AP - 111

AGWMR

2016

Western Refining Southwest, Inc.
A subsidiary of Marathon Petroleum Corporation

November 13, 2020

Kevin Pierard, Chief
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

RE: Response to Disapproval
Revised Annual Groundwater Monitoring Report Gallup Refinery - 2016
Western Refining Southwest, Inc. – Gallup Refinery
EPA ID # NMD000333211
HWB-WRG-17-008

Dear Mr. Pierard:

Marathon Petroleum Company LP (dba Western Refining Southwest, Inc.) Gallup Refinery is submitting the enclosed response to your Disapproval dated January 8, 2019 on the referenced Report. You will also find the revised 2016 Annual Report and an electronic redline version of the Report. If there are any questions, please call Greg McCartney at 419-421-2338.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,
Marathon Petroleum Company LP, Gallup Refinery

Robert S. Hanks
Refinery General Manager

Enclosure

cc D. Cobrain, NMED HWB
C. Chavez, NMOCD
G. McCartney, Marathon

RESPONSE TO APPROVAL WITH MODS

April 24, 2020 – Sanitary Lagoon Investigation Report (February 2020)

NMED Comment 1:

An electronic version of the response to comments table was not included in the submittal. For all future submittals including the revised Report, provide both hard copies and an electronic version of the response to comments table along with other required documentation. In addition, the Permittee did not list sections, tables and/or figures in the Report where changes were made, as required, in the response to comments table. Indicate where all changes were made to the Report in the response to comments table.

MPC Response:

The comment is acknowledged.

NMED Comment 2:

All revisions were not identified in the Redline Strikeout (RLSO) version. The RLSO version must identify where all revisions are made to the previous version of the Report, including the revisions made to the tables, charts and figures. Failure to provide an accurate RLSO version slows review, creates the potential for changes to be overlooked, and is misleading. Provide an accurate RLSO version of the revised Report.

MPC Response:

There are two redline strikeout versions included on the enclosed CD. One shows the changes to address the initial comment letter that was submitted in September 2018 and the second has only the changes made per this comment letter.

NMED Comment 3:

The depth-to-water (DTW) measurement data for MKTF wells during the first and second quarters of 2016 are tabulated in Appendix B, *Field Inspection Logs;* however, DTW data for other wells are not tabulated. A table showing the 2016 DTW data for all groundwater monitoring wells must be included in the revised Report. In addition, the DTW tables must include the monitoring well depths, the screened intervals in each well, and the dates and times of measurement as required by the Permit Section IV.L.4.k (2).

MPC Response:

Tables 9.1 and 9.2 are included in the revised Report to show the DTW data for all wells along with additional requested information (e.g., well depths, screen intervals, etc.).

NMED Comment 4:

The Permittee's response to NMED's *Disapproval* Comment 1 states, "[i]t is noted that Gallup Refinery is in the process of installing pneumatic pumps in all existing recovery wells in order to capture non-aqueous phase liquids (NAPL) as well as impacted groundwater." Prior to installation, the Permittee must submit a work plan to NMED for review. Refer also to Comment 9 in the NMED's *Disapproval/or the Revised 2015 Annual Groundwater Monitoring Report,* dated January 4, 2019.

MPC Response:

The comment is acknowledged and the requested work plan was submitted.

NMED Comment 5:
The Permittee's response to NMED's *Disapproval* Comment 4 states, "[i]t is noted that the Gallup Refinery intends to install an interim recovery system in the area to initiate the recovery of impacted groundwater until permanent system can be designed. See response to Item 2 above." The referenced Item 2 is pertaining to the installation of pneumatic pumps in the RW wells located in the tank farm area. Comment 4 pertains to the six recovery sumps (stand pipes) in the hydrocarbon seep area. Interim corrective measures have already been implemented at the hydrocarbon seep area. Clarify the intent of the statement in the revised Report.

MPC Response:
The increase in recovery volumes is now discussed on page 23 and it was further noted that there were no changes in the recovery method that could explain the increase in recovery volumes.

NMED Comment 6:
The Permittee's response to NMED's *Disapproval* Comment 5 states, "[t]he text has been corrected to reference Table 9.1 and 9.2 as requested." Although the text was corrected, Tables 9.1 and 9.2 were not included. Include the tables in the revised Report.

MPC Response:
Tables 9.1 and 9.2 have been added to the Report.

NMED Comment 7:
The Permittee's response to NMED's *Disapproval* Comment 10, Item 7 states, "[t]he discussion has been modified to reflect that the lead concentrations in September and November 2014 exceeded the cleanup standard by a small margin." The lead concentrations in groundwater samples collected from well NAPIS-3 did not exceed standard in either September or November 2014. However, as stated in Comment 10.7, the lead concentrations in the groundwater samples collected from well NAPIS-3 exceeded standard during the third and fourth quarters of 2016. In addition, the text was incorrectly modified to address the exceedance of lead concentrations for well NAPIS-2 rather than NAPIS-3. The discussion is pertinent to NAPIS-3. Revise the response and the Report for accuracy.

MPC Response:
The report (page 33) has been revised to note the exceedance of the screening level of lead at NAPIS-3.

NMED Comment 8:
The Permittee's response to NMED's *Disapproval* Comment 10, Item 8 states, "[t]he discussion has been modified to reflect the detection of the additional constituents." In Section 6.2.2, the Permittee states, "[i]n the fourth quarter well NAPIS-3 had detections below the applicable groundwater protection standards of naphthalene, 1, 1-dicloroethane, 1, 1-dichloroethene, isopropyl benzene, n-butyl benzene, sec-butyl benzene, and cis-bichloroethylene [sic]." These constituents were detected in the first quarter of 2016 rather than the fourth quarter. In addition, there is a typo graphical error (cis-bichloroethylene) in the statement. Revise the Report accordingly.

MPC Response:
The discussion on page 33 has been revised to refer to cis-1,2-dichloroethylene and the reference to fourth quarter has been changed to first quarter.

NMED Comment 9:

The Permittee's response to NMED's *Disapproval* Comment 11, Item 1 states, "[a] discussion of the analytical data obtained from the leak detection system has been added. Gallup Refinery submitted information to the NMED on July 16, 2018 documenting repairs to the NAPIS, therefore, it should be noted that samples collected from the LDUs are not perceived to be wastewater." Comment 11.1 directs the Permittee to include a discussion pertaining to metal detections in wastewater samples collected from West LDU; however, the discussion was not included in the revised Report. Include the discussion in the revised Report. In addition, the Permittee states that the water collected in the LDUs are not wastewater because the NAPIS was repaired. However, the repairs were conducted on September 1, and December 11, 2017. At the time when the samples were collected in 2016, the LDUs were not yet repaired; therefore, the statement is not applicable. Regardless, previous repairs on NAPIS indicated that the attempts did not completely prevent leakage in most cases. The completion of repairs is not always successful. In Section 6.2.3, the Permittee also states, "Artesian flow has been observed from the East LDU wells is the past. The liner of the treatment unit has been evaluated for leaks and appears to be water-tight. For these reasons it appears that the East LDU may have leaks that allow impacted groundwater to enter. Andeavor will further evaluate the possible source of the contaminants detected within the LDU." Explain what is meant by "Artesian flow has been observed from the East LDU." It should be noted that the LDUs are not screened wells; they are constructed with stainless steel pipes directly connected to the secondary containment wall of NAPIS. The Permittee's August 5, 2013 letter titled *API Separator Leak Detection Units,* states, "[t]he water table in this area is approximately 9 - 10 feet below the ground surface. NAPIS-1 total depth is 13.53 feet and NAPIS-2 total depth is 13.61 feet, and the East and West LDUs are approximately 8 - 9 feet below ground surface." Based on the information, groundwater unlikely intersects with the bottom of the LDUs. Even if groundwater intersects the bottom of the LDUs, it will not likely flow into the LDUs because of the nature of their construction unless there are holes in the outer walls of the LDUs. Therefore, the Permittee's discussion does not appear to make sense. Remove the discussion or provide additional details to support the discussion. Revise the Report accordingly.

MPC Response:

Additional discussion has been added to Section 6.2.3 (page 34) regarding detections of metals at the West LDU. The reference to “artesian flow” at the East LDU is due to the fact that when the cap was removed from the sample port, water was present at the top of the tube. The related discussion on page 34 has been removed.

NMED Comment 10:

NMED's *Disapproval* Comment 11, Item 2 states, "[t]he analytical results of VOCs for the third quarter of 2016 are not included in Table 8.10.3. Include the results for the third quarter of 2016 sampling in Table 8.10.3." The analytical results of VOCs for the third quarter of 2016 were not included. Include the results or explain why the results are not included in the revised Report. In Section 6.2.3, the Permittee states,"[c]oncentrations of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene exceeded the EPA RSL and NMED standards in the East LDU in the first, second and third quarter of 2016." As stated in Comment 11.2, there are no NMED standards for 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene. Revise the Report accordingly.

MPC Response:

The LDUs (all three) were dry during the third quarter sampling event, thus no samples were collected and there are no results reported for the third quarter. The reference to the third quarter

exceedance of standards has been removed. The related discussion on page 34 is revised. The reference to “NMED standards” has been removed on page 34.

NMED Comment 11:

The Permittee's response to NMED's *Disapproval* Comment 11, Item 2 also states, "Tables associated with the Leak Detection Unit have been revised to reflect no cleanup standards exists for 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene." The Permittee revised the tables by removing the EPA Regional Screening Levels (RSLs) for Tap Water; however, Comment 11, Item 2 states that there are no NMED standards for these compounds. It is appropriate to use EPA RSLs for these compounds. Include the EPA RS Ls to evaluate concentrations of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene. Revise the tables accordingly.

MPC Response:

Table 8.10.3 has been revised to include the EPA RSLs for 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene.

NMED Comment 12

NMED's *Disapproval* Comment 12 states, "[t]he bis(2-ethylhexyl) phthalate concentrations detected in the groundwater samples collected from well OAPIS-1 were above the standard in 2016." The exceedance was not addressed in the Report. Address the exceedance in the revised Report.

MPC Response:

The discussion in Section 6.2.4 (page 35) has been revised to note the exceedance of the bis(2-ethylhexyl) phthalate screening level.

NMED Comment 13:

The Permittee's response to NMED's *Disapproval* Comment 14 states, "MTBE samples will be scheduled for collection from STP1-NW." The response did not fully address Comment 14. MTBE has been analyzed for samples collected from well STPI-NW in the past. Comment 14 directs the Permittee to collect samples from STP-1 to compare MTBE concentrations between the samples collected from STP-1 and well STP1-NW and evaluate potential leaks from STP-1. Revise the response to fully address Comment 14.

MPC Response:

Water samples are collected from STP-1 before it discharges to EP-2 (STP-1 to EP-2) and the results are provided in Table 8.16. As aeration units are continuously operated in STP-1, it may not be possible to collect an “untreated wastewater sample from STP-1” as originally requested in NMED Disapproval Comment 14. MTBE was not detected in these samples collected in 2016.

NMED Comment 14:

The Permittee's response to NMED's *Disapproval* Comment 18 states, "[l]anguage acknowledging the detections has been added as well as proposed changes to sampling frequency and modifications to the sampling plan regarding frequency of sample collection for OW-50 and 52." Section 6.3.2 states that the Facility Groundwater Monitoring Plan will also be modified to reflect the more frequent sampling schedule as will Table 1, Section 10 (sampling frequency) of this report as well as the Facility Wide Groundwater Monitoring Plan. The referenced table (Table 1, Section 10) is not included in the Report. Include the table in the revised Report.

MPC Response:

The table in Section 10 has been added to the Report and the sampling frequency was changed to quarterly for OW-50 and OW-52.

NMED Comment 15:

The Permittee's response to NMED's *Disapproval* Comment 20 states, "[t]he last report that included VOCs was submitted August 24, 2016 and no organic constituents were detected [in the samples collected from the PW wells]." However, Section 6.4.1 of the Report states, "[t]here were a total of five organic constituents detected in PW-3 all at concentration below the applicable standards in 2016 ... 10 organic compounds were detected at concentration levels below the applicable standards in PW-4." The response contradicts the 2016 analytical results. Provide more detailed explanation for the response and provide a copy of the August 24, 2016
report.

MPC Response:

The response was simply noting the results of the additional samples collected pursuant to the requirements of the NMED Drinking Water Program. The requested Drinking Water Report results are enclosed showing sample results for 2016.

NMED Comment 16:

The Permittee's response to NMED's *Disapproval* Comment 23, Item 1 states, "[w]ells contained SPH them [sic] are identified in the data summary tables. The requested revisions have been added to the report." The data tables of the 2016 third and fourth quarter measurements for the MKTF wells are not included. Include the data tables in the revised Report. In addition, Section 6.6 was revised to state, "[d]uring the fourth quarter 2016, SPH was detected in wells MKTF-01 (1.35'), MKTF-26 (1.39'), MKTF-23 (0.12'), MKTF-14 (1. 10'), MKTF-13 (0.96'), MKTF-12 (0.29'), MKTF-37, MKTF-45 (0.46')." SPH was detected in other MKTF wells that were not listed in the statement during the first and second quarters of 2016 as well. Section 6.6 must include the discussion regarding the detections of SPH in the MKTF wells during all quarters of 2016. Revise the Report accordingly.

MPC Response:

The data tables of the third and fourth quarter measurements for the MKTF wells are provided in Table 9.2. The discussion in Section 6.6 on page 43 has been revised to summarize all of the detections of SPH in 2016.

NMED Comment 17:

NMED's *Disapproval* Comment 23, Item 11 states, "[a]ccording to Table 8.17.1, the sulfate concentrations in the groundwater samples collected from wells MKTF-29 and MKTF-43 exceeded the standard in 2016. Include and discuss the exceedance in the revised Report." Although the Permittee's response states that the requested revisions have been added to the Report, the revisions were not included in the Report. Include and discuss the exceedance in the revised Report.

MPC Response:

The exceedances of sulfate have been added to the discussion in Section 6.6 and correction was made to remove the discussion of sulfate that was under the total metals discussion.

NMED Comment 18:

NMED's *Disapproval* Comment 23, Item 13 states, "[t]he total barium concentrations in the groundwater samples collected from wells MKTF-18 through MKTF-22 also exceeded the standard in 2016." The discussion regarding the exceedances in the samples collected from wells MKTF-18 and 22 were

included in the Report; however, the exceedances in wells MKTF-19, 20 and 21 were not discussed. Include the discussion regarding the barium concentration exceedances in groundwater samples collected from wells MKTF-19, 20 and 21 in the revised Report.

MPC Response:

The Report (Section 6.6) was revised to include MKTF-19, -20, and -21 as exceeding for total barium. It was also observed that the text incorrectly identified MKTF-2 as exceeding for total barium instead of MKTF-1 and this was revised.

NMED Comment 19:

NMED's *Disapproval* Comment 23, Item 17 states, "[b]utylbenzene is not listed in Table 8.17.4, *MKTF WELLS Semi-Volatile Organic Compound Analytical Result Summary.*" Butylbenzene is listed as one of SVOCs that were detected above the standard in Section 6.6 of the Report; however, Table 8.17.4 does not list butylbenzene. Either the text of the Report in Section 6.6 or Table 8.17.4 must be corrected to resolve the discrepancy. Revise the Report accordingly.

MPC Response:

The reference to butylbenzene in Section 6.6 has been removed from the Report as it was apparently confused with butyl benzene phthalate.

NMED Comment 20:

The Permittee's response to NMED's *Disapproval* Comment 24 states, "Gallup Refinery is not aware of any discharges to the ponds that could result in such BTEX detections." However, BTEX concentrations have been detected in samples collected from the ponds. If there are no discharges to the ponds other than-from STP-1, either the wastewater treatment system is not capable of removing BTEX or BTEX leached into the ponds from groundwater. Evaluate wastewater treatment system breakthrough for BTEX constituents. Also, compare the depths of the ponds where BTEX were detected to evaluate whether groundwater potentially leaches into the ponds. Since the ponds are unlined earthen structures, if groundwater potentially leaches into the ponds, the water stored in the ponds also may migrate to groundwater. In this case, the integrity of the ponds must be evaluated. Include the discussion in the revised Report.

MPC Response:

A review of the water levels in the ponds in comparison to the potentiometric surface of the groundwater in nearby monitoring wells shows a consistent downward gradient such that groundwater would not be “leaching” into the ponds. An examination of historical water analyses for samples collected at the STP-1 to EP-2 outfall before 2016 indicates that benzene was discharged in the past and possibly that could explain the low detections observed in 2016.

NMED Comment 21:

The Permittee's response to NMED's *Disapproval* Comment 25, Item 5 states, "[t]he requested revisions were added to the report." Section 6.7.1 was revised to state, "[s]ee table 8.15.4 for a complete list of VOCs." However, the revision was incorrect. The revision must be made to state, "[s]ee Table 8.15.5 for a complete list of SVOCs" because the relevant text discusses the detection of SVOCs. Revise the Report accordingly.

MPC Response:

The reference in Section 6.7.1 has been changed from 8.15.4 to 8.15.5.

NMED Comment 22:
The Permittee's response to NMED's *Disapproval* Comment 29 states, "[t]he requested revisions were added to the report." Section 7.1 was revised to state, "[f]ive organic constituents were detected at concentration levels below the applicable standards in 2016 (Benzoic acid, bis(2-ethylhexyl) phthalate, di-n-octyl phthalate, dimethyl phthalate, and phenol)." The revision was incorrect. The detection of phenol is not recorded while the pyrene concentration is reported as 0.0046 mg/L in the sample collected from well SMW-2 according to Table 8.3.4. Revise the Report accordingly.

MPC Response:
The reference to phenol in the discussion in Section 7.1 (page 50) has been revised to reference pyrene.

NMED Comment 23:
NMED's *Disapproval* Comment 34 states, "[a] column listing barium concentrations is missing from Table 8.8.3. Include the column for barium concentrations on Table 8.8.3 in the revised Report." The column was still missing from the Report. Include the column for barium concentrations in the table in the revised Report.

MPC Response:
The column in Table 8.8.3 for dissolved barium has been added. The discussion in Section 6.2.2 (page 33) has been revised to correct errors regarding the detection of dissolved metals.

NMED Comment 24:
The Permittee's response to NMED's *Disapproval* Comment 40 states, "[t]he source of the cyanide is unknown as it is not used as a feedstock in any of the processes at the refinery." Although cyanide is not used as a feedstock, Fluid Catalytic Cracking Unit (FCCU) may generate cyanides in the waste stream and some crude oil may contain cyanide. An increase of cyanide concentrations in the groundwater samples collected from well OAPIS-1 was observed and must be closely monitored.

MPC Response:
The comment is acknowledged.

NMED Comment 25:
The Permittee's response to NMED's *Disapproval* Comment 45 states, "[a]n attempt was made to locate all records of spills, leaks and releases in order to update the report. A revised summary is provided in Appendix E of the attached report." Since no additional spill record was included between October 5, 2016 and the end of 2016, it is not clear which parts in the summary (Appendix E) were updated. Comment 45 requires the Permittee to clarify whether leaks, spills or releases have occurred between October 5, 2016 and December 31, 2016. The clarification is not provided. Indicate which parts in Appendix E were updated in the revised Report.

MPC Response:
No additional spills, leaks, or releases were identified for 2016. There are no changes to Appendix E.

NMED Comment 26:
In Section 6.6, *Constituent Levels for MKTF Wells,* the Permittee states, "[c]hloride concentration exceedances above the standard (250 mg/L) were found in the following wells: MKTF-1, MKTF-2, MKTF-10, MKTF-11, MKTF-15, MKTF-16, MKTF-20, MKTF-15, MKTF-24, MKTF-25, MKTF-26, MKTF-27, MKTF-28, MKTF-30, MKTF-31, MKTF-32, MKTF-34, MKTF-38, MKTF-39, MKTF-40, MKTF-41, MKTF-42, MKTF-43, and MKTF-44 (Table 8.17.1)." MKTF-15 is listed twice. Remove the repetition from the revised Report.

MPC Response:
The duplicate reference to MKTF-15 in Section 6.6 was removed.

NMED Comment 27:
In Section 6.6, *Constituent Levels for MKTF Wells,* the Permittee indicates the screening levels for 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene as "no cleanup standard in guidance". Although there are no NMED standards for 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene, it is appropriate to use EPA RSLs for these compounds. Refer to Comment 11. Include the EPA RSLs to evaluate the detections of l,2,4-trimethylbenzene and 1,3,5-trimethylbenzene. Revise the Report accordingly.

MPC Response:
The references to "no cleanup standard in guidance" have been deleted from the discussion in Section 6.6 and the EPA RSLs were restored in the table; refer to Comment 11 above.

NMED Comment 28:
In Section 6.7.1, *Evaporation Ponds 1 through 12B,* the Permittee states, "[t]he presence of Escherichia coli in water is used as an indicator of fecal contamination, but recent reports indicate that soil populations can also be detected in tropical, subtropical, and some temperate environments. The presence of significant populations of naturalized populations of E. coli in temperate soils may confound the use of this bacterium as an indicator of fecal contamination." According to Section 1.3, *Site Characteristics,* at least three off site ponds are present near the refinery. Propose to collect the water samples from the offsite ponds to compare e-coli concentrations in the water samples to the e-coli concentrations in ponds EP 1 through EP 12B, if necessary. Evaluate whether the cause of elevated e-coli concentrations is fecal in the revised Report, if necessary.

MPC Response:
As noted in Section 1.3, the three ponds are located off-site. These off-site ponds are not accessible to MPC. Perhaps NMED can use its authority to gain access to these locations for future sampling, which of course should be discussed in future monitoring reports and not past reports as any "new data" was not available during the subject 2016 reporting period.

The comment further instructs Western to evaluate "whether the cause of elevated e-coli concentrations is fecal." That evaluation was completed during preparation of the 2016 report and the subsequent findings included in Section 1.3. Further review regarding potential sources of e-coli identified the following "*Escherichia coli* (abbreviated as *E. coli*) are bacteria found in the environment, foods, and intestines of people and animals. *E. coli* are a large and diverse group of bacteria." The source of this description is www.usgs.gov/special-topic/water-science-school/science/bacteria-and-e-coli-water. This further supports the earlier findings that e. coli may generally be found in the "environment" although it is routinely attributed to either human or animal wastes.

NMED Comment 29:
In Section 7.2, *Group B - Groundwater Monitoring,* the Permittee states, "[b]oth LDUs continue to be pumped on a regular basis. The East Bay of the LDU was out of service and closed in 2015. The presence of water in the East LDU during that period suggests that there may be an inflow of groundwater through an opening in the liner. Andeavor intends to conduct testing on the LDU to ascertain the source of the water in the East LDU. Recent water column measurements on the West LDU also indicate that the bay is leaking into the LDU, or that there is a source of inflow into the LDU. Plans are to inspect the east bay, place it back in service and then take the west bay out of service for inspection." It is not likely that groundwater flows into the LDUs. Refer to Comment 9. Remove the statement or provide

additional details to support the statement. Revise the Report accordingly. In addition, clarify whether the inspection of the bays is currently planned or the plans have already been already executed in 2017. If there are still ongoing leaks (e.g., detection of wastewaters in the LDUs), the Permittee must propose to submit a work plan to inspect and repair the NAPIS.

MPC Response:

The reference to "groundwater" in the discussion in Section 7.2 (page 51) has been removed so that the text only notes there may be inflow through an opening in the liner without identification of an actual source.

Of course, the Report was prepared in 2017 to describe actions taken in 2016 and the recommendations discussed future plans. See Comment 9 above regarding subsequent actions regarding the LDUs. No revisions are made to the report per this comment as the subsequent actions occurred during later reporting periods.

Tables

Drinking Water Branch

Return Links

Water System Search

County Map

Glossary

Non-Coliform Samples

Principal County Served	Water System No.	Water System Name	Lab Sample No.	Type	Collection Date	Sampling Point
MCKINLEY	NM3560017	WESTERN REFINING SW, INC WINGATE	2016025135	RT	08-24-2016	SP600170051
MCKINLEY	NM3560017	WESTERN REFINING SW, INC WINGATE	2016025137	RT	08-24-2016	SP600170051
MCKINLEY	NM3560017	WESTERN REFINING SW, INC WINGATE	2016025139	RT	08-24-2016	SP600170051
MCKINLEY	NM3560017	WESTERN REFINING SW, INC WINGATE	2016025141	RT	08-24-2016	SP600170051
MCKINLEY	NM3560017	WESTERN REFINING SW, INC WINGATE	2016025143	RT	08-24-2016	SP600170051
MCKINLEY	NM3560017	WESTERN REFINING SW, INC WINGATE	2016025146	RT	08-24-2016	SP600170051
MCKINLEY	NM3560217	WESTERN REFINING	1612E39-001	RT	12-28-2016	SP602170001

		SW, GALLUP REFINERY					
MCKINLEY	NM3560217	WESTERN REFINING SW, GALLUP REFINERY	1612E40-001	RT	12-28-2016	SP602170041
MCKINLEY	NM3560217	WESTERN REFINING SW, GALLUP REFINERY	1612A41-001	RT	12-14-2016	SP602170041
MCKINLEY	NM3560217	WESTERN REFINING SW, GALLUP REFINERY	1612A41-002	RT	12-14-2016	SP602170041
MCKINLEY	NM3560217	WESTERN REFINING SW, GALLUP REFINERY	1612A42-001	RT	12-14-2016	SP602170001
MCKINLEY	NM3560217	WESTERN REFINING SW, GALLUP REFINERY	1610061-001A	RT	09-22-2016	TTHM-IND
MCKINLEY	NM3560217	WESTERN REFINING SW, GALLUP REFINERY	1610793-001	RT	09-22-2016	SP602170001
MCKINLEY	NM3560217	WESTERN REFINING SW, GALLUP REFINERY	1610793-002	RT	09-22-2016	SP602170001
MCKINLEY	NM3560217	WESTERN REFINING SW, GALLUP REFINERY	1610793-003	RT	09-22-2016	SP602170001
MCKINLEY	NM3560217	WESTERN REFINING SW, GALLUP REFINERY	1610793-004	RT	09-22-2016	SP602170001
MCKINLEY	NM3560217	WESTERN REFINING SW, GALLUP REFINERY	1610793-005	RT	09-22-2016	SP602170001

	MCKINLEY	NM3560217	WESTERN REFINING SW, GALLUP REFINERY	2016025136	RT	08-24-2016	SP602170041
	MCKINLEY	NM3560217	WESTERN REFINING SW, GALLUP REFINERY	2016025138	RT	08-24-2016	SP602170041
	MCKINLEY	NM3560217	WESTERN REFINING SW, GALLUP REFINERY	2016025140	RT	08-24-2016	SP602170041
	MCKINLEY	NM3560217	WESTERN REFINING SW, GALLUP REFINERY	2016025142	RT	08-24-2016	SP602170041
	MCKINLEY	NM3560217	WESTERN REFINING SW, GALLUP REFINERY	2016025144	RT	08-24-2016	SP602170041
	MCKINLEY	NM3560217	WESTERN REFINING SW, GALLUP REFINERY	2016025145	RT	08-24-2016	SP602170041

Non-Coliform Sample Results

Water System No. :	NM3560017	**Federal Type :**	NP
Water System Name :	WESTERN REFINING SW, INC WINGATE	**Principal Cnty Served :**	MCKINLEY
Lab Sample No. :	2016025135	**Collection Date :**	08-24-2016

Analyte Code	Analyte Name	Method Code	Less than Indicator	Level Type	Reporting Level	Concentration level	Monitoring Period Begin Date	Monitoring Period End Date
2005	ENDRIN	525.2	Y	MRL	0.019 UG/L		01-01-2014	12-31-2016
2010	BHC-GAMMA	525.2	Y	MRL	0.019 UG/L		01-01-2014	12-31-2016
2015	METHOXYCHLOR	525.2	Y	MRL	0.024 UG/L		01-01-2014	12-31-2016
2020	TOXAPHENE	508.1	Y	MRL	0.037 UG/L		01-01-2014	12-31-2016
2031	DALAPON	515.4	Y	MRL	0.38 UG/L		01-01-2014	12-31-2016
2032	DIQUAT	549.2	Y	MRL	0.82 UG/L		01-01-2014	12-31-2016
2033	ENDOTHALL	548.1	Y	MRL	17.6 UG/L		01-01-2014	12-31-2016
2034	GLYPHOSATE	547	Y	MRL	11.1 UG/L		01-01-2014	12-31-2016
2035	DI(2-ETHYLHEXYL) ADIPATE	525.2	Y	MRL	1 UG/L		01-01-2014	12-31-2016
2036	OXAMYL	531.2	Y	MRL	1 UG/L		01-01-2014	12-31-2016
2037	SIMAZINE	525.2	Y	MRL	0.022 UG/L		01-01-2014	12-31-2016
2039	DI(2-ETHYLHEXYL) PHTHALATE	525.2	Y	MRL	1 UG/L		01-01-2014	12-31-2016
2040	PICLORAM	515.4	Y	MRL	0.21 UG/L		01-01-2014	12-31-2016
2041	DINOSEB	515.4	Y	MRL	0.34 UG/L		01-01-2014	12-31-2016
2042	HEXACHLOROCYCLOPENTADIENE	525.2	Y	MRL	0.021 UG/L		01-01-2014	12-31-2016
2046	CARBOFURAN	531.2	Y	MRL	1.3 UG/L		01-01-2014	12-31-2016
2050	ATRAZINE	525.2	Y	MRL	0.031 UG/L		01-01-2014	12-31-2016
2051	LASSO	525.2	Y	MRL	0.032 UG/L		01-01-2014	12-31-2016
2065	HEPTACHLOR	525.2	Y	MRL	0.019 UG/L		01-01-2014	12-31-2016
2067	HEPTACHLOR EPOXIDE	525.2	Y	MRL	0.026 UG/L		01-01-2014	12-31-2016
2105	2,4-D	515.4	Y	MRL	0.21 UG/L		01-01-2014	12-31-2016
2110	2,4,5-TP	515.4	Y	MRL	0.13 UG/L		01-01-2014	12-31-2016
2274	HEXACHLOROBENZENE	525.2	Y	MRL	0.014 UG/L		01-01-2014	12-31-2016
2306	BENZO(A)PYRENE	525.2	Y	MRL	0.037 UG/L		01-01-2014	12-31-2016
2326	PENTACHLOROPHENOL	515.4	Y	MRL	0.065 UG/L		01-01-2014	12-31-2016
2383	TOTAL POLYCHLORINATED BIPHENYLS (PCB)	508.1	Y	MRL	0.004 UG/L		01-01-2014	12-31-2016
2931	1,2-DIBROMO-3-CHLOROPROPANE	504.1	Y	MRL	0.02 UG/L		01-01-2014	12-31-2016
2946	ETHYLENE DIBROMIDE	504.1	Y	MRL	0.005 UG/L		01-01-2014	12-31-2016
2959	CHLORDANE	508.1	Y	MRL	0.009 UG/L		01-01-2014	12-31-2016

Non-Coliform Sample Results

Water System No. :	NM3560017	**Federal Type :**	NP
Water System Name :	WESTERN REFINING SW, INC WINGATE	**Principal Cnty Served :**	MCKINLEY
Lab Sample No. :	2016025137	**Collection Date :**	08-24-2016

Analyte Code	Analyte Name	Method Code	Less than Indicator	Level Type	Reporting Level	Concentration level	Monitoring Period Begin Date	Monitoring Period End Date
2378	1,2,4-TRICHLOROBENZENE	524.2	Y	MRL	0.2 UG/L		01-01-2014	12-31-2016
2380	CIS-1,2-DICHLOROETHYLENE	524.2	Y	MRL	0.1 UG/L		01-01-2014	12-31-2016
2955	XYLENES, TOTAL	524.2	Y	MRL	0.5 UG/L		01-01-2014	12-31-2016
2964	DICHLOROMETHANE	524.2	Y	MRL	0.5 UG/L		01-01-2014	12-31-2016
2968	O-DICHLOROBENZENE	524.2	Y	MRL	0.2 UG/L		01-01-2014	12-31-2016
2969	P-DICHLOROBENZENE	524.2	Y	MRL	0.2 UG/L		01-01-2014	12-31-2016
2976	VINYL CHLORIDE	524.2	Y	MRL	0.3 UG/L		01-01-2014	12-31-2016
2977	1,1-DICHLOROETHYLENE	524.2	Y	MRL	0.1 UG/L		01-01-2014	12-31-2016
2979	TRANS-1,2-DICHLOROETHYLENE	524.2	Y	MRL	0.1 UG/L		01-01-2014	12-31-2016
2980	1,2-DICHLOROETHANE	524.2	Y	MRL	0.2 UG/L		01-01-2014	12-31-2016
2981	1,1,1-TRICHLOROETHANE	524.2	Y	MRL	0.1 UG/L		01-01-2014	12-31-2016
2982	CARBON TETRACHLORIDE	524.2	Y	MRL	0.4 UG/L		01-01-2014	12-31-2016
2983	1,2-DICHLOROPROPANE	524.2	Y	MRL	0.1 UG/L		01-01-2014	12-31-2016
2984	TRICHLOROETHYLENE	524.2	Y	MRL	0.1 UG/L		01-01-2014	12-31-2016
2985	1,1,2-TRICHLOROETHANE	524.2	Y	MRL	0.1 UG/L		01-01-2014	12-31-2016
2987	TETRACHLOROETHYLENE	524.2	Y	MRL	0.1 UG/L		01-01-2014	12-31-2016
2989	CHLOROBENZENE	524.2	Y	MRL	0.2 UG/L		01-01-2014	12-31-2016
2990	BENZENE	524.2	Y	MRL	0.1 UG/L		01-01-2014	12-31-2016
2991	TOLUENE	524.2	Y	MRL	0.5 UG/L		01-01-2014	12-31-2016
2992	ETHYLBENZENE	524.2	Y	MRL	0.5 UG/L		01-01-2014	12-31-2016
2996	STYRENE	524.2	Y	MRL	0.5 UG/L		01-01-2014	12-31-2016

Non-Coliform Sample Results

Water System No. :	NM3560017	**Federal Type :**	NP
Water System Name :	WESTERN REFINING SW, INC WINGATE	**Principal Cnty Served :**	MCKINLEY
Lab Sample No. :	2016025139	**Collection Date :**	08-24-2016

Analyte Code	Analyte Name	Method Code	Less than Indicator	Level Type	Reporting Level	Concentration level	Monitoring Period Begin Date	Monitoring Period End Date
1005	ARSENIC	200.8	Y	MRL	0.001 MG/L		01-01-2014	12-31-2016
1010	BARIUM	200.8	Y	MRL	0.1 MG/L		01-01-2014	12-31-2016
1015	CADMIUM	200.8	Y	MRL	0.001 MG/L		01-01-2014	12-31-2016
1020	CHROMIUM	200.8	Y	MRL	0.001 MG/L		01-01-2014	12-31-2016
1035	MERCURY	245.1	Y	MRL	0.0002 MG/L		01-01-2014	12-31-2016
1036	NICKEL	200.8	Y	MRL	0.01 MG/L		01-01-2014	12-31-2016
1045	SELENIUM	200.8	Y	MRL	0.005 MG/L		01-01-2014	12-31-2016
1052	SODIUM	200.7	N	MRL	2 MG/L	140.000 MG/L		
1074	ANTIMONY, TOTAL	200.8	Y	MRL	0.001 MG/L		01-01-2014	12-31-2016
1075	BERYLLIUM, TOTAL	200.8	Y	MRL	0.001 MG/L		01-01-2014	12-31-2016
1085	THALLIUM, TOTAL	200.8	Y	MRL	0.001 MG/L		01-01-2014	12-31-2016

Non-Coliform Sample Results

Water System No. :	NM3560017	**Federal Type :**	NP
Water System Name :	WESTERN REFINING SW, INC WINGATE	**Principal Cnty Served :**	MCKINLEY
Lab Sample No. :	2016025141	**Collection Date :**	08-24-2016

Analyte Code	Analyte Name	Method Code	Less than Indicator	Level Type	Reporting Level	Concentration level	Monitoring Period Begin Date	Monitoring Period End Date
1024	CYANIDE	10-204-00-1X	Y	MRL	0.005 MG/L		01-01-2014	12-31-2016

Non-Coliform Sample Results

Water System No. :	NM3560017	**Federal Type :**	NP
Water System Name :	WESTERN REFINING SW, INC WINGATE	**Principal Cnty Served :**	MCKINLEY
Lab Sample No. :	2016025143	**Collection Date :**	08-24-2016

Analyte Code	Analyte Name	Method Code	Less than Indicator	Level Type	Reporting Level	Concentration level	Monitoring Period Begin Date	Monitoring Period End Date
1025	FLUORIDE	4500F-C	N	MRL	0.1 MG/L	0.43 MG/L	01-01-2014	12-31-2016

Non-Coliform Sample Results

Water System No. :	NM3560017	**Federal Type :**	NP
Water System Name :	WESTERN REFINING SW, INC WINGATE	**Principal Cnty Served :**	MCKINLEY
Lab Sample No. :	2016025146	**Collection Date :**	08-24-2016

Analyte Code	Analyte Name	Method Code	Less than Indicator	Level Type	Reporting Level	Concentration level	Monitoring Period Begin Date	Monitoring Period End Date
1038	NITRATE-NITRITE	353.2	Y	MRL	0.1 MG/L		01-01-2016	12-31-2016

Non-Coliform Sample Results

Water System No. :	NM3560217	**Federal Type :**	NTNC
Water System Name :	WESTERN REFINING SW, GALLUP REFINERY	**Principal Cnty Served :**	MCKINLEY
Lab Sample No. :	2016025136	**Collection Date :**	08-24-2016

Analyte Code	Analyte Name	Method Code	Less than Indicator	Level Type	Reporting Level	Concentration level	Monitoring Period Begin Date	Monitoring Period End Date
2005	ENDRIN	525.2	Y	MRL	0.019 UG/L		01-01-2014	12-31-2016
2010	BHC-GAMMA	525.2	Y	MRL	0.019 UG/L		01-01-2014	12-31-2016
2015	METHOXYCHLOR	525.2	Y	MRL	0.024 UG/L		01-01-2014	12-31-2016
2020	TOXAPHENE	508.1	Y	MRL	0.037 UG/L		01-01-2014	12-31-2016
2031	DALAPON	515.4	Y	MRL	0.38 UG/L		01-01-2014	12-31-2016
2032	DIQUAT	549.2	Y	MRL	0.82 UG/L		01-01-2014	12-31-2016
2033	ENDOTHALL	548.1	Y	MRL	17.6 UG/L		01-01-2014	12-31-2016
2034	GLYPHOSATE	547	Y	MRL	11.1 UG/L		01-01-2014	12-31-2016
2035	DI(2-ETHYLHEXYL) ADIPATE	525.2	Y	MRL	1 UG/L		01-01-2014	12-31-2016
2036	OXAMYL	531.2	Y	MRL	1 UG/L		01-01-2014	12-31-2016
2037	SIMAZINE	525.2	Y	MRL	0.022 UG/L		01-01-2014	12-31-2016
2039	DI(2-ETHYLHEXYL) PHTHALATE	525.2	Y	MRL	1 UG/L		01-01-2014	12-31-2016
2040	PICLORAM	515.4	Y	MRL	0.21 UG/L		01-01-2014	12-31-2016
2041	DINOSEB	515.4	Y	MRL	0.34 UG/L		01-01-2014	12-31-2016
2042	HEXACHLOROCYCLOPENTADIENE	525.2	Y	MRL	0.021 UG/L		01-01-2014	12-31-2016
2046	CARBOFURAN	531.2	Y	MRL	1.3 UG/L		01-01-2014	12-31-2016
2050	ATRAZINE	525.2	Y	MRL	0.031 UG/L		01-01-2014	12-31-2016
2051	LASSO	525.2	Y	MRL	0.032 UG/L		01-01-2014	12-31-2016
2065	HEPTACHLOR	525.2	Y	MRL	0.019 UG/L		01-01-2014	12-31-2016
2067	HEPTACHLOR EPOXIDE	525.2	Y	MRL	0.026 UG/L		01-01-2014	12-31-2016
2105	2,4-D	515.4	Y	MRL	0.21 UG/L		01-01-2014	12-31-2016
2110	2,4,5-TP	515.4	Y	MRL	0.13 UG/L		01-01-2014	12-31-2016
2274	HEXACHLOROBENZENE	525.2	Y	MRL	0.014 UG/L		01-01-2014	12-31-2016
2306	BENZO(A)PYRENE	525.2	Y	MRL	0.037 UG/L		01-01-2014	12-31-2016
2326	PENTACHLOROPHENOL	515.4	Y	MRL	0.065 UG/L		01-01-2014	12-31-2016
2383	TOTAL POLYCHLORINATED BIPHENYLS (PCB)	508.1	Y	MRL	0.004 UG/L		01-01-2014	12-31-2016
2931	1,2-DIBROMO-3-CHLOROPROPANE	504.1	Y	MRL	0.02 UG/L		01-01-2014	12-31-2016
2946	ETHYLENE DIBROMIDE	504.1	Y	MRL	0.005 UG/L		01-01-2014	12-31-2016
2959	CHLORDANE	508.1	Y	MRL	0.009 UG/L		01-01-2014	12-31-2016

Non-Coliform Sample Results

Water System No. :	NM3560217	**Federal Type :**	NTNC
Water System Name :	WESTERN REFINING SW, GALLUP REFINERY	**Principal Cnty Served :**	MCKINLEY
Lab Sample No. :	2016025138	**Collection Date :**	08-24-2016

Analyte Code	Analyte Name	Method Code	Less than Indicator	Level Type	Reporting Level	Concentration level	Monitoring Period Begin Date	Monitoring Period End Date
2378	1,2,4-TRICHLOROBENZENE	524.2	Y	MRL	0.2 UG/L		01-01-2011	12-31-2016
2380	CIS-1,2-DICHLOROETHYLENE	524.2	Y	MRL	0.1 UG/L		01-01-2011	12-31-2016
2955	XYLENES, TOTAL	524.2	Y	MRL	0.5 UG/L		01-01-2011	12-31-2016
2964	DICHLOROMETHANE	524.2	Y	MRL	0.5 UG/L		01-01-2011	12-31-2016
2968	O-DICHLOROBENZENE	524.2	Y	MRL	0.2 UG/L		01-01-2011	12-31-2016
2969	P-DICHLOROBENZENE	524.2	Y	MRL	0.2 UG/L		01-01-2011	12-31-2016
2976	VINYL CHLORIDE	524.2	Y	MRL	0.3 UG/L		01-01-2011	12-31-2016
2977	1,1-DICHLOROETHYLENE	524.2	Y	MRL	0.1 UG/L		01-01-2011	12-31-2016
2979	TRANS-1,2-DICHLOROETHYLENE	524.2	Y	MRL	0.1 UG/L		01-01-2011	12-31-2016
2980	1,2-DICHLOROETHANE	524.2	Y	MRL	0.2 UG/L		01-01-2011	12-31-2016
2981	1,1,1-TRICHLOROETHANE	524.2	Y	MRL	0.1 UG/L		01-01-2011	12-31-2016
2982	CARBON TETRACHLORIDE	524.2	Y	MRL	0.4 UG/L		01-01-2011	12-31-2016
2983	1,2-DICHLOROPROPANE	524.2	Y	MRL	0.1 UG/L		01-01-2011	12-31-2016
2984	TRICHLOROETHYLENE	524.2	Y	MRL	0.1 UG/L		01-01-2011	12-31-2016
2985	1,1,2-TRICHLOROETHANE	524.2	Y	MRL	0.1 UG/L		01-01-2011	12-31-2016
2987	TETRACHLOROETHYLENE	524.2	Y	MRL	0.1 UG/L		01-01-2011	12-31-2016
2989	CHLOROBENZENE	524.2	Y	MRL	0.2 UG/L		01-01-2011	12-31-2016
2990	BENZENE	524.2	Y	MRL	0.1 UG/L		01-01-2011	12-31-2016
2991	TOLUENE	524.2	Y	MRL	0.5 UG/L		01-01-2011	12-31-2016
2992	ETHYLBENZENE	524.2	Y	MRL	0.5 UG/L		01-01-2011	12-31-2016
2996	STYRENE	524.2	Y	MRL	0.5 UG/L		01-01-2011	12-31-2016

Non-Coliform Sample Results

Water System No. :	NM3560217	**Federal Type :**	NTNC
Water System Name :	WESTERN REFINING SW, GALLUP REFINERY	**Principal Cnty Served :**	MCKINLEY
Lab Sample No. :	2016025140	**Collection Date :**	08-24-2016

Analyte Code	Analyte Name	Method Code	Less than Indicator	Level Type	Reporting Level	Concentration level	Monitoring Period Begin Date	Monitoring Period End Date
1005	ARSENIC	200.8	N	MRL	0.001 MG/L	0.003 MG/L	01-01-2014	12-31-2016
1010	BARIUM	200.8	Y	MRL	0.1 MG/L		01-01-2014	12-31-2016
1015	CADMIUM	200.8	Y	MRL	0.001 MG/L		01-01-2014	12-31-2016
1020	CHROMIUM	200.8	Y	MRL	0.001 MG/L		01-01-2014	12-31-2016
1035	MERCURY	245.1	Y	MRL	0.0002 MG/L		01-01-2014	12-31-2016
1036	NICKEL	200.8	Y	MRL	0.01 MG/L		01-01-2014	12-31-2016
1045	SELENIUM	200.8	Y	MRL	0.005 MG/L		01-01-2014	12-31-2016
1052	SODIUM	200.7	N	MRL	1 MG/L	68.00 MG/L		
1074	ANTIMONY, TOTAL	200.8	Y	MRL	0.001 MG/L		01-01-2014	12-31-2016
1075	BERYLLIUM, TOTAL	200.8	Y	MRL	0.001 MG/L		01-01-2014	12-31-2016
1085	THALLIUM, TOTAL	200.8	Y	MRL	0.001 MG/L		01-01-2014	12-31-2016

Non-Coliform Sample Results

Water System No. :	NM3560217	**Federal Type :**	NTNC
Water System Name :	WESTERN REFINING SW, GALLUP REFINERY	**Principal Cnty Served :**	MCKINLEY
Lab Sample No. :	2016025142	**Collection Date :**	08-24-2016

Analyte Code	Analyte Name	Method Code	Less than Indicator	Level Type	Reporting Level	Concentration level	Monitoring Period Begin Date	Monitoring Period End Date
1024	CYANIDE	10-204-00-1X	Y	MRL	0.005 MG/L		01-01-2014	12-31-2016

Non-Coliform Sample Results

Water System No. :	NM3560217	**Federal Type :**	NTNC
Water System Name :	WESTERN REFINING SW, GALLUP REFINERY	**Principal Cnty Served :**	MCKINLEY
Lab Sample No. :	2016025144	**Collection Date :**	08-24-2016

Analyte Code	Analyte Name	Method Code	Less than Indicator	Level Type	Reporting Level	Concentration level	Monitoring Period Begin Date	Monitoring Period End Date
1025	FLUORIDE	4500F-C	N	MRL	0.1 MG/L	0.26 MG/L	01-01-2014	12-31-2016

Non-Coliform Sample Results

Water System No. :	NM3560217	**Federal Type :**	NTNC
Water System Name :	WESTERN REFINING SW, GALLUP REFINERY	**Principal Cnty Served :**	MCKINLEY
Lab Sample No. :	2016025145	**Collection Date :**	08-24-2016

Analyte Code	Analyte Name	Method Code	Less than Indicator	Level Type	Reporting Level	Concentration level	Monitoring Period Begin Date	Monitoring Period End Date
1038	NITRATE-NITRITE	353.2	Y	MRL	0.1 MG/L		01-01-2016	12-31-2016

New Mexico Environment Department	UOCP Operator Lookup	Drinking Water Program
County Map of NM	Water System Search	Help

Water System Detail Information

Water System No.:	NM3560217	Federal Type:	NTNC
Water System Name:	WESTERN REFINING SW, GALLUP REFINERY	Federal Source:	GW
Principal County Served:	MCKINLEY	System Status:	A
Principal City Served:	GALLUP	Activity Date:	06-01-1977

Water System Sampling Points						
Facility ID	Facility Name	Fac Type Code	Smpl Pt ID Type Code Status	Location	Designations	
					Type	Begin/End Date
60217000	DIST	DS	CSAF - DS - I	COMPLIANCE SAFE		
60217000	DIST	DS	CUNS - DS - I	COMPLIANCE UNSAFE		
60217000	DIST	DS	HAA5-IND - DS - A	LAB ADMIN BLDG SINK		
60217000	DIST	DS	HAA5-INDI - DS - I	CHANGE HOUSE SINK		
60217000	DIST	DS	RDNS - DS - I	REPEAT DOWNSTREAM		
60217000	DIST	DS	ROLOC - DS - I	REPEAT OTHER LOC		
60217000	DIST	DS	RORIG - DS - I	REPEAT ORIGINAL LOC		
60217000	DIST	DS	RP001D - DS - A	Nurses Clinic		
60217000	DIST	DS	RP001O - DS - A	Western Housing Area Fire House Trailer		
60217000	DIST	DS	RP001U - DS - A	Fire Station		
60217000	DIST	DS	RP002D - DS - A	Modular #1		
60217000	DIST	DS	RP002O - DS - A	Admin Office Lunchroom Sink		
60217000	DIST	DS	RP002U - DS - A	Forward Operations Building		
60217000	DIST	DS	RP003D - DS - A	Modular #1		
60217000	DIST	DS	RP003O - DS - A	Forward Operations Building Lunchroom		
60217000	DIST	DS	RP003U - DS - A	Forward Operations Building Mop Closet		
60217000	DIST	DS	RP004D - DS - A	New Control Room Womens Bathroom		
60217000	DIST	DS	RP004O - DS - A	Refinery Operations New Control Room LR		
60217000	DIST	DS	RP004U - DS - A	Admin Office Lunchroom Sink		
60217000	DIST	DS	RT001 - DS - A	Western Housing Area Fire House Trailer		
60217000	DIST	DS	RT002 - DS - A	Admin Office Lunchroom Sink		

Water System Sampling Points						
Facility ID	Facility Name	Fac Type Code	Smpl Pt ID Type Code Status	Location	Designations	
					Type	Begin/End Date
60217000	DIST	DS	RT003 - DS - A	Forward Operations Building Lunchroom		
60217000	DIST	DS	RT004 - DS - A	Refinery Operations New Control Room LR		
60217000	DIST	DS	RUPS - DS - I	REPEAT UPSTREAM		
60217000	DIST	DS	SP602170001 - DS - A	DISTRIBUTION SYSTEM		
60217000	DIST	DS	TTHM-IND - DS - A	MAIN OFFICE JANITOR SINK		
60217003	WELL #3	WL	SP602170031 - SR - A	WELL # 3		
60217004	ENTRY POINT #1	SS	SP602170041 - EP - A	ENTRY POINT #1		

Attachment A. Revised Groundwater Monitoring Report

Revised: Annual Groundwater Monitoring Report Gallup Refinery – 2016

Western Refining
Gallup, New Mexico
September 2018

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____ Date _____
Robert S. Hanks
Refinery General Manager

Reviewed by:

_____ Date _____
John Moore
Environmental Supervisor

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LIST OF ACRONYMS

AC	Alternating Current
AL	Aeration Lagoon
API	American Petroleum Institute
BMP	Best Management Practices
BOD	Biochemical Oxygen Demand
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
BW	Boundary Well
COC	Chain of Custody
COD	Chemical Oxygen Demand
DC	Direct Current
DGF	Dissolved Gas Flotation
DO	Dissolved Oxygen
DRO	Diesel Range Organics
DTB	Depth to Bottom
DTP	Depth to Product
DTW	Depth to Water
EP	Evaporation Pond
EPA	Environmental Protection Agency
FT	Foot/Feet
FWGWMP	Facility Wide Groundwater Monitoring Plan
GPM	Gallons per Minute
GRO	Gasoline Range Organics
GWM	Groundwater Monitoring Well
HP	Horse Power
HWB	Hazardous Waste Bureau
IDW	Investigation Derived Waste
ISE	Ion Selective Electrode
LDU	Leak Detection Unit
LPG	Liquefied Petroleum Gas
LTU	Land Treatment Unit
MCL	Maximum Contaminant Level
MPPE	Macro Porous Polymer Extraction
MRO	Motor Oil Range Organics
MTBE	Methyl Tert Butyl Ether
mg/L	Milligrams/liter

LIST OF ACRONYMS - continued

MV	Millivolts
MW	Monitoring Well
NAIC	North American Industry Classification System
NAPIS	New American Petroleum Institute Separator
NAPL	Non Aqueous Petroleum Liquid
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NOD	Notice of Disapproval
NPDES	National Pollutant Discharge Elimination System
OBSM	Oil Bearing Secondary Material
OCD	Oil Conservation Division
OW	Observation Well
ORP	Oxidation Reduction Potential
PAH	Polycyclic Aromatic Hydrocarbon
PSTB	Petroleum Storage Tank Bureau
PVC	Polyvinyl Chloride
PW	Process Well
RCRA	Resource Conservation and Recovery Act
<RL	Less than the Applicable standards Detection Limit
RSL	Regional Screening Level
RW	Recovery Well
SMW	Shallow Monitoring Well
SPH	Separate Phase Hydrocarbon
STP	Sanitary Treatment Pond
SVOC	Semi-volatile Organic Compound
SMWU	Solid Waste Management Unit
SWPPP	Storm Water Pollution and Prevention Plan
TDS	Total Dissolved Solids
TPH	Total Petroleum Hydrocarbon
µm	Micrometer
UPS	United Parcel Service
VOC	Volatile Organic Compounds
WQCC	Water Quality Control Commission
WWTP	Waste Water Treatment Plant
YTD	Year to Date

EXECUTIVE SUMMARY

The Annual Groundwater Monitoring Report for 2016 (Report) incorporates all of the field monitoring, sampling, and inspection of active wells located on the facility. Analytical data and field notes are incorporated into this report to show any changes or discoveries of various constituents found in the groundwater collected for sampling. On February 15, 2012, Groundwater Discharge Permit GW-032 was rescinded by the Oil Conservation Division (OCD) of New Mexico. We are: however, required to continue to abate pollution of groundwater pursuant to 19.15.30 NMAC (Remediation) under case number AP-111 with remediation activities already in place under Groundwater Discharge Permit GW-032. Monitoring and field work activities conducted for 2016 followed the guidelines of the "Approval with Modifications, Annual Facility-Wide Ground Water Monitoring Report: Gallup Refinery 2013, HWB-WRG-14-006", dated May 18, 2016 from New Mexico Environmental Department Hazard Waste Bureau (NMED HWB).

GROUNDWATER MONITORING

There are 87 monitoring wells located throughout the refinery property that are subject to the ground water monitoring program. The groundwater program consists of a number of sampling locations, target analyses, and monitoring frequencies which are monitored on a quarterly, semi-annual, and annual basis. A brief analytical summary is included while a more detailed summary is discussed in Section 7. In addition to the monitoring wells, there are three leak detection units (LDUs) at the new API Separator (NAPIS). These monitoring wells and LDUs have been grouped as follows:

GROUP A	GROUP B	GROUP C	GROUP D	GROUP E
BW-1A, 1B, 1C	GWM-1, 2, 3	OW-13, 14, 29, 30	PW-2, 3, 4	MKTF-1 thru
BW-2A, 2B, 2C	NAPIS-1, 2, 3, KA-3	OW-50, 52	OW-1, 10	MKTF-45
BW-3A, 3B, 3C	OAPIS-1	RW-1, 2, 5, 6	OW-11, 12	
MW-1, 2, 4, 5	East LDU, West LDU, Oil Sump LDU			
SMW-2, 4	STP1-NW, STP1-SW			

GROUP A - WELLS

There are a total of nine boundary wells located on the northwest section of the refinery property. Three (BW-1A, 1B, 1C) are located between evaporation ponds 7 and 8, and three (BW-2A, 2B, 2C) are located on the west end of evaporation pond 11. BW-3A, 3B, 3C are located on a flat terrain directly northwest of Evaporation pond 12A. Three of the nine wells (BW-1A, BW-1B, and BW-3A) continue to indicate no water level since original installation in 2003 and 2004.

- No benzene, toluene, ethylbenzene, or total xylenes (BTEX) or methyl tert butyl ether (MTBE) constituents have been detected in any of the boundary wells to date.
- Bis(2-ethylhexyl)phthalate was first detected in BW-3B in 2009, BW-3C in 2011, and in BW-1C in 2013. The detection of this organic compound is suspected to be a laboratory contaminant or possibly from the polyvinyl chloride (PVC) pipe materials used in the well. Subsequent annual sample results have indicated non-detectable levels of the organic constituent in each of these wells.

Within this area of the refinery, three Resource Conservation Recovery Act (RCRA) land treatment units (LTU) exist. Each of the three LTU cells measure 480 feet x 240 feet and received hazardous waste application until 1990. Non-hazardous waste application ceased in 1993. Each section is diked and encompasses a surface area of 2.6 acres.

The MW series (MW-1, 2, 4, and 5) and SMW series (SMW-2, 4) of wells were installed to monitor the detection of hazardous constituents from the LTU in groundwater. On the northern edge (downgradient) of the LTU are three monitoring wells (MW-1, SMW-4 and MW-2) and along the eastern edge of the LTU are two monitoring wells (MW-5 and SMW-2). MW-4 is located on the northwest corner of evaporation pond 2 (EP-2) and was installed as a background monitoring well. A summary of the laboratory analyses for these wells through 2016 includes:

- Detection of MTBE in low concentrations in SMW-2 from 2008 through 2016.
- Manganese has been detected at concentration levels above the WQCC standard since 2012 in SMW-2.

In addition to the annual sampling requirements, the LTU monitoring wells are on a once every ten year sample schedule per the RCRA Post-Closure Care Permit. The next RCRA Post-Closure Care Permit sample event is scheduled to occur in 2019.

GROUP B - WELLS

The Group B wells are located near the aeration basin. Wells GWM-1, GWM-2 and GWM-3 are located on the west edge of Aeration Lagoon 2 (AL-2) and Pond 1. The NAPIS-2, NAPIS-3, and KA-3 wells are adjacent to the west bay of the New American Petroleum Institute Separator (NAPIS) and NAPIS-1 is located upgradient on the southeast side of the east bay of the NAPIS. There are three leak detection units (LDU) located on the east and west bay of the NAPIS, identified as follows:

- West LDU is located on the west bay of the NAPIS unit;
- The Oil Sump LDU is located on the northeast section of the east bay of the NAPIS unit; and
- East LDU is located on the southeast section of the east bay of the NAPIS unit.

In July 2012, a well (OAPIS-1) was installed on the northwest side of the Old API Separator. The installation of this well resulted from the Solid Waste Management Units (SMWU) No. 1, Aeration Basin and SMWU No. 14, Old API Separator site investigation. The investigation work was implemented to determine if there had been a release from the aeration basin or Old API Separator and to delineate impacts associated with any such releases. Information collected from this site investigation is also used to track groundwater in monitoring wells GWM-2 and GWM-3.

Two monitoring wells (STP1-NW and STP1-SW) were installed at the new sanitary treatment pond in May of 2014. STP1-NW is located on the west end of the north bay of STP-1, and STP1-SW is located on the southwest corner of the south bay of STP-1. Both of these wells were added to the ground water sampling plan, however, STP1-SW has remained dry since it was installed.

A brief summary of laboratory analyses for the Group B wells for 2016 is listed below:

GWM 1, GWM-2, GWM-3

- No groundwater was present in GWM-2 and GWM-3 in 2016.
- No samples have been collected from GWM-1 since the third quarter 2015 due to the detection of an SPH level.

NAPIS-1, NAPIS-2, NAPIS-3, and KA-3

- Elevated concentrations of MTBE continue to be detected in NAPIS-2 throughout most of 2016. MTBE was also detected above the screening level in first quarter 2016 in NAPIS-3 and benzene was detected slightly above the screening level in KA-3 in the third quarter of 2016.

- DRO/GRO have been detected in NAPIS-2 in 2016 and DRO in NAPIS-3 in the fourth quarter 2016 and GRO in KA-3 in all four quarters of 2016.
- Barium, iron and manganese were detected in NAPIS-2 at concentration levels exceeding the applicable standards in 2016.
- Iron was detected in all four quarters of 2016 in NAPIS-3 at concentration levels exceeding the WQCC standards. Iron was detected in KA-3 in the fourth quarter of 2016 at concentration level exceeding the WQCC standard.
- Manganese was detected in all four quarters of 2016 above the applicable standard in KA-3 NAPIS-2 and NAPIS-3.
- Naphthalene and 1-methylnaphthalene were detected exceeding the applicable standards for NAPIS-2 in the third quarter of 2016.

East LDU, West LDU and Oil Sump LDU

- No water has been detected in the Oil Sump LDU since June 2013.
- Benzene and xylenes were detected in the East and West LDUs at levels exceeding applicable standards in 2016.
- In 2016, chromium, iron, and manganese have been detected in concentrations exceeding applicable standards in both the East and West LDUs.
- The organic constituents 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene have shown concentrations exceeding applicable standards in both the East and West LDUs in 2016.

OAPIS-1

- Benzene and MTBE have exceeded the applicable standards since 2013.
- Concentrations of fluoride and chloride, DRO and GRO have shown exceedances in OAPIS-1 since 2013.
- Arsenic, iron, and manganese have exceeded applicable standards in OAPIS-1 since 2013. Cyanide exceeded the screening level in the fourth quarter of 2016.
- Detections of 1,2-Dichloroethane (EDC), 1-methylnaphthalene and bis(2-ethylhexyl) phthalate have been detected in concentrations exceeding applicable standards in 2016.

STP1-NW and STP1-SW

- No water has been detected in STP1-SW since its installation in 2014.
- There were no detections of BTEX, MTBE, DRO, GRO, or MRO above applicable standards in 2016 in STP-1 NW.
- Chloride exceeded applicable standards in 2016 and iron was detected in the first and second quarter of 2016 at concentration levels which exceeded applicable standards.

GROUP C WELLS

Group C wells include six observation wells and four recovery wells. Observation well OW-14 is adjacent to the liquefied petroleum gas (LPG) compound while OW-13, OW-29, and OW-30 are located north of the tank farm. Observation wells OW-50 and OW-52 were installed in 2009 per NMED and monitors the potential for contaminant migration offsite. Recovery well RW-1 is located within the tank farm east of Tank 568 while RW-2 is located on the southwest side of Tank 576. Recovery well RW-5 and RW-6 are located northeast of Tank 345. The recovery wells were installed during a subsurface investigation conducted between 1987 and 1992 near the tank farm. BTEX concentrations and separate-phase hydrocarbons (SPH) were detected in the ground water and SPH recovery continues quarterly. When applicable, recovery is completed using a disposable hand-bailer in RW-5 and RW-6 and completed in RW-1 using a portable submersible pump. Measureable SPH has not been detected in RW-2. SPH was not detected in RW-5 and RW-6 during all of 2016. The SPH column thickness in RW-1 has increased during 2016.

A summary of the observation wells and recovery well laboratory analyses through 2016 is as follows:

OW-13, OW-14, OW-29, OW-30, OW-50, and OW-52

- Benzene has exceeded the EPA MCL standard in OW-14 since 2008 through 2016. MTBE concentrations have shown exceedances in OW-14, OW-29, and OW-30 since 2007 (2010 for OW-29) through 2016. No BTEX or MTBE constituents have been detected in OW-13, OW-50, and OW-52 above screening levels.
- Chloride has been detected above applicable standard in OW-14 from 2013 through 2016.
- DRO and GRO have been detected in OW-14, OW-29 and OW-30 in 2016.

RW-1, RW-2, RW-5, and RW-6

- BTEX concentrations have exceeded standards in RW-1 and RW-2 since 2011. RW-5 and RW-6 have exceeded standards for benzene from 2011 to present. Total xylenes concentrations exceeded the standard for RW-6 from 2012 through 2016.
- During 2016, the organic constituents 1,2,4-trimethylbenzene exceeded the applicable standards in RW-2. In RW-5 and RW-6, the organic constituents 1,2,4-trimethylbenzene, naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene concentrations exceeded the applicable standards in 2016.

Hydrocarbon recovery from RW-1 has shown a steady decrease from 2005 through 2016. It is common for hydrocarbon recovery to decline over time, as the readily recoverable hydrocarbons is removed from the

formation. From a review of the hydrocarbon recovery log for RW-1 in Appendix A, it appears the recovery pump was initially (Feb 2005) operated in a continuous mode while recovery rates were higher. In March 2005, the recovery of SPH was reported at 48 to 74 gallons per week. By July and August, the reported recovery had declined to 18 to 28 gallons for an approximate three week recovery period. In December 2005, the recovery for two weeks had declined to five gallons of SPH. With the declining recovery volumes of SPH, the recovery method was changed to hand bailing in 2007. The recovery method reverted to using a bladder pump in 2008; however, due to the low recovery volumes the recovery was conducted in conjunction with purging the well for sampling and the pump was not operated on a continuous basis.

An increase in measured product thickness was recorded starting in 2013. The level measured in October 2012 was 0.09 feet and showed a sustained increase over time to 4.93 feet in November of 2014. A similar increase in SPH thickness occurred in late 2007 through 2009, with the product thickness decreasing to less than 0.6 feet through late 2012. In 2014, total hydrocarbon recovery is estimated at 8.5 gallons in 53 gallons of water purged compared to the 2005 estimate of 431 gallons of hydrocarbons in 1,210 gallons of water. A drop-in 3" diameter x 24" long bladder pump with suction at the top of the pump was used to purge water/hydrocarbons from this well until pump lost suction. The recovery well was never completely purged dry due to suction of the submersible pump being at the top, which left approximately 24" of product/water level remaining in RW-1. The recovered water/hydrocarbon mixture was pumped into a 55 gallon drum and the visible hydrocarbon layer thickness was measured and estimated as to volume of hydrocarbons recovered in gallons (not an accurate assessment) No measureable hydrocarbons have been detected in RW-2 since its been installed. SPH has not been detected in RW-5 and RW-6 since February 2009 and November 2011, respectively.

GROUP D WELLS

The Group D wells can be found within the refinery property and include three process/production wells (PW-2, PW-3 and PW-4) and four observation wells (OW-1, OW-10, OW-11, and OW-12). The process/production wells are used to provide process water for the refinery and drinking water for both the refinery and the Travel Center. PW-2 is located on the central west side of the refinery directly west of Evaporation Pond 6 (EP-6). PW-3 is centrally located on the refinery property north of the maintenance

shop and west of the domestic water tank Z-86-T2 and PW-4 is located south of the Pilot Lift Station. Each of the PW wells is screened at a depth of 1,000 feet. The observation well OW-1 is found west of PW-2 and is a flowing artesian well. Observation well OW-10 is located east of Evaporation Pond 9 (EP-9), OW-11 is located on the west side of the main access road, and OW-12 is centrally located west of the refinery tank farm.

A summary of the Group D Wells laboratory analyses through 2016 are as follows:

PW-2, PW-3, and PW-4

- No BTEX or MTBE constituents were detected in the process wells in 2016.
- Low concentrations of fluoride, chloride and sulfate were detected in PW-3.
- Low concentrations of arsenic, barium and iron were detected in PW-3 and PW-4 in 2016 at concentration levels below applicable standards.
- Two organic constituents were detected at levels below applicable standards in PW-3 and PW-4 in 2016 (bis(2-ethylhexyl) phthalate and di-n-octylphthalate). Low concentrations of 1,2,4 trimethylbenzene, 1,3,5 trimethylbenzene, naphthalene, 1-methyl naphthalene, 2-methylnaphthalene, benzoic acid, diethyl phthalate and dimethyl phthalate were also detected in PW-4 in the first half of 2016.

OW-1, OW-10, OW-11, and OW-12

- Low concentrations of benzene and ethylbenzene were detected in OW-1 during the last quarter of 2016, and low concentrations of MTBE were detected in OW-1 and OW-10 during all four quarters in 2016.
- Iron concentrations exceeded the WQCC standard in OW-1 during the third quarter of 2016.
- Chloride concentrations exceeded the WQCC standard in OW-10 in 2016.

GROUP E WELLS

To date, a total of 44 monitoring wells (MKTF-1 through MKTF-44) have been installed to aid in delineating the extent of a hydrocarbon seep discovered in 2013 in an isolated area approximately 100 yards west of the crude tanks T-101 and T-102. A pre-existing well located in the seep investigation site area located on the west end of the loading rack was added to the marketing wells and has been labeled as MKTF-45. Site investigations have included excavations within the seep area, soil/water samples, and the installation of six temporary sumps to recover the non-aqueous phase liquid (NAPL). Liquid recovery from the six sumps in 2016 is estimated at 366,287 gallons of NAPL and ground water. A hole was identified in the refinery's waste water process sewer line near the bundle cleaning pad and an underground leaking transmix transfer

line was also identified in the vicinity. Interim measures are on-going to identify any other potential sources of the hydrocarbon seep. An estimated 11.2 gallons of hydrocarbons was recovered from eleven of the MKTF wells in 2015. Hydrocarbon recovery from six temporary sumps is on-going. The measured SPH thickness is shown on Figure 13.

The MKTF wells are sampled quarterly. BTEX, MTBE, DRO, GRO, total and dissolved metals and several VOCs and SVOCs have been detected in many of the wells above the referenced standards. See Tables 8.15 thru 8.15.5 (Appendix G) for a complete list of constituents analyzed.

ADDITIONAL SITES MONITORED

The new waste water treatment plant (WWTP) and the new holding pond Sanitary Treatment Pond (STP-1) were completed and put in service in May of 2012. All waste water flow was routed to the WWTP in May 2012 and in January 2013, the demolition and removal of the benzene strippers was completed. Pilot effluent was routed to the WWTP in June of 2013 and the aeration lagoons and pond 1 were taken out of service and no longer received any flow. All influent and effluent sampling continued between lagoons and pond 1 as long as there was continued gravitational flow.

Outfall BW to EP-2

- Reverse Osmosis (RO) water from the boiler unit was re-routed back into the process and no longer discharges to evaporation pond 2.
- First quarter 2016 samples indicate sulfate was the only constituent that exceeded applicable WQCC standards.

Outfall STP1 to EP-2

- The EP-2 Inlet designation was changed to STP1 to EP-2 in the second half of 2012 as flow to the aeration lagoons and pond 1 were diverted to the new WWTP. Aeration lagoons and pond 1 were taken out of service and no longer receiving flow. STP-1 effluent now flows into the northeast corner of EP-2. The outfall is sampled on a quarterly basis.
- DRO concentrations were detected in 2016 and TDS concentrations have exceeded the WQCC applicable standard since 2010.
- Three volatile organic compounds were detected at below applicable standards in 2016.

ADDITIONAL APPLICABLE STANDARDS REQUIREMENTS

The Discharge Permit was rescinded by NM-OCD on February 15, 2012; however Gallup is still required to continue with abatement of pollution of groundwater pursuant to 19.15.30 NMAC (Remediation), under Abatement Plan AP-111, with remediation activities already in place.

SECTION 1

INTRODUCTION

The 2016 Annual Groundwater Monitoring Report has been prepared to describe monitoring and remediation activities undertaken throughout 2016. Groundwater sampling is performed on a quarterly, semi-annual and annual basis and includes sampling of the evaporation ponds located on the northwest section of the refinery property. The activities completed include analysis of all active monitoring wells and evaporation ponds. The data generated is used to characterize the nature and extent of impacts to the groundwater at the refinery from historical releases and to monitor any levels of constituents that exceed applicable standards.

This report presents the results of the groundwater monitoring activities and contains the following information:

- Scope of activities
- Sampling methods and procedures
- Groundwater elevation surveys
- Regulatory criteria
- Groundwater monitoring results
- Conclusions and recommendations

1.1 FACILITY OWNERSHIP, OPERATION AND LOCATION

This report pertains to the Western Refining Southwest Inc., Gallup Refinery, located at Exit 39 on Interstate I-40, approximately 17 miles east of Gallup, New Mexico, in Jamestown, New Mexico. Figure 1 shows the regional location of the refinery.

Owner: Western Refining (Parent Corporation)
123 West Mills Avenue, El Paso, TX 79901

Operator: Western Refining Southwest, Inc. (Postal address)
Gallup Refinery
92 Giant Crossing Road, Gallup, NM 87301

Western Refining Southwest, Inc. (Physical address)
Gallup Refinery
I-40, Exit 39, Jamestown, New Mexico 87347

The following regulatory identification and permit governs the Gallup Refinery:

- SIC code 2911 (Petroleum Refining) applies to the Gallup Refinery
- U.S. EPA ID Number NMD000333211 RCRA Post-Closure Care Permit
- OCD Abatement Plan, number AP-111
- 2015 NPDES MSGP, ID #NMR053168

The refinery status is corrective action/compliance. Annual, semi-annual, and quarterly groundwater sampling is conducted at the refinery to evaluate present conditions. The refinery is situated on an 810 acre irregular shaped tract of land that is substantially located within the lower one-quarter of Section 28 and throughout Section 33 of Township 15 North, Range 15 west, of the New Mexico Prime Meridian. A small component of the property lies within the northeastern one-quarter of Section 4 of Township 14 North, Range 15 West. Figure 2 is a topographic map showing the general layout of the refinery in comparison to the local topography.

1.2 2 BACKGROUND INFORMATION

The refinery primarily receives crude oil via two 6-inch diameter pipelines; two pipelines from the Four Corners Area enter the refinery property from the north. In addition, the refinery also receives natural gasoline feed stocks via a 4-inch diameter pipeline that comes in from the west along the Interstate 40 corridor from the Wingate Plant, formerly Conoco gas plant. Crude oil and other products also arrive at the site via railroad cars. These feed stocks are then stored in tanks until refined into products.

The refinery incorporates various processing units that refine crude oil and natural gasoline into finished products. These units are briefly described as follows:

- Crude Distillation Unit: separates crude oil into various fractions; including gas, naphtha, light oil, heavy oil, and residuum
- Fluidized Catalytic Cracking Unit (FCCU): dissociates long-chain hydrocarbon molecules into smaller molecules, and essentially converts heavier oils into naphtha and lighter oils.
- Alkylation Unit: combines specific types of hydrocarbon molecules into a high octane gasoline blending component.
- Reforming Unit: breaks up and reforms low octane naphtha molecules to form high octane naphtha.
- Hydro Treating Unit: removes undesirable sulfur and nitrogen compounds from intermediate feed stocks, and also saturates the feed stocks with hydrogen to make diesel fuel.
- Additional Treater Units: remove impurities from various intermediate and blending feed stocks to produce finished products that comply with sales specifications.
- A set of Acid Gas Treating and Sulfur Recovery Units: convert and recover various sulfur compounds from other processing units in order to produce either ammonium thiosulfate or a solid elemental sulfur byproduct.
- Waste Water Treatment Plant – process and treat refinery waste and storm water before releasing to treatment ponds.

As a result of these processing steps, the refinery produces a wide range of petroleum products including propane, butane, unleaded gasoline, diesel, kerosene, and residual fuel. In addition to the aforementioned processing units, various other equipment and systems support the operation of the refinery and are briefly described as follows:

- Storage tanks are used throughout the refinery to hold and store crude oil, natural gasoline, intermediate feed stocks, finished products, chemicals, and water. These tanks are all located aboveground and the capacity ranges from 80,000 barrels to less than 1,000 barrels.
- Pumps, valves, and piping systems are used throughout the refinery to transfer various liquids among storage tanks and processing units.
- A railroad spur track and a railcar loading rack are used to transfer feed stocks and products from refinery storage tanks into and out of railcars.
- Several tank truck loading areas are used at the refinery to load out finished products and also may receive crude oil, other feed stocks, additives, and chemicals.

Gasoline and diesel are delivered to the Travel Center via tanker truck. An underground diesel pipeline exists between the refinery and the Travel Center. As a result of an off-refinery release in 2011, the pipeline was purged of product, filled with nitrogen and temporarily taken out of service. Western worked with the

NMED – PSTB (Petroleum Storage Tank Bureau) and the NM OCD (Oil Conservation Division) to place this line back in service. In 2013 the underground diesel line from the Gallup Refinery to the Travel Center was replaced. The replaced line runs above ground from the marketing area of the refinery for approximately 150 feet and continues underground to the Travel Center. The diesel line was re-commissioned and put back in service on February 3, 2014.

A designated area is used to conduct employee firefighting training. During these training activities waste water and/or wash water drains directly into a dedicated tank that is located in the vicinity. The waste water is removed via vacuum truck and drained into a process sewer leading to the NAPIS after each training exercise. Oily water and sludge is transferred via vacuum truck to the NAPIS for processing and oil-water separation. The process waste water system is a network of curbing, paving, catch basins, and underground piping that collects waste water effluent and stormwater runoff from various processing areas within the refinery. The waste water effluent flows into T-27, T-28 and into T-35 (which works in parallel to T-27 and T-28) and into the NAPIS which provides the first stage oil-water separation where the removal of free oil is separated from waste water by gravity. The clarified water is routed to the waste water treatment plant (WWTP) Dissolved Gas Flotation (DGF) system which provides the second stage oil-water separation process. The DGF process involves the pressurization of waste water in the presence of air or nitrogen, creating a super-saturated solution called coagules that are carried to the surface. The float is removed to disposal by mechanical float scrapers and the effluent is recycled back to the flotation chamber. The skimmed float is sent to the DGF float management system, “float tanks”. Oily solids collected in the float tanks are recycled through the refining process (on-site) or handled as a K048 listed hazardous waste for proper disposal.

The clarified effluent from the DGF system was designed with the Macro Porous Polymer Extraction (MPPE) system however, the MPPE unit did not perform as expected from a flow rate standpoint. It removed benzene efficiently, but became plugged so that flow rates decreased below adequate levels. In December 2014, the MPPE was removed from service and replaced with the carbon canister system. The two systems ran in parallel for three months in the second half of 2014 followed by trial with carbon canisters for two months before the MPPE was removed from service. Flow rates up to 500 GPM can now be achieved through the carbon system. The waste water that passes through the carbon canisters

discharges into the sanitary treatment pond (STP-1). STP-1 has two bays, north and south and each bay is equipped with five aerators. The treated waste water is mixed with air in order to oxidize any remaining organic constituents and increase the dissolved oxygen concentration available in the water for growth of bacteria and other microbial organisms. The microbes degrade most of the hydrocarbons into carbon dioxide and water. Five 15-hp mechanical aerators provide aeration in each bay (North and South) in STP-1. Effluent from STP-1 then flows into evaporation pond 2 (EP-2) and is gravitated to the rest of the ponds. The initial startup of the new WWTP was in May of 2012 which resulted in the decommissioning of Benzene Strippers 1, 2, and 3, and the Aeration Lagoons 1 and 2 (AL-1 and AL-2). In November of 2012, the benzene strippers were taken off-line permanently and completely demolished in January of 2013. At the evaporation ponds, waste water is converted into vapor via solar and mechanical wind-effect evaporation. There are a total of four evaporators located at the ponds. Two 80 GPM, electrically driven water evaporators are located between evaporation ponds 4 and 5 and two additional 66 GPM sprayers were installed between ponds 3 and 4 in October 2014. No waste water is discharged from the refinery to surface waters of the U.S. All treated waste water is routed into several evaporation ponds which have large surface areas that are designed to efficiently evaporate water by sunlight and exposure to the changing ambient temperatures.

The stormwater system is a network of valves, gates, berms, embankments, culverts, trenches, ditches, natural arroyos, and retention ponds that collect, convey, control, treat, and release stormwater that falls within or passes through refinery property. Stormwater that falls within the processing areas is conveyed through the same underground piping system that collects waste water effluent from various processing areas with the refinery. The stormwater effluent from within the process areas follows the same flow pattern and treatment as described in the process waste water flow system (T-27 → T-28 → T-35 → NAPIS → WWTP → STP-1 → EP-2 → Evaporation Ponds).

Stormwater discharge from the refinery is infrequent due to the arid desert-like nature of the surrounding geographical area. Gallup Refinery maintains a Storm Water Pollution Prevention Plan (SWPPP) that includes Best Management Practices (BMPs) for effective storm water pollution prevention and control. The refinery has constructed several berms in various areas and improved outfalls (installed barrier dams

equipped with gate valves) to minimize the possibility of potentially impacted runoff leaving the refinery property.

1.3 SITE CHARACTERISTICS

Built in the 1950's, the refinery is located within a rural and sparsely populated section of McKinley County, Jamestown, New Mexico, and located 17 miles east of Gallup, New Mexico. The setting is a high desert plain on the western slope of the Continental Divide. The surrounding land is comprised primarily of public lands and is used for cattle and sheep grazing at a density of less than six cattle or 30 sheep per section. The nearest population centers are the Flying J Travel Center (formerly Pilot) refueling plaza, the Interstate 40 highway corridor, and a small cluster of residential homes located on the south side of Interstate 40, approximately 2 miles southwest of the refinery (Jamestown). Surface vegetation consists of native xerophytic vegetation including grasses, shrubs, small junipers and some prickly pear cacti. Average rainfall is less than ten inches per year with the maximum average precipitation occurring during the month of August.

Local topography consists of an incline down-slope from high ground in the southeast to a lowland fluvial plain in the northwest. The highest point on refinery property is located at the southeast corner boundary (elevation approximately 7,040 feet) and the lowest point is located at the northwest corner boundary (elevation approximately 6,860 feet). The refinery processing facility is located on a flat man-made terrace at an elevation of approximately 6,950 feet.

Surface water in this region consists of man-made evaporation ponds and aeration basins located within the refinery, a livestock watering pond (Jon Myer's Pond) located one mile east of the refinery, two small unnamed spring fed ponds located south of the refinery, and the South Fork of the Puerco River and its tributary arroyos. The various ponds and basins typically contain water consistently throughout the year. The South Fork of the Puerco River and its tributaries are intermittent and generally only contain water during, and immediately after, the occurrence of precipitation.

The 810 acre refinery property site is located on a layered geologic formation. Surface soils generally consist of fluvial and alluvial deposits; primarily clay and silt with minor inter-bedded sand layers. Below the surface layer is the Chinle Formation, which consists of very low permeability clay stones and siltstones that comprise the shale of this formation. As such, the Chinle Formation effectively serves as an aquitard. Inter-

bedded within the Chinle Formation is the Sonsela Sandstone bed, which represents the uppermost potential aquifer in the region. The Sonsela Sandstone bed lies within and parallels the dip of the Chinle Formation. As such, its high point is located southeast of the refinery and it slopes downward to the northwest as it passes under the refinery. Due to the confinement of the Chinle Formation aquitard, the Sonsela Sandstone bed acts as a water-bearing reservoir and is artesian at its lower extremis. Artesian conditions exist through much of the central and western portions of the refinery property.

Groundwater flow within the Chinle Formation is extremely slow and typically averages less than 10^{-10} centimeters per second (less than 0.01 feet per year). Groundwater flow within the surface soil layer, above the Chinle Formation, is highly variable due to the presence of complex and irregular stratigraphy; including sand stringers, cobble beds, and dense clay layers. As such, hydraulic conductivity may range from 10^{-8} centimeters per second in the clay soil layers located near the surface and up to 10^{-2} centimeters per second in the gravelly sands immediately overlying the Chinle Formation. Figure 4 depicts the regional surface water flows are in a westerly direction and Figure 5 depicts surface water bodies and flow lines.

Shallow groundwater located under refinery property generally flows along the upper contact of the Chinle Formation. Although the prevailing flow direction is from the southeast and toward the northwest; a subsurface ridge has been identified and is thought to deflect some flow in a northeasterly direction in the vicinity of the refinery tank farm.

SECTION 2

SCOPE OF ACTIVITIES 2016

The 2016 quarterly and annual groundwater sampling, and semi-annual evaporation pond sampling was conducted by DiSorbo Consulting Services and Western. The third quarter groundwater sampling was combined with the annual sampling event per approval from NMED and OCD and conducted in August and September 2016. The following is a list of monitoring and inspections completed for 2016:

- Separate Phase Hydrocarbon Recovery Logs – Appendix A
- Field Inspection Logs–Appendix B
- Applicable Standards – Appendix C
- Summary of EPA/NMED/RCRA Activity – Appendix D
- Summary of all leaks, spills and releases – Appendix E
- Temporary Land Farm Semi-Annual Sampling – Appendix F
- Hall Laboratory Analytical Data – Appendix G
- Data Tables – Section 8
- Well Data DTW/DTB Measurements (Elevations) – Section 9
- Quarterly, Semiannual, Annual Inspections Summary – Section 10

2.1 MONITORING AND SAMPLING PROGRAM

The primary objective of groundwater monitoring program is to analyze groundwater samples collected and use data to assess groundwater quality at and near the refinery. Groundwater elevation data was collected to evaluate groundwater flow conditions. The groundwater monitoring program for the refinery consists of sample collection and analysis from a series of monitoring, recovery, boundary, process, and shallow monitoring wells. In addition, surface water samples are collected at the evaporation pond locations.

The groundwater monitoring network is separated into five investigation areas (Group A, Group B, Group C, Group D, and Group E) plus the evaporation ponds and effluent from STP-1 to Pond 2. The sampling frequency, analyses and target analytes vary for each investigation areas. The combined data from these investigation area were used to assess groundwater quality beneath and immediately down-gradient of the refinery, and to evaluate local groundwater flow conditions. Samples were collected annually from all monitoring wells with the exception of recovery and/or monitoring wells that had a measurable separate-phase hydrocarbon (SPH) level. At wells that were purged dry, samples were collected if recharge volume was sufficient for sample collection within a 24-hour period. Wells not sampled due to insufficient recharge were documented in the field logs.

Daily field activities, including observations and field procedures, were recorded for each activity and are maintained at the refinery. Field logs include the following information:

- Sample Location Identification
- Date
- Start and finish sampling time
- Field team members, including visitors
- Weather conditions
- Daily activities and times conducted
- Observations
- Record of samples collected with sample designations
- Photo log (if needed)
- Field monitoring data, including health and safety monitoring (if needed)
- Equipment used and calibration records, if appropriate
- List of additional data sheets and maps completed
- An inventory of the waste generated and the method of storage or disposal
- Signature of personnel completing the field record

All samples collected for analysis are recorded in the field report or data sheets. Chain-of-Custody (COC) forms are completed at the end of each sampling day, prior to the transfer of samples off-site. The signed copy of the COC is placed inside sample containers with the samples and shipped to the laboratory. A custody seal is affixed to the lid of the shipping container. Copies of all COC forms generated are kept at the refinery.

2.2 2 SAMPLING METHODS AND PROCEDURES

Each monitoring well was gauged for depth to water (DTW), total depth, and depth to product (DTP), if applicable, to determine the amount of water to purge. A minimum of two well volumes is purged from each well prior to sampling. If water level is at a minimum or the well has a low recharge rate, the well is allowed to recharge within 24 hours before a sample is collected. For wells that are not supplied with dedicated pumps, a portable pump is lowered slowly into the well to minimize disturbance to a depth of the midpoint of the screened interval of the well. The pump controller is started at a slow rate and gradually increased until water is discharged. Field water quality measurements must stabilize for a minimum of three consecutive readings taken at 2 to 5-minute intervals, within the following limits before purging will be discontinued and sampling may begin: dissolved oxygen (DO) (10%), specific conductance (10%), temperature (10%), pH (10%).

Groundwater samples were obtained from each well within 24 hours of the completion of well purging. The samples were transferred to an appropriate, clean, laboratory-prepared containers provided by the analytical laboratory. Sample collection methods have been documented in the field monitoring reports. Weather conditions, the volume of groundwater purged, description of water, the instruments used, and the water quality readings obtained at each interval were recorded on the field-monitoring log.

Well purging and sampling were performed using disposable polyethylene bailers and/or appropriate portable sampling pumps where applicable. Some of the wells have dedicated pumps installed where a controller is used to power the submersible pump to purge water. In shallow wells, new disposable bailers were used for each well to hand bail purge water and retrieve water samples. All purged groundwater was collected in 55 gallon drum(s) and/or 5 gallon bucket(s) and drained into the refinery waste water treatment system upstream of the NAPIS. Groundwater samples intended for metals analysis were submitted to the laboratory as total and dissolved metals samples.

At a minimum, the following procedure was followed when collecting/shipping samples:

- Protective eye wear (safety glasses, goggles and or face shield)
- Neoprene, nitrile, or other protective gloves are worn when collecting samples. New disposable gloves are used to collect samples at each sample point.

- All samples collected for chemical analysis are transferred into clean sample containers supplied by the analytical laboratory. Sample containers are clearly marked and labeled.

- Groundwater samples obtained for dissolved metals analysis are filtered through a 0.45 µm (micrometer) mesh size disposable filter on site.

- Samples are labeled, sealed, placed in cooler with ice until they are shipped via United Parcel Service (UPS) Red, Federal Express Overnight or personally delivered to the analytical laboratory.

- Standard COC procedures are followed for all samples collected. The COC form and sample request form are shipped inside the sealed storage container to be delivered to the laboratory, signed and dated.

- Field duplicates and trip blanks are obtained for quality assurance during sampling activities. Trip blanks accompany laboratory sample bottles and shipping and storage containers intended for volatile organic compound (VOC) analyses. Trip blanks consist of a sample of analyte free de-ionized water placed in an appropriate sample container. Trip blanks are analyzed at a frequency of one for each shipping event involving twenty or more samples.

In order to prevent cross-contamination, field equipment that came into contact with water or soil was decontaminated before each sampling event. The decontamination procedure for the portable pump consists of rinsing/washing the equipment with a detergent water mixture followed by two rinses before use in another well. Any equipment that came in contact with each well, such as data loggers or tape measure, was decontaminated with a detergent water mixture and rinsed with distilled water before each use. Decontamination of equipment when feasible is done at the bundle pad where decontamination water is drained into the sewer system.

Decontamination water from field work was caught in an appropriate container and drained into the sewer system upstream of the NAPIS.

2.2.1 EQUIPMENT

- A submersible bladder pump 2 inch, 115 volt AC to DC converter, Grundfos Redi-flo2 constructed of stainless steel with check valve and 1/2 in. Teflon tubing, adjustable rate controller powered by a gas generator is used to purge groundwater from monitoring wells. Equipment is located downwind and at least 20 feet from the well so that exhaust fumes do not cross-contaminate the samples.

- Water level instrument used is a WaterMark Oil Water Interface Meter 100 feet, Model 101L/SMOIL. This instrument measures water and hydrocarbon level; indication is a steady audible tone for water and hydrocarbon indication is an erratic audible tone.

- Parameter Instrument – YSI Model 556 MPS Multi Probe System which simultaneously measures DO, conductivity, temperature, and optional pH and ORP (Oxidation Reduction Potential). As a backup, we also have an IQ Scientific Instrument, Model IQ180GLP which measures pH, DO, TDS (Total Dissolved Solids), conductivity, salinity, ISE (Ion Selective Electrode), mV (Millivolts) and temperature.

- Disposable Bailers – Polyethylene bailer 1.5 inches X 36 inches overall length (OAL) with a capacity of approximately 1 liter and 3 inches X 36 inches OAL. Individually sealed packaging, single check valve bailer with slide in angle cut nozzle for sample removal. A new bailer is used for each well that requires hand bailing for purging and sample retrieval.

- Field equipment parameter instruments were calibrated to known standards in accordance with the manufacturers' recommended schedules and procedures. Calibration checks are conducted before a sampling event and the instruments recalibrated as deemed necessary. Calibration of equipment was noted in the daily field logs.

- If field equipment becomes inoperable, a properly calibrated replacement instrument is used in the interim. Type of instrumentation used during a sampling event is recorded in the daily field logs.

2.3 COLLECTION AND MANAGEMENT OF INVESTIGATION DERIVED WASTE

Investigation derived waste (IDW) generated during each groundwater sampling event includes purged water, decontamination water, excess sample material, and disposable sampling equipment. All water purged from monitoring wells generated during sampling and decontamination activities was temporarily stored in a labeled 55-gallon drum(s) and/or 5 gallon bucket(s) and then drained into the refinery sewer system upstream of the NAPIS.

2.4 COLLECTION OF SURFACE WATER SAMPLES

At the evaporation ponds, grab samples were collected near the inlets (pond edge). This location was noted in the field notebooks. For outfalls, a grab sample was collected at the pipe end, and recorded in the field log.

2.5 ANALYTICAL METHODS

Groundwater and surface water samples collected during the monitoring events were analyzed for the constituents listed in Table 1, Section 10.0. In addition, the WQCC standard was used for total and dissolved metals analysis.

2.6 PERIMETER INSPECTION

Perimeter inspections are part of the daily routine for refinery personnel to report any hydrocarbon staining, spills or any release that could result in material leaving the property boundary

2.7 REMEDIATION ACTIVITIES

A site investigation of the refinery tank farm network conducted in 1987 indicated high concentrations of BTEX constituents in the groundwater as well as hydrocarbons. As a result of the findings from additional site investigations conducted from 1987 through 1990, four recovery wells (RW-1, RW-2, RW-5, and RW-6) were installed to recover the SPH. SPH has been recovered from RW-1 using a submersible bladder pump and from RW-5 and RW-6 by hand-bailing using a disposable polyethylene bailer. Tables in Appendix A summarizes measurements, volume of product and water purged and also provides year to date (YTD) product purged from each well. RW-2 is listed as a recovery well but to date no visible hydrocarbon layer or odor has been observed in this well during quarterly inspections.

In RW-1 a bladder pump was used to pump out SPH on a quarterly basis into a labeled 55-gallon drum. The visible layer of floating product in the drum was measured with a tape measure and calculated as best as possible for the volume of product recovered. In RW-5 and RW-6, a 3 foot disposable hand bailer was used to extract product and water from the wells. Bailed water was collected in a 5-gallon bucket and the visible layer of floating product was then measured with a tape measure to estimate volume of SPH recovered. The purged water was drained into the refinery waste water treatment system upstream of the NAPIS.

Although the SPH thickness level in RW-1 has generally increased since the first quarter of 2013, hydrocarbon recovery from RW-1 has shown a general decrease from 2005 through 2016. In 2016, total hydrocarbon recovery is estimated at 8.5 gallons in 53 gallons of water purged compared to the 2005 estimate of 431 gallons of hydrocarbons in 1,210 gallons of water. No measureable hydrocarbons have been detected in RW-2 since the well was installed. RW-5 and RW-6 have shown a steady decrease in hydrocarbons since 2005 and no SPH has not been detected since February 2009 and November 2011, respectively. Hydrocarbon recovery logs are included in Appendix A.

On June 26, 2013, notification of the discovery of a hydrocarbon seep to the land surface was made to NMED and OCD. Shortly after the seep was initially discovered, fourteen soil excavations were completed in the area of the seep to help identify the presence of hydrocarbons in the shallow subsurface. The

excavations confirmed the presence of hydrocarbons throughout the immediate area of the seep and to the east and south of the seep. Six of the excavations were found to have sufficient hydrocarbons to warrant completion as temporary recovery sumps. A six-inch PVC well screen was placed into each of these six excavations and backfilled with coarse gravel to create temporary sumps to allow for safe, continued recovery of liquids. The sumps range in depth from approximately 8 to 10 feet and are estimated to be 4 feet wide by 6 feet long. The area has been identified as the “Hydrocarbon Seep”, located directly west of crude Tanks 101 and 102. Response actions have included installation of six temporary sumps (S1 – S6), and to date a total of 44 permanent monitoring wells (MKTF-1 through MKTF-44) have been installed to monitor ground water impacts. From June 2013 through December 2016 total hydrocarbon recovery is estimated to be 14,552 gallons and 899,480 gallons of water from the sumps. As noted in Appendix A, SPH recovery increased in July 2016 at the sumps. There were no changes to the recovery methods to explain the increase in recovery volumes.

Of the 44 permanent monitoring wells installed, eleven (MKTF 3, 5, 6, 7, 8, 12, 13, 14, 15, 36, 37) wells had measureable layers of product in 2016. Initial hydrocarbon recovery from these wells conducted in February and June 2015 is estimated at 11.2 gallons. No hydrocarbon recovery was done in 2016. The wells identified to have a product layer will be pumped on a more frequent basis to determine recharge rate and recovery of hydrocarbons.

SECTION 3

GROUNDWATER DTW/ DTP ELEVATION

Groundwater elevation data were collected from the wells listed in Tables 9.1 and 9.2, Section 9.0. A summary of field measurements (DTW, DTP) taken during the quarterly, semi-annual and annual inspections is included in Section 9. Groundwater levels and SPH column thickness measurements (from the RW series of wells as well as the MKTF wells) were collected quarterly to monitor groundwater elevation and product column thickness fluctuations over time. Maps were generated using elevation data collected from surveys conducted by DePauli Engineering and from Hammon Enterprises Inc., professional surveyor and data from the 2016 field inspection logs.

Field notes and measurement data were recorded in field logs for each well for 2016 and are located in Appendix B. The DTW and DTP levels were measured to the nearest 0.01-ft. The depth to groundwater and SPH column thickness are recorded relative to the surveyed well casing rim or other surveyed datum. A corrected water table elevation is provided in wells containing SPH by adding 0.8 times the measured SPH column thickness to the measured water table elevation (Section 9).

All water/product levels are measured to an accuracy of the nearest 0.01-ft using a WaterMark Oil Water Interface Meter, Model 101L/SMOIL (100 ft.). After the water level is determined, the well volume is calculated using the height of the liquid column and the internal cross sectional area of the well. The purge volume is a minimum of two times the well volume.

Groundwater and SPH levels were measured in all wells within 48 hours of the start of groundwater sampling activities. All manual extraction of SPH and water from recovery wells, observation wells, and collection wells is discontinued for 48 hours prior to the measurement of water and SPH levels. Figure 6 (Section 11) shows the locations of all active wells.

SECTION 4

REGULATORY CRITERIA

Laboratory analytical data is compared to the most current regulatory standards (Appendix C) at time of submission of report.

- New Mexico 20NMAC 20.6.2.3103 (WQCC). Standards for Groundwater of 10,000 mg/L TDS Concentration or Less
- EPA 40 CFR 141.62. National Primary Drinking Water Regulations (Updated MAY 2016) (EPA MCL)
- NMED Tap Water Screening Levels (JULY 2015)
- EPA Regional Screening Levels set for Residential Risk-Based Screening Levels (EPA RSL) for Tap Water (Ross) (MAY 2016)

SECTION 5

GROUNDWATER ELEVATIONS

Groundwater elevations are depicted in the following maps using data from the 2016 quarterly and annual sampling events. In addition, graphs of the water levels are included in Figures 11 – 11.4, 11-A and 11-B

- Figure 7 (Section 11) presents a south-north geologic profile (east side of the refinery) showing contours of monitoring wells with reference to stratigraphic locations in which the water bearing zones are located.

- Figure 8 (Section 11) presents a south-north section on the west side of the refinery showing contours of monitoring wells with reference to stratigraphic locations in which the water bearing zones are located.

- Figure 14 (Section 11) represents a geologic profile for the west-east well locations.

SECTION 6

GROUNDWATER MONITORING RESULTS

All analytical data tables referenced in the following subsections are included in Section 8 of this report. Bold and highlighted values indicate a constituent exceeds a listed standard(s). Due to requirements for field preservation of samples, some samples have the results for nitrite and nitrate reported as a single value of nitrogen. In these instances, the value is conservatively listed for both nitrite and nitrate and a comparison is made between the reported concentration and the regulatory standards for both nitrite and nitrate. This may result in false indication of nitrite exceeding the regulatory standard. Plots of the reported concentrations are provided in a series of Figures numbered 15 through 17. Appendix G - Laboratory data for 2016 sampling events is provided on attached CD.

6.1 CONSTITUENT LEVELS IN GROUP A MONITORING WELLS

Group A wells are located within the northwest corner of the refinery property. Nine monitoring wells are situated along the refinery boundary and six monitoring wells are within the RCRA LTU area.

6.1.1 BOUNDARY WELLS (BW -1A/1B/1C, BW-2A/2B/2C, BW-3A/3B/3C)

The nine boundary wells (BW), downgradient of the refinery property, are screened within three different stratigraphic units. BW-1A, BW-2A, and BW-3A are screened within the Upper Sand stratigraphic unit (Figure 12); BW-1B, BW-2B, and BW-3B are screened in the Chinle/Alluvium Interface stratigraphic unit (Figure 10); and BW-1C, BW-2C and BW-3C are screened within the Sonsela stratigraphic unit (Figure 9).

The BW-1A, BW-1B, and BW-1C wells are located on the elevated dike separating evaporation pond 7 (EP-7) and evaporation pond 8 (EP-8). BW-2A, 2B, and 2C are located on the northwest edge of evaporation pond 11 (EP-11) and BW-3A, 3B, and 3C are located in the field north of evaporation ponds 12A and 12B (EP-12A and EP-12B). The boundary wells are sampled on an annual basis and evaluated for the following analytes: 8260B plus MTBE, gasoline range organics, (GRO), diesel range organics (DRO) and motor oil range organics (MRO), major cations/anions, and WQCC metal (total and dissolved). No water level was

detected in wells BW-1A, BW-3A, and BW-1B. The boundary wells were sampled and/or inspected on the following dates:

WELL ID	DATE	WELL ID	DATE	WELL ID	DATE
BW-1A	9/8/16	**BW-2A**	9/8/16	**BW-3A**	9/8/16
BW-1B	9/8/16	**BW-2B**	9/8/16	**BW-3B**	9/8/16
BW-1C	9/8/16	**BW-3C**	9/8/16	**BW-3C**	9/8/16

- No BTEX or MTBE constituents were detected in BW-1C, 2A, 2B, 2C, 3B or 3C in 2016. (Table 8.1).
- Fluoride was detected above the WQCC standard of 1.6 mg/L in BW-1C (2.4 mg/L), and BW-2C (1.9 mg/L). Low concentrations of chloride, sulfate and bromide were detected in each of the BW wells sampled in 2016. Phosphorus exceeded applicable standards in BW-1C, BW-2A and BW-3B (Table 8.1.1).
- Low concentrations of total and dissolved metals were detected in each of the BW wells in 2016 at concentration levels below the applicable standards. (Tables 8.1.2 and 8.1.3)
- Bis(2-ethylhexyl)phthalate was detected in BW-1C in 2013, in BW-3B in 2009, and BW-3C in 2011 and may possibly be a lab contaminant or from the PVCC pipe materials used as casing in these wells. The constituent was not detected in any of the BW wells sampled in 2016. As of 2016, SVOCs were removed from analytical requirement (Table 8.1.4).

6.1.2 LAND TREATMENT UNIT (MW-1, MW-2, MW-4, MW-5, SMW-2, and SMW-4)

The LTU groundwater monitoring wells include MW-1, MW-2, MW-4, MW-5, SMW-2, and SMW-4. MW-1, SMW-4, and MW-2 are located downgradient along the north edge of the closed RCRA LTU. MW-5 and SMW-2 are located on the eastern perimeter of the LTU and MW-4 is located upgradient (south) of the LTU. MW-1, MW-2, MW-4, MW-5 are screened within the Sonsela stratigraphic unit. SMW-4 is screened within the Chinle/Alluvium Interface and SMW-2 is screened in both the Chinle/Alluvium Interface and Upper Sand stratigraphic units.

The LTU monitoring wells are sampled on an annual basis. In addition, MW-1, MW-2, MW-4, and MW-5, SMW-2 and SMW-4 are sampled every 10 years to comply with the RCRA Post Closure Permit. Annual samples were analyzed for the following analytes: 8260B plus MTBE, DRO, GRO, MRO, major cations/anions, WQCC metals (total and dissolved), cyanide, VOCs and SVOCs.

Annual sampling and inspections for 2016 on the LTU monitoring wells were completed on the following dates:

WELL ID	DATE	WELL ID	DATE
MW-1	9/7/16	**SMW-2**	9/9/16
MW-2	9/7/16	**SMW-4**	9/9/16
MW-4	9/7/16		
MW-5	9/7/16		

The next 10 year RCRA Post Closure Permit sampling event for MW-1, MW-2, MW-4, MW-5, SMW-2 and SMW-4 is scheduled to occur in 2019. The following analytes are evaluated during the RCRA Post Closure Permit sample event: modified Skinner List for VOCs, SVOCs, total petroleum hydrocarbons (TPH), DRO, GRO, MRO, metals to include mercury and cyanide, and major cations/anions with pH and conductance.

- No BTEX or MTBE have been detected in any of the MW wells. (Table 8.2)
- Low concentrations of fluoride, chloride and sulfate were detected in the MW wells in 2016 at concentration levels below the applicable standards.
- Metals (total and dissolved) was also detected in concentrations below the applicable standards in all of the MW wells in 2016.
- Several organic compounds were detected at low concentrations in 2016 in all of the MW wells (bis (2-ethylhexyl)phthalate, benzoic acid, d-n-octylphthalate, dimethylphthalate, and pyrene),
- No concentrations of BTEX or MTBE was detected in any of the SMW wells, with the exception of SMW-2 which has had low concentrations of MTBE below the applicable standard of (0.143 mg/L). (Table 8.3).
- In SMW-2, chloride and sulfate were detected above the WQCC standards since 2011. Low concentrations of fluoride, chloride and sulfate have been detected in SMW-4. GRO was also detected in both SMW wells. (Table 8.3.1)
- Low concentrations of metals (total and dissolved) have been detected in both wells, with manganese exceeding the WQCC standard of 0.2 mg/L in 2016. (Table 8.3.2 – 8.3.3)
- In 2016, five organic constituents were detected at concentration levels below the applicable standard (benzoic acid, bis(2-ethylhexyl) phthalate, di-n-octylphthalate, dimethylphthalate, and pyrene). (Tables 8.3.4).

6.2 CONSTITUENT LEVELS IN GROUP B MONITORING WELLS

There are ten monitoring wells in Group B, not including the three leak detection units. These wells are located within the aeration basin west of the refinery tank farm. Group B includes three groundwater monitoring wells (GWM), four monitoring wells for the New American Petroleum Institute Separator (NAPIS), three leak detection units (LDU), OAPIS-1 installed in 2012 as a result of the Solid Waste Management Units (SMWU) No. 1, Aeration Basin and SMWU No. 14, Old API Separator site investigation. Two new monitoring wells (STP1-NW and STP1-SW) installed on the west end of the sanitary treatment pond (STP-1) in May 2014.

6.2.1 GROUNDWATER MONITORING WELLS (GWM-1, GWM-2, GWM-3)

The GWM series of wells are all screened in the Chinle/Alluvium Interface stratigraphic unit. GWM-1 and GWM-2 are located on the west side of the aeration basin straddling the dike that separates AL-2 and EP-1. Downgradient from GWM-1 and GWM-2 is GWM-3 located on the northwest corner of EP-1. These wells are inspected and sampled on a quarterly basis. No groundwater has been detected in GWM-2 and GWM-3 in 2014, 2015 and 2016. In fourth quarter 2015, an SPH level was detected in GWM-1 and in all of 2016 and no ground water samples were collected.

Groundwater samples from GMW-1 were analyzed for the following constituents: BTEX, MTBE, DRO, GRO, MRO, major cations/anions, WQCC total and dissolved metals, and VOCs and SVOCs.

Quarterly inspections and sampling of the GMW wells were completed on the following dates:

WELL ID	QTR 1	QTR 2	QTR 3	QTR 4
GWM-1	3/1/16	6/7/16	9/13/16	11/14/16
GWM-2	3/1/16	6/7/16	9/13/16	11/14/16
GWM-3	3/1/16	6/7/16	9/13/16	11/14/16

- No groundwater sample was collected from GWM-1 in all of 2016 due to the detection of SPH.
- No ground water samples were collected from GWM-2 and GWM-3 in all of 2016, wells are dry.
- Elevated concentration levels of benzene above the EPA MCL standard of 0.005 mg/L have been detected in GWM-1 since 2010 thru third quarter 2015, with the highest concentration recorded in the fourth quarter 2014 at 0.012 mg/L. Concentrations of ethylbenzene, toluene, xylenes, and MTBE remain within the applicable standards for GWM-1 (Table 8.7).

- DRO and GRO were detected in GWM-1 from 2010 through 2015 and in the fourth quarter 2015, MRO was detected in GWM-1 at 18 mg/L

- Fluoride and chloride have been detected in GWM-1 exceeding the WQCC standard (1.6 mg/L) since 2006 in GWM-1 with the exception of quarter four in 2011.

- Fluoride and chloride have also been detected in GWM-2 and GWM-3 at levels above the WQCC standards from 2010 thru 2013.

- Concentrations of total and dissolved arsenic, iron, and manganese in GWM-1 have exceeded applicable standards since 2008. Low concentrations of barium, chromium, lead, selenium and zinc have been detected in prior years. Total and dissolved barium and total lead concentrations, were detected within the applicable standards for all of 2015. Concentrations of the remaining total and dissolved metals did not exceed the applicable standards during 2015 (Tables 8.7.2 and 8.7.3).

- Concentrations of VOCs and SVOCs detected above the applicable standards in third quarter 2015 in GWM-1 include; naphthalene, 1-methylnaphthalene, 2-methylnaphthalene, benz(a)anthracene, benzo(a)pyrene, chrysene, fluorene, phenanthrene, and pyrene. (Table 8.7.4) No organic constituents have been detected in GWM-2 and GWM-3.

GWM-2 and GWM-3 were installed and developed in 2005. The wells are checked quarterly for the presence of water. If water is detected, NMED and OCD are notified within 24 hours of discovery. The water is purged from the well and re-measured to calculate the potential recharge rate. Groundwater samples are collected when water level is sufficient.

Groundwater was first observed in GWM-2 during the first quarter of 2008. The depth to water was 18.45 feet with an estimated water column height of 0.36 feet. Samples were collected and the well was bailed dry. GWM-2 did not recharge and remained dry until the third quarter of 2010. GWM-2 continued to recharge as samples were collected throughout 2011, 2012, and most of 2013. GWM-2 has had an insufficient volume for sampling since the fourth quarter of 2013 and remained dry throughout 2016. GWM-3 has remained dry since 2013. In late 2012 through early 2013, rerouting of the flow to the WWTP caused a reduction in the levels in the aeration lagoons and gravitational flow between the lagoons to pond 1 ceased.

6.2.2 GROUNDWATER MONITORING WELLS: NAPIS-1, NAPIS-2, NAPIS-3, AND KA-3

The NAPIS groundwater monitoring wells are located east of the aeration lagoons. NAPIS-1 is an upgradient well located on the southeast side of the separator. The NAPIS-2 monitoring well is located in the southwest corner of the bay to the separator, and NAPIS-3 is located in the northwest corner. KA-3 is located between NAPIS-2 and NAPIS-3 on the west side of the bay to the separator unit. These wells are

screened in the Chinle/Alluvium stratigraphic unit with three of the wells (NAPIS-2, NAPIS-3, and KA-3) installed subsurface.

The NAPIS and KA wells are sampled on a quarterly basis. In agreement with OCD and approved by NMED, the third quarter sampling is combined with the annual sampling event. Groundwater samples were analyzed for the following parameters: BTEX, MTBE, major cations/anions, WQCC total and dissolved metals, and VOCs and SVOCs.

WELL ID	QTR 1	QTR 2	QTR 3	QTR 4
NAPIS-1	3/1/16	6/7/16	9/1/16	11/14/16
NAPIS-2	3/1/16	6/7/16	9/1/16	11/14/16
NAPIS-3	3/1/16	6/7/16	9/1/16	11/14/16
KA-3	3/3/16	6/6/16	9/1/16	11/14/16

- BTEX and MTBE have remained below the applicable standards since 2008 for NAPIS-1. Benzene and MTBE concentrations in NAPIS-2 have exceeded the applicable standards since 2008 and remained in exceedance for 2016. BTEX constituents were detected in NAPIS-3 along with MTBE being detected at 0.16 mg/L in the first quarter. Benzene was detected in NAPIS-3 at a concentration of 0.013 mg/L in the first quarter, which exceeds the cleanup standard of 0.005 mg/L. The benzene concentrations for the remainder of the year were <0.001 mg/L at NAPIS-3 for the remainder of the year.

- In KA-3, benzene was detected above the cleanup standard of 0.005 mg/L in the first, second and third quarter of 2016 and low concentrations (below the cleanup standards) of ethyl benzene and MTBE have been detected in all of 2016 below applicable standards. (Table 8.8).

- DRO has been detected in the third and fourth quarter in NAPIS-2 and in the fourth quarter in NAPIS-3. Detections of GRO in NAPIS-2 and KA-3 continues and in all of 2016. No MRO has been detected in any of the NAPIS or KA wells. (Table 8.8.1).

- Low concentrations of fluoride, chloride, nitrites, nitrates and sulfate have been detected in NAPIS-1 in 2016 (Table 8.8.1).

- Fluoride and chloride concentrations in NAPIS-2 have exceeded the WQCC standards of 1.6 mg/L and 250 mg/L, respectively, for Q2, Q3, and Q4 2016. Fluoride concentrations were at acceptable levels in the first quarter while chloride levels were at 330 mg/L in the first quarter (Table 8.8.1).

- Fluoride, chloride, nitrate and nitrite concentrations in NAPIS-3 also exceeded applicable standards in various quarters of 2016. (Table 8.8.1). The fluoride cleanup goal of 1.6 mg/L was exceeded in the third and fourth quarters. Chlorides exceeded the cleanup goal of 250 mg/L in all four quarters. The cleanup goals for nitrites (10 mg/L) and nitrates (10 mg/L) were exceeded in the first and second quarters. Phosphate was also detected in the third and fourth

quarters, but not at levels that exceeded any regulatory limits. The probable source of the phosphates is uncertain. The only other well in the vicinity of NAPIS-3 that had a detection of phosphate was OW-12, in September 2016. Since OW-12 is up gradient of NAPIS-3, it is possible that the source of the phosphate is in an up gradient direction.

- Fluoride and sulfate concentrations in KA-3 have remained below the WQCC standard since June of 2013. Chlorides concentrations had only one exceedance during that same time in September 2014 of 790 ppm. (Table 8.8.1).

- Detection of total metals include manganese in NAPIS-1 for all metals analyses of 2016 (i.e., second, third and fourth quarters) at concentration levels above the WQCC standard of 0.2 mg/L and trace amounts of arsenic, barium, iron, lead, selenium, mercury and zinc were detected in 2016 in NAPIS-1. In NAPIS-2, barium, iron and manganese also had high concentrations detected in all of 2016. Low concentrations of arsenic, chromium, copper, lead, selenium, mercury and zinc were detected, all at levels below the applicable standards. Total lead concentrations were below the cleanup standard in the second quarter, but were slightly above the cleanup standard in the third and fourth quarters in samples collected at NAPIS-3 (Table 8.8.2). In addition to lead, in NAPIS-3, arsenic, barium, chromium, iron, and manganese were detected in the fourth quarter of 2016 at concentration levels above the applicable standards. Copper, lead, selenium, mercury and zinc were also detected at levels below the applicable standards in 2016. (Tables 8.8.2).

- In the dissolved metals analyses, uranium exceeded the standard at NAPIS-1 in the fourth quarter and in the second and fourth quarters at NAPIS-3. At NAPIS-2, dissolved barium, iron, and manganese exceeded in the second, third, and fourth quarters with the single exception of barium in the second quarter of 2016, which was below the standard. Dissolved iron, manganese, and uranium exceeded in the fourth quarter sample collected at NAPIS-3. Dissolved uranium also exceeded the standard in the second quarter at NAPIS-3.

- In KA-3, barium (total and dissolved) and iron (total) were detected at high concentrations in the fourth quarter 2016. Manganese (total and dissolved) was detected at levels exceeding applicable standards in all samples collected in 2016. Arsenic, copper, lead, selenium, mercury, uranium, and zinc were also detected at levels below the applicable standards in 2016. (Tables 8.8.2 and 8.8.3).

- No VOCs have been detected in NAPIS-1 and NAPIS-3 with the exception of low concentrations of 1,2,4-trimethylbenzene, 1,2-dichloroethane (EDC) and 1-methylnaphthalene detected in the fourth quarter. In NAPIS-2, 12 organic compounds were detected in 2016 all at concentrations below the applicable standards and 1-methylnaphthalene and naphthalene were detected at levels exceeding applicable standards in 2016. In the first quarter well NAPIS-3 had detections below the applicable groundwater protection standards of naphthalene, 1,1-dicloroethane, 1,1-dichloroethene, isopropyl benzene, n-butyl benzene, sec-butyl benzene, and cis-1,2-dichloroethylene.

- In KA-3, trace amounts of ten VOCs were detected, most at concentrations below the applicable standards. It is noted that the 1- methylnaphthalene concentration in the groundwater sample collected from well KA-3 exceeded the standard during the third quarter of 2016. See Table 8.8.4 for the complete list.

6.2.3 LEAK DETECTION UNITS (LDU): EAST LDU, OIL SUMP LDU, WEST LDU

The NAPIS secondary containment units otherwise known as leak detection units (LDU) are installed on the east and west bay of the NAPIS unit. The East LDU is located on the southeast corner in the east bay of the NAPIS unit between the unit and NAPIS-1. The Oil Sump LDU is located on the northeast side of the East LDU. The West LDU is located in the southwest corner of the west bay of the NAPIS unit. The LDUs were monitored in 2010 as part of the 2010 Facility Wide Groundwater Monitoring Work Plan (FWGWMP).

The LDU are sampled and inspected on a quarterly basis. In agreement with OCD and approved by NMED,

the third quarter sampling was combined with the annual sample event. The LDUs were sampled for the following analytes in 2016: BTEX, MTBE, DRO, GRO, MRO, WQCC total and dissolved metals, and VOCs. Oil Sump LDU was dry all four quarters 2016 and therefore not sampled. There was not enough water in the East and West LDU for sample collection in the third quarter of 2016. Quarterly inspections and sampling were completed for the LDU wells on the following dates:

SAMPLE ID	QTR 1	QTR 2	QTR 3	QTR 4
EAST LDU	3/1/16	6/7/16	9/6/16	11/17/16
WEST LDU	3/1/16	6/7/16	9/6/16	11/17/16
OIL SUMP LDU	3/1/16	6/7/16	9/6/16	11/17/16

- Benzene was detected in the East LDU at concentration levels above the applicable standard and low concentrations of toluene, ethyl benzene, total xylenes and MTBE were also detected. DRO and GRO was also detected in 2016 in the East LDU (Table 8.10).
- In the West LDU, benzene exceeded applicable standards in all of 2016. Toluene, ethyl benzene, total xylenes, and MTBE were also detected at concentration levels below the applicable standards. DRO and GRO were also detected in 2016. (Table 8.10).
- No samples were collected from the Oil Sump LDU since the second half of 2013; no water level has been observed.
- The following metals (total and dissolved) have been detected at concentration levels above the applicable standard in 2016 in the East LDU: Chromium and manganese (first, second and fourth quarters). Iron was detected above the standard in the first, second and fourth quarters total analyses and fourth quarter dissolved analysis). Chromium and manganese (total and dissolved) and iron (total only) were detected at concentrations above the applicable standards in the West LDU. Low concentrations of arsenic, barium, copper, lead, selenium, mercury and zinc was also detected in the East LDU. (Table 8.10.1 and 8.10.2).
- Concentrations of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene exceeded the EPA RSL standards in the East LDU in the first and second quarters of 2016. Concentrations of 1,2,4-trimethylbenzene, exceeded EPA RSL standards in the West LDU in the second quarter 2016. (Table 8.10.3).

6.2.4 GROUNDWATER MONITORING WELL: OAPIS-1

The OAPIS-1 groundwater monitoring well was installed in 2012 on the southeast edge of AL-2 as a result of the Investigation Work Plan for SMWU No. 1 (Aeration Basin) and SMWU No. 14 (Old API Separator). The OAPIS–1 well is screened in the Chinle/Alluvium Interface stratigraphic unit. The OAPIS-1 well was added to the quarterly sample schedule in 2013. In agreement with OCD and as approved by NMED, the third quarter sample event was combined with the annual sample event.

In 2016, groundwater samples were collected from OAPIS-1 for the following analytes: BTEX, MTBE, DRO, GRO, MRO, major cations/anions, WQCC total and dissolved metals, cyanide, VOCs and SVOCs.

The OAPIS-1 well was inspected and sampled on the following dates in 2016:

WELL ID	QTR 1	QTR 2	QTR 3	QTR 4
OAPIS-1	3/1/16	6/7/16	9/1/16	11/14/16

- Benzene and MTBE concentrations exceeded the EPA MCL standards (0.005 mg/L and 0.143 mg/L, respectively) for each quarterly sample event in 2016. Concentrations of toluene, ethylbenzene and total xylenes were also present but remained below the applicable standard in 2016 (Table 8.9).

- In 2016, DRO and GRO concentrations were detected in all of 2016. Chloride concentrations exceeded the WQCC standards of 250 mg/L, and fluoride was also above the applicable standard of 1.6 mg/L in the first quarter. (Table 8.9.1).

- The following metals (arsenic, iron, and manganese) exceeded the applicable standards in 2016 and total cyanide was detected at 0.504 mg/L in the fourth quarter 2016. Barium, chromium, copper, lead, selenium, mercury and zinc were also detected at levels below the applicable standards in 2016. (Table 8.9.2).

- In the first quarter of 2016, 1,2-dichloroethane(EDC) was detected 0.0062 mg/L exceeding the EPA MCL standard of 0.005 mg/L. 1-methylnaphthalene was detected above the applicable standards in all of 2016. Bis(2-ethylhexyl) phthalate was reported at 0.019 mg/l, which exceeds the screening level of 0.0056 mg/l, in the sample collected in the second quarter. Low concentrations of 14 organic compounds were detected throughout 2016 all at levels below applicable standards. See Table 8.9.4 for a complete list of VOCs and SVOCs..

6.2.5 STP1-NW and STP1-SW

Monitoring well STP1-NW is located on the west end of the north bay (STP-1) and STP1-SW is located on the southwest corner of the south bay of STP-1. These wells were installed in May of 2013. Ground water samples were analyzed for the following analytes: 8260B plus MTBE, DRO, GRO, MRO, major cations/anions, WQCC total and dissolved metals, cyanide and SVOCs.

The STP1-NW and STP1-SW wells were inspected and sampled on the following dates in 2016:

WELL ID	QTR 1	QTR 2	QTR 3	QTR 4
STP1-NW	3/2/16	6/7/16	9/9/16	11/14/16
STP1-SW	3/2/16	6/7/16	9/9/16	11/14/16

- No samples collected from STP1-SW as this well has remained dry.

- There were no BTEX, DRO, GRO, or MRO constituents detected in 2016 in STP1-NW. Low concentrations of MTBE were detected in all of 2016 below the applicable standard of 0.143 mg/L. (Table 8.14).

- Chloride was detected above the applicable standard of 250 mg/L in the second, third and fourth

quarter of 2016.

- Nitrates were detected at concentration above the appropriate cleanup level in the second, third and fourth quarters of 2016.

- Silver was detected at a concentration below the applicable cleanup standard in November 2016.

- Arsenic, iron, lead and manganese were detected above the applicable standards in the fourth quarter 2016. Barium, chromium, copper, selenium, mercury and zinc were also detected at concentration levels below the applicable standards. (Tables 8.14.1).

No SVOCs were detected Only one VOC (MTBE) was detected in 2016.

6.3 CONSTITUENT LEVELS IN GROUP C MONITORING WELLS

The Group C wells include six observation wells (OW-13, OW-14, OW-29, OW-30, OW-50, and OW-52) located on level terrain northeast of the refinery tank farm, and four recovery wells (RW-1, RW-2, RW-5, and RW-6) located within the refinery tank farm. Observation wells OW-50 and OW-52 were installed in 2009 to monitor potential migration of constituents. The recovery wells were installed between 1987 and 1990 and have been used to recover SPH.

6.3.1 OBSERVATION WELLS: OW-13, OW-14, OW-29, and OW-30

The observation wells OW-14, OW-29, and OW-30 are screened in the Chinle/Alluvium Interface; observation well OW-13 is screened in the Sonsela stratigraphic unit. OW-13 is downgradient (north) of the tank farm and OW-14 is upgradient and adjacent to the LPG tank farm. OW-29 is located directly north of OW-14 and OW-30 is situated northeast of OW-14 along the east side of the railroad spur entering the refinery property from the north. These observation wells are sampled quarterly and in agreement with OCD, approved by NMED, the third quarter sampling event is combined with the annual sampling requirement per the OCD discharge permit.

Groundwater samples were collected from these observation wells and submitted for laboratory analyses of the following analytes: BTEX, MTBE, DRO, GRO, MRO, major cations/anions, WQCC total and dissolved metals, and VOCs.

Observation wells OW-13, OW-14, OW-29, and OW-30 were sampled on the following dates in 2016:

WELL ID	QTR 1	QTR 2	QTR 3	QTR 4
OW-13	3/4/16	6/6/16	8/31/16	11/15/16

OW-14	3/4/16	6/6/16	8/31/16	11/15/16
OW-29	3/4/16	6/6/16	8/31/16	11/15/16
OW-30	3/8/16	6/6/16	8/31/16	11/14/16

- In OW-13, a low concentration of benzene was detected in the third quarter 2016 below the applicable standard (0.005 mg/L) and low concentrations of MTBE continues to be detected at concentrations below the applicable standard of 0.143 mg/L. Toluene, ethylbenzene and xylenes were all non-detected for 2016. (Table 8.13)

- In OW-14, benzene and MTBE were above the applicable standard of 0.005 mg/L and 0.143 mg/L with the highest level of benzene (8.7 mg/L) in the fourth quarter and 0.68 mg/L of MTBE in the first quarter 2016.

- OW-29 sampling results indicate levels above the applicable standard of 0.143 mg/L for MTBE in all of 2016, with the highest reading of 3.4 mg/L occurring in the fourth quarter. Benzene was detected in the fourth quarter only above the applicable standard of 0.005 mg/L and in the fourth quarter, ethylbenzene was recorded at 0.0011 mg/L; below the applicable standard of 0.7 mg/L. Toluene and total xylenes were all non-detect for 2016. (Table 8.13).

- In OW-30, MTBE was detected above the applicable standard of 0.143 mg/L in all of 2016, with the highest reading of 3.5 mg/L in the first and fourth quarter. A low concentration of benzene was detected in the second quarter at 0.0031 mg/L. No detections of toluene, ethylbenzene or xylenes in 2016. (Table 8.13).

- GRO was detected in OW-13, OW-14, OW-29 and OW-30 in all of 2016 and DRO was detected only in OW-14 in 2016. (Table 8.13.1).

- Metals (total and dissolved). No metals were detected in OW-13 that exceeded applicable standards in 2016. (Table 8.13.1).

- Metals (total and dissolved). Arsenic, barium, iron and manganese were detected at concentration levels above applicable standards in 2016 in OW-14.

- Metals (total and dissolved). In OW-29, manganese was detected at levels above the applicable standard of 0.2 mg/L in all of 2016.

- No metals (total and dissolved) were detected exceeding the applicable standards in 2016 in OW-30.

- In OW-13, 1,2-dichloroethane (EDC) was detected in all of 2016 at concentration levels below the applicable standard of 0.005 mg/L. (Table 8.13.4).

- 1-methylnaphthalene and naphthalene was detected in OW-14 in all of 2016 at concentrations above the EPA RSL for tap water standard of 0.0011 mg/L and 0.00165 mg/L (NMED Tap Water) for naphthalene. Methylene chloride was also detected at 0.011 mg/L which exceeds the cleanup standard of 0.005 mg/L Nine other organic compounds were also detected at concentration levels below the applicable standards. See Table 8.13.4 for a complete list.

- No organic compounds detected were exceeding applicable standards in OW-29 and OW-30 in all of 2016. See Table 8.13.4 for a complete list.

6.3.2 OBSERVATION WELLS: OW-50 and OW-52

Observation wells OW-50 and OW-52 were installed upgradient from OW-13 and OW-29 in 2009 to monitor

possible migration of MTBE. The two observation wells are screened in the Chinle/Alluvium Interface stratigraphic unit. A request to change the 2010 FWGWMP sample frequency from quarterly to annual for OW-50 and OW-52 was approved by NMED in 2012 (2011 Updates, Comment 6).

However, due to the detection of MTBE and 1,2-dichloroethane (EDC) in both wells in 2016, the sampling frequency will be reverted back to quarterly to ensure timely detection of concentration changes and plume migration. The facility Groundwater Monitoring Plan will also be modified to reflect the more frequent sampling schedule as will Table 1, Section 10 (sampling frequency) of this report as well as the Facility Wide Groundwater Monitoring Plan.

In 2016, groundwater samples were collected from observation wells OW-50 and OW-52 for the following analytes: BTEX, MTBE, DRO, GRO, MRO, major anions/cations, WQCC total and dissolved metals, and VOCs.

Observation wells OW-50 and OW-52 were sampled on the following dates during the third quarter in 2016:

WELL ID	SAMPLE DATE
OW-50	9/9/16
OW-52	9/9/16

- BTEX, DRO, GRO, and MRO constituents have not been detected in either OW-50 or OW-52 since 2010 through 2016, however a low concentration of MTBE was detected in both wells in 2016 in the fourth quarter. (Tables 8.5 and 8.5.1).
- Low concentrations of fluoride, chloride and sulfate were detected in 2016 but remain below the applicable standards (Table 8.5.1).
- Low concentrations of total and dissolved arsenic, barium, iron, lead, manganese, selenium, mercury and zinc have been detected in OW-50 and OW-52 in 2016 and are at concentration levels below the applicable standards (Tables 8.5.2 and 8.5.3).
- 1,2-dichloroethane (EDC) was the only organic compound (other than MTBE) detected in 2016 in OW-50 and OW-52 at concentration levels below the EPA MCL standard of 0.005 mg/L. (Table 8.5.4).

6.3.3 RECOVERY WELLS: RW-1, RW-2, RW-5, RW-6

The recovery wells RW-1, RW-2, RW-5, and RW-6 are shallow wells installed in the refinery tank farm located in the east-central portion of the refinery property. The recovery wells are screened within the Chinle/Alluvium Interface stratigraphic unit and are used to recover SPH. RW-1 is located east of Tank 716; RW-2 is located between Tanks 574 and 576; and RW-5 and RW-6 are located in the northwest corner of the tank farm, east of Tanks 337 and 345.

Quarterly inspections for the RW wells include product recovery of SPH using disposable bailers in RW-5

and RW-6, and a portable 2-inch bladder pump for RW-1. Hydrocarbon thickness is measured prior to being removed. Purge water is collected and disposed upstream of the NAPIS. Hydrocarbon recovery is estimated based on measurements and observations.

The RW wells were added to the annual sampling schedule in 2011, per the Approval with Modifications in the 2010 FWGWMP. For 2016, the wells were sampled and evaluated for the following analytes: BTEX, MTBE, DRO, GRO, and MRO.

The recovery wells were inspected and sampled in 2016 on the following dates:

WELL ID	QTR 1	QTR 2	QTR 3	QTR 4
RW-1	3/4/16	6/8/16	9/13/16	11/16/16
RW-2	3/4/16	6/8/16	9/13/16	11/16/16
RW-5	3/4/16	6/7/16	9/13/16	11/16/16
RW-6	3/4/16	6/7/16	9/13/16	11/16/16

- No samples were collected from RW-1 due to SPH levels
- BTEX and MTBE concentrations exceeded applicable standards in RW-2 in 2016. Benzene exceeded the applicable standard in RW-5 and benzene and total xylenes concentrations exceeded applicable standards in RW-6. Concentrations of toluene, total xylenes and ethyl benzene were detected in RW-5 and RW-6 which did not exceed applicable standards. (Table 8.11).
- DRO and GRO concentrations were detected in RW-2, RW-5 and RW-6 in all of 2016 with the highest concentration of GRO in RW-2 (160 mg/L – first quarter), and DRO (14 mg/L in second and third quarters) in RW-2.

Hydrocarbon recovery from RW-1 has shown a steady decrease from 2005 through 2016. In 2016, total hydrocarbon recovery is estimated at 8.5 gallons in 53 gallons of water purged compared to the 2005 estimate of 431 gallons of hydrocarbons in 1,210 gallons of water. No measureable hydrocarbons have been detected in RW-2 since the well was installed. RW-5 and RW-6 have shown a steady decrease in hydrocarbons since 2005. No measureable SPH has been detected in RW-5 and RW-6 since February 2009 and November 2011.

6.4 CONSTITUENT LEVELS IN GROUP D MONITORING WELLS

The Group D wells include three process/production wells, PW-2, PW-3, and PW-4 that supply water to the

refinery and for domestic uses. These process wells reach approximately 1,000 feet and are screened in the San Andreas/Yeso aquifer. Additionally, Group D also includes four observations wells OW-1, OW-10,OW-11, and OW-12. The OW-1 and OW-10 wells are located in the northwest portion of the refinery and are considered artesian wells. OW-11 is located near the entrance of the refinery and OW-12 is west of the tank farm in the surplus yard.

6.4.1 PROCESS WELLS: PW-2, PW-3, PW-4

PW-2, PW-3 and PW-4 are all process/production wells which supply process water to the refinery and domestic water to the company housing and Travel Center. PW-2 is located west of evaporation pond 6 (EP-6). PW-3 is centrally located directly north of the maintenance shop, and PW-4 is located on the southern edge of the refinery property and adjacent to the Pilot Lift Station.

Production well PW-2 is on a staggered 3-year sampling schedule, PW-3 is sampled on an annual basis since 2010 due to the detection of 2-methylnaphthalene exceeding the applicable standard in 2008. In 2013, three organic compounds were detected in PW-4 at very low concentrations and per NMED directive (HWB-WRG-14-006), sampling of this well was switched to semi-annual to begin in 2017 to collect additional data. Ground water samples are collected or the following analytes: BTEX, MTBE, nitrate, WQCC total and dissolved metals, and VOCs and SVOCs.

The process well PW-3 was sampled in 2016 on the following dates:

WELL ID	DATE
PW-3	8/31/16
PW-4	6/10/16; 8/31/16

- No BTEX or MTBE constituents were detected in PW-3 or PW-4 in 2016 (Table 8.6).
- Low concentrations of the following metals (total and dissolved) were detected in both wells in 2016: Arsenic, barium, iron, lead, manganese, selenium, and zinc at levels below the applicable standards (Table 8.6.1 and 8.6.2). Cyanide was at non-detectable levels in both wells.
- There were a total of five organic constituents detected in PW-3 all at concentrations below the applicable standards in 2016. See Table 8.6.3 for a complete list.
- In 2016, 10 organic compounds were detected at concentration levels below the applicable standards in PW-4.

6.4.2 OBSERVATION WELLS: OW-1 AND OW-10

Observation well OW-1 is an artesian well located on the west side of EP-6. Well OW-10 is located downgradient from OW-1 on the east side of EP-9. Wells OW-1 and OW-10 are screened in the Sonsela stratigraphic unit. Inspection requirements for these two wells were modified in 2010, per the 2010 FWGWMP, and included sampling on a quarterly basis. In agreement with OCD, approved by NMED, the third quarter sampling was combined with the annual sampling event. In 2016, groundwater samples from OW-1 and OW-10 were evaluated for the following analytes: BTEX, MTBE, DRO, GRO, MRO, major cations/anions, WQCC total and dissolved metals, VOCs.

Groundwater samples were collected from OW-1 and OW-10 in 2016 on the following dates:

WELL ID	QTR 1	QTR 2	QTR 3	QTR 4
OW-1	3/3/16	6/6/16	9/6/16	11/15/16
OW-10	3/3/16	6/6/16	9/6/16	11/15/16

- Low concentrations of benzene, ethyl benzene and MTBE were detected in OW-1 in 2016 below applicable standards. Only the constituent MTBE was detected in OW-10 in all of 2016 at concentration levels below the applicable standard of 0.143 mg/L (NMED Tap Water). (Table 8.12).

- Low concentrations of anions were detected in OW-1 throughout 2016 at concentration levels below the applicable standard and no DRO/GRO/MRO were detected. OW-10 had exceedances of chloride in all of 2016 above the WQCC Standard of 250 mg/L. GRO was detected in the first, second and fourth quarters of 2016 in OW-10. (Table 8.12.1).

- Total metals (Iron and manganese) were detected at concentration levels above the applicable standards in OW-1 in 2016.

- Metals (total and dissolved): Low concentrations of the following metals were detected in both OW-1 and OW-10 In 2016 at concentration levels below applicable standards: Arsenic, barium, chromium, iron, lead, manganese, selenium, silver, mercury and zinc. See Table 8.12.1 and 8.12.2 for a complete list.

- In 2016 no VOCs were detected in OW-1, however in OW-10 four organic compounds were detected at concentrations below the applicable standards and are listed as follows: 1,1-Dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane (EDC) and cis-1,2-DCE. (Table 8.12.4).

6.4.3 OBSERVATION WELLS: OW-11 AND OW-12

Observation well OW-11 is located within the refinery property (southeast) on the west side of the main entrance. Well OW-12 is located within the surplus or bone yard located west and slightly north of the primary tank farm. OW-11 and OW-12 are screened in the Sonsela stratigraphic unit.

Well inspections and sampling are conducted annually. In 2016, groundwater samples from the two wells were evaluated for the following analytes: BTEX, MTBE, major anions/cations, GRO, DRO, MRO, WQCC total and dissolved metals, VOCs, and SVOCs. Observation well OW-11 and OW-12 were sampled in the third quarter of 2016 on the following dates:

WELL ID	DATE
OW-11	9/9/16
OW-12	9/8/16

- BTEX and MTBE have not been detected in OW-11 and OW-12 since 2006 and remained non-detect for 2016 (Table 8.4).
- Sulfate concentrations continue to exceed the applicable standards (600 mg/L) in OW-11. (Table 8.4.1).
- GRO, DRO and MRO were not detected in OW-11 and OW-12 in 2016 (Table 8.4.1).
- The following metals (total and dissolved) were detected at concentrations below the applicable standards in OW-11 and OW-12 in 2016: Arsenic, barium, chromium, iron, lead, manganese, selenium, and mercury. (Tables 8.4.2 and 8.4.3). As noted in Table 8.4.1, the phosphate concentration (0.37 mg/L) exceeded the applicable standard (4.0×10^{-4} mg/L) during this sampling event. A dissolved zinc concentration of 0.0091 mg/L was also reported or OW-11, which is well below the standard of 10 mg/L.
- No organic compounds were detected in OW-11 in 2016 (Table 8.4.4).

6.5 CONSTITUENT LEVES IN GROUP E MONITORING WELLS

To date, a total of 44 monitoring wells (MKTF-1 through MKTF-44) have been installed to aid in delineating the extent of a hydrocarbon seep discovered in 2013, directly west of crude tanks T-101 and T102. During the investigation, a pre-existing well (labeled as MKTF-45) was found directly west of the truck-loading rack. Each of the wells has been constructed into permanent monitoring wells, and these wells are designated as Group E wells.

6.6 CONSTITUENT LEVELS FOR MKTF WELLS

In 2016, groundwater samples were collected from the MKTF wells and evaluated for the following analytes: BTEX, MTBE, DRO, GRO, MRO, major cations/anions, metals, VOCs, and SVOCs. Wells that had a hydrocarbon layer were not sampled.

- During the first quarter 2016, SPH was detected in wells MKTF-03 (0.10'), MKTF-05 (0.60'), MKTF-06 (0.97'), MKTF-07 (2.88'), MKTF-08 (0.75'), MKTF-12 (0.65'), MKTF-13 (0.87') MKTF-14 (0.44'), MKTF-15 (0.17'), MKTF-36 (0.06'), MKTF-37 (0.04'), and MKTF-45 (0.18'). During the second quarter 2016, SPH was detected in wells MKTF-01 (1.16'), MKTF-03 (4.28'), MKTF-05 (0.53), MKTF-06 (0.94'), MKTF-07 (2.59'), MKTF-08 (0.70'), MKTF-12 (1.32'), MKTF-13 (1.20') MKTF-14 (2.33'), MKTF-15 (0.22'), MKTF-36 (0.02'), MKTF-37 (0.02'), and MKTF-45 (0.32'). In the third quarter of 2016, SPH was detected in wells MKTF-01 (1.50'), MKTF-03 (2.40'), MKTF-05 (3.04'), MKTF-06 (1.08'), MKTF-07 (2.41'), MKTF-08 (0.66'), MKTF-12 (0.32'), MKTF-13 (0.98'), MKTF-14 (1.69'), MKTF-23 (0.11'), MKTF-26 (1.37'), MKTF-36 (0.01'), and MKTF-45 (0.45'). During the fourth quarter 2016, SPH was detected in wells MKTF-01 (1.35'), MKTF-03 (1.10'), MKTF-05 (0.84'), MKTF-06 (0.74'), MKTF-07 (1.98'), MKTF-08 (1.48'), MKTF-12 (0.29'), MKTF-13 (0.96'), MKTF-14 (1.10'), MKTF-23 (0.12'), MKTF-26 (1.39'), and MKTF-45 (0.43').

- During 2016, benzene concentrations exceeded the standard of 0.005 mg/L in the following wells: MKTF-1, MKTF-2, MKTF-4, MKTF-9, MKTF-10, MKTF-11, MKTF-15 through MKTF-26, MKTF-35, MKTF-36, MKTF=37 and MKTF-39. The greatest benzene concentration (23 mg/L) during 2016 occurred in well MKTF-15 during quarter three (Table 8.17).

- Toluene concentrations exceeded the standard of 0.75 mg/L in the following wells: MKTF-1, MKTF-10, MKTF-11, MKTF-15, and MKTF-23. The highest toluene concentration (23 mg/L) occurred in well MKTF-10 in the first quarter 2016. (Table 8.17).

- Ethylbenzene concentrations exceeded the standard of 0.7 mg/L in the following wells: MKTF-1, MKTF-4, MKTF-10, MKTF-36, MKTF-15, MKTF-16, MKTF-19 and MKTF-20. The highest concentration (2.1 mg/L) occurred in MKTF-15 during the fourth quarters of 2016. (Table 8.17).

- Total xylenes concentrations exceeded the standard of 0.62 mg/L in the following wells: MKTF-1, MKTF-4, MKTF-10, MKTF-11, MKTF-15, MKTF-16, MKTF-19 MKTF-20, MKTF-21, MKTF-23, and MKTF-37. The highest concentration (9.2 mg/L) occurred in well MKTF-20 in the first and fourth quarters 2016. (Table 8.17).

- MTBE concentrations exceeded the standard of 0.143 mg/L in the following wells: MKTF-1, MKTF-2, MKTF-4, MKTF-9, MKTF-16, MKTF-17, and MKTF-19 through MKTF-25, MKTF-32, MKTF-33, and MKTF-36. The highest concentration (10.0 mg/L) occurred in well MKTF-19 in the fourth quarter 2016 (Table 8.17).

- The constituent DRO and GRO was detected in MKTF-1 through MKTF-25, MKTF-35, MKTF-36, MKTF-37, MKTF-39 and MKTF-42. GRO was also detected in MKTF-26, through MKTF-35, MKTF-38, MKTF-43, and MKTF-44. There were no detectable concentrations of MRO in any of the MKTF wells. (Table 8.17.1).

- Chloride concentration exceedances above the standard (250 mg/L) were found in the following wells: MKTF-1, MKTF-2, MKTF-10, MKTF-11, MKTF-15, MKTF-16, MKTF-20, MKTF-24, MKTF-25, MKTF-26, MKTF-27, MKTF-28, MKTF-30, MKTF-31, MKTF-32, MKTF-34, MKTF-38, MKTF-39, MKTF-40, MKTF-41, MKTF-42, MKTF-43, and MKTF-44. (Table 8.17.1).

- The fluoride standard of 1.6 mg/L was narrowly exceeded in wells MKTF-2 (1.8 to 2.7 mg/L) and

MKTF-20 (2.1 to 3.1 mg/L) in 2016.

- The nitrate standard of 10 mg/L was exceeded in MKTF-34 (18 mg/L) and MKTF-43 (62 mg/L). Although each well only exceeded the standard in one quarter of the year, it represents the first exceedance of nitrate for either well.

- Sulfate exceeded the standard of 600 mg/l in the first and second quarters of 2016 at MKTF-29 and in all quarterly samples collected at MKTF-43.

- Total metals above applicable standards were detected in the following wells:: Table 8.17.2):
    - Arsenic (0.01 mg/L): MKTF-11, MKTF-16, MKTF-19, MKTF-20, MKTF-21, MKTF-23, MKTF-24, MKTF-36, MKTF-43 and MKTF-44.
    - Barium (1.0 mg/L): MKTF-1, MKTF-4, MKTF-10, MKTF-11, MKTF-15, MKTF-16, MKTF-18, MKTF-19, MKTF-20, MTKF-21, MKTF-22, MKTF-24, MKTF-25, MKTF-33, MKTF-35, MKTF-36, MKTF-39.
    - Chromium (0.05 mg/L): MKTF-24
    - Iron (1.0 mg/L): MKTF-1 through MKTF-44.
    - Lead (0.015 mg/L): MKTF-19, MKTF-22, MKTF-24, MKTF-25, MKTF-26, MKTF-30, MKTF-35, MKTF-40, and MKTF-44.
    - Manganese (0.2 mg/L): All wells with the exception of MKTF-34.Selenium (0.05 mg/L): MKTF-43.

- Dissolved metals concentrations above applicable standards were noted in the following wells (Table 8.17.3):
    - Arsenic: MKTF-4, MKTF-11, MKTF-16, MKTF-19, MKTF-20, MKTF-21, MKTF-36, and MKTF-43.
    - Barium: MKTF-1, MKTF-4, MKTF-10, MKTF-11, MKTF-15, MKTF-16, MKTF-18, MKTF-19, MKTF-20, MKTF-21, MKTF-22, MKTF-36, and MKTF-39.
    - Iron: MKTF-1, MKTF-4, MKTF-9, MKTF-10, MKTF-11, MKTF-15, MKTF-16, MKTF-18, MKTF-19, MKTF-20, MKTF-21, MKTF-22, MKTF-23, MKTF-35, MKTF- 36, and MKTF-39.
    - Manganese: All wells with the exception of MKTF-28, MKTF-30, MKTF-31, MKTF-32, MKTF-33, and MKTF-34, MKTF-40, MKTF-41 and MKTF-44.
    - Selenium: Wells MKTF-41 (0.06 mg/L) and MKTF-43 (0.091) exceeded the groundwater protection standard in 2016.

Fourteen semi volatile organic compounds were detected that exceeded applicable standards in 2016 and are listed as follows: See Table 8.17.4 for the complete list.

- Aniline
- Benz(a)anthracene
- Bis(2-ethylhexyl)phthalate
- Butylbenzenephthalate
- 2,4 dimethylphenol
- Fluorene
- 1-methyl naphthalene
- 2-methylnaphthalene
- 2-methylphenol
- 3+4-methylphenol
- Naphthalene
- Pentachlorophenol
- Phenanthrene
- Phenol

Fifteen volatile organic compounds were detected in the MKTF wells in 2016 at concentration levels above the applicable standards and are listed as follows: See Table 8.17.5 for the complete list.

- 1,2,4-trimethylbenzene
- 1,3,5-trimethylbenzene
- 1,2-dichloroethane (EDC)
- 1-methylnaphthalene
- Bromomethane
- Cis1,2-DCE
- 1,1-Dichloroethane
- 1,1-Dichloroethene
- 2-Hexanone
- Methylene chloride
- Methyl Naphthalene
- Naphthalene
- Tetrachloroethene (PCE)
- 1,1,1-Trichloroethane
- Trichloroethene (TCE)
- Vinyl Chloride

6.7 CONSTITUENT LEVELS FOR EVAPORATION PONDS, INFLUENTS, AND EFFLUENTS

There are eleven evaporation ponds located within the northwest section of the refinery. Evaporation pond 1 is more commonly known as Pond 1 and is considered separate from the remaining SMWU No. 2 Evaporation Ponds. Pond 1, which is out of service, is separated by a dike along the north side of aeration lagoon 1 (AL-1) and aeration lagoon 2 (AL-2), and was used as a holding pond for the aeration lagoons. Evaporation ponds 2 through 6 are separated by dikes and are located west of AL-2. Evaporation pond 9 (EP-9) is to the south and is separated from EP-2 through EP-6 by a two-track road. Evaporation ponds 7, 8, 11, 12A, and 12B are also separated by dikes and are located on the northwest corner of the refinery. In addition to the evaporation ponds, there is one effluent points that is routinely monitored.

6.7.1 EVAPORATION PONDS 1 THROUGH 12B

Samples have been collected annually from Pond 1 and EP-2 through EP-8 since 2007. In 2011, EP-9, EP-11, EP-12A, and EP-12B were added to the sample list, per the 2010 FWGWMP, and the sample frequency was increased to semi-annually for all of the ponds. Pond 1 is no longer in service.

In 2016, samples were collected from the evaporation ponds for the following analytes: BTEX, MTBE, major anions/cations, biochemical oxygen demand (BOD), chemical oxygen demand (COD), e-coli bacteria, WQCC total and dissolved metals, and VOCs and SVOCs. EP-2 through EP-9, EP-11, EP-12A, and EP-

12B were sampled in 2016 on the following dates:

SAMPLE LOCATION	DATE	DATE
Ponds 2 – 12B	3/8/16	8/29/16

- Benzene was detected above the applicable standard of 0.005 mg/L in evaporation ponds (EP-2 and EP-3) in 2016. Benzene concentrations below the applicable standard were detected in EP-4, EP-5 and EP-12. Toluene, ethylbenzene, and total xylenes have been detected at concentration levels below applicable standards in the following evaporation ponds: EP-2, EP-3, EP-4 and EP-12B. (Table 8.15).

- Concentrations of fluoride, chloride, and sulfates exceeded the applicable WQCC standards in each evaporation pond during 2016 (Table 8.15). In 2016, BOD concentrations exceeded the general requirement of the 20 NMAC 6.2.3103 (<30 mg/L) in each of the evaporation ponds except for EP-8 and EP-11. COD concentrations exceeded the general requirement (<125 mg/L) in each of the ponds.

- E-coli bacteria counts above the standard of 500 organisms per 100 ml of water were encountered in EP-2, EP-3, EP-4, EP-12A and EP-12B. Andeavor is unaware of any untreated wastewater that would carry this indicator organism being discharged into the evaporation ponds but will further investigate this occurrence. It is worth noting that a study published in 2006 (Ishii, S., Ksoll, WB, Hicks, RE, and Sadowsky, MJ; Presence and Growth of Naturalized Escherichia coli in Temperate Soils from Lake Superior Watershed; PubMed.gov; Jan. 2006; 72(1), pgs. 612-621) identified e-coli bacteria that occurred naturally in the soils and would seem to make the use of e-coli as an indicator organism of limited use. The publication states: “The presence of Escherichia coli in water is used as an indicator of fecal contamination, but recent reports indicate that soil populations can also be detected in tropical, subtropical, and some temperate environments. The presence of significant populations of naturalized populations of E. coli in temperate soils may confound the use of this bacterium as an indicator of fecal contamination.” Since the evaporation ponds are unlined, earthen structures, it may be possible that the e-coli bacteria are not a good indicator of fecal contamination.

- Metals (total and dissolved): Arsenic, iron, manganese and selenium have been detected in several of the evaporation ponds in 2016 above the WQCC and EPA MCL listed standards. See Table 8.15.2 for a complete list.

- The constituent bromomethane was detected in EP-3, EP-12A and EP-12B above the NMED Tap Water standard of 0.00754 mg/L in 2016. See Table 8.15.4 for the complete list.

- Two SVOCs were detected exceeding the applicable standards in the following evaporation ponds in 2016: EP-2, EP-3, EP-4, EP-12A and EP-12B = bis (2-ethylhexyl)phthalate and Phenol in EP-2, EP-3, EP-4, EP-5, EP-6 and EP-12B. See Table 8.15.5 for the complete list.

- Four SVOCs were also detected exceeding applicable standards in EP-8 and are listed as follows: Ben(a)anthracene, benzo(a)pyrene, Benzo(b)fluoranthene and indeno(1,2,3-cd)pyrene. See table 8.15.5 for a complete list of VOCs.

6.7.2 INFLUENTS: AL-1, AL-2, AND EP-1

The start-up of the new WWTP occurred in May 2012. By the end of June 2012, all of the processed water going into AL-1 was re-routed to the WWTP, via Tank 35 and the NAPIS unit, with the exception of the Pilot lift station. Some gravitational flow continued from AL-1 to AL-2 and from AL-2 to Pond 1 (EP-1) through

the second half of 2013.

The aeration lagoons and pond 1 are no longer in service and no samples were collected in 2016.

6.7.3 EFFLUENTS: AL-2 TO EP-1, PILOT, AND NAPIS

All effluents have been non-existent since June 2013 due to re-routing waters to the WWTP. The last effluent sample from AL-2 was in June 2013. The Pilot effluent was rerouted in June 2013 while the NAPIS unit was re-routed mid-June 2012. No effluent analyses are available for 2016.

6.7.4 OUTFALL BW TO EP-2

BW is defined as reverse osmosis water coming from the boiler unit. The flow from the boiler unit discharges into EP-2 through a 4-inch PVC pipe. The reverse osmosis water no longer discharges to EP-2 and has been rerouted back into the units for reuse. No samples were collected in 2016.

6.7.5 OUTFALL STP1 to EP-2 Inlet

The EP-2 Inlet designation was changed to STP1 to EP-2 in the second half of 2012 due to the startup of the new WWTP and the new sanitary treatment pond (STP-1). STP-1 effluent now flows into the northeast corner of EP-2. Sampling of STP1 to EP-2 inlet was changed to quarterly beginning the second quarter of 2016 per NMED directive dated May 18, 2016, and sampled for the following analytes: BTEX, MTBE, VOCs, GRO, DRO, MRO, BOD, COD, and TDS.

- No BTEX and MTBE constituents were detected in all of 2016. DRO was detected in all of 2016 and GRO was detected in the third quarter. MRO was not detected. The TDS concentrations exceeded the standard of 1,000 mg/L in the second, third, and fourth quarter of 2016. (Table 8.16).
- BOD and COD concentrations exceeded the applicable standards in 2016 (Tables 8.16.1).
- Three organic compounds were detected in 2016: (Acetone, 2-Butanone, Carbon Disulfide) all at concentrations below the applicable standards No other VOCs were detected in 2016 (Tables 8.16.2).

6.8 ADDITIONAL SAMPLING AND/OR CHANGES

Requirements by NMED per directive dated May 18, 2016 (HWB-WRG-14-006)

- The permittee must sample PW-4 during the next scheduled sampling event and then semi-annually thereafter;

- Since EDC is a lead scavenger, the Permittee must add analysis for 1,2-Dibromethane (EDB) in all monitoring wells where EDC has been detected.

- Permittee must include analysis for MTBE, EDC and EDB at OW-1 starting with the next round of quarterly sampling.

- The Permittee must sample the EP-2 inlet on a quarterly basis

- The Permittee may discontinue analysis for uranium in all wells

- The Permittee must edit Table 1 to remove the statement "[a]ll wells including Recovery Wells."

- Permittee must submit a work plan and/or additional information for the following:
    - The Permittee must prepare a work plan for installation of a replacement well and propose to properly abandon OW-1.

    - Additionally, the Permittee must submit a work plan to propose additional wells downgradient of the Evaporation Ponds per OCD's requirement (Comment 8).

SECTION 7

CONCLUSIONS AND RECOMMENDATIONS

This section is an overview of the analytical water quality data collected to identify potential impacts to the groundwater and determine if further monitoring or site investigations are required.

7.1 GROUP A

The boundary wells (BW-1A, BW-1B, BW-1C, BW-2A, BW-2B, BW-2C, BW-3A, BW-3B, and BW-3C) located in the northwest corner of the refinery along the west sides of evaporation ponds 7, 8 and 11 have not shown any detection of BTEX or MTBE constituents during annual sampling events. Three of the nine wells (BW-1A, BW-1B, and BW-3A) continue to indicate no water level since their original installation in 2003 and 2004. Fluoride concentrations were detected above WQCC standards in BW-1C, BW-2B, and BW-2C, which may be naturally occurring in the groundwater. No VOCs were detected in any of the BW wells in 2016. SVOC analytical requirement was discontinued from the BW annual sampling event per approval from NMED dated July 24, 2015.

RECOMMENDATION: *Continue with current monitoring schedule. There have been no significant changes or discoveries of contaminants that warrant any changes.*

The MW (MW-1, MW-2, MW-4, and MW-5) series of wells are located around the RCRA LTU. No detectable concentration levels of BTEX or MTBE constituents have been found in the groundwater samples collected from these wells. No metals (total or dissolved) exceeded the applicable standards; however, very low concentrations of arsenic, barium, lead, manganese, selenium and mercury were detected in most of the MW series of wells. There were five organic compounds detected in the MW wells at low concentration levels below applicable standards (bis (2-ethylhexyl)phthalate, benzoic acid, d-n-octylphthalate, dimethylphthalate and pyrene. These wells are also monitored under the RCRA Post Closure Permit on a 10-year cycle. The first cycle was completed in 2009/2010.

RECOMMENDATION: *Continue with current monitoring schedule and the RCRA 10 year monitoring.*

The SMW (SMW-2, SMW-4) wells are also located around the RCRA LTU and are screened in the Chinle/Alluvium Interface stratigraphic unit. These wells are also monitored under the RCRA Post-Closure Permit on a 10-year cycle. The first cycle was completed in 2009/2010. No detectable concentration levels of BTEX constituents were found in these wells from 2006 through 2016. MTBE was detected in SMW-2 at concentration levels below the NMED Tap Water standard of 0.143 mg/L. SMW-2 also had elevated chloride and sulfate levels, and manganese was detected exceeding the WQCC standard in both SMW-2 and SMW-4. Five organic constituents were detected at concentration levels below the applicable standards in 2016. (Benzoic acid, bis(2-ethylhexyl)phthalate, di-n-octylphthalate, dimethylphthalate, and pyrene).

RECOMMENDATION: *Continue with current monitoring schedule and the RCRA 10 year monitoring.*

7.2 GROUP B– GROUNDWATER MONITORING

GWM-1 contained SPH throughout 2016 and was not sampled. There was an insufficient volume of water in GWM-2 during the fourth quarter of 2013 for sample collection, and the well was reported dry for all of 2014 and 2016. GWM-3 was dry during 2013, 2014 and 2016.

RECOMMENDATION: *Continue with current monitoring schedule. There have been no significant changes or discoveries of contaminants that warrant any changes.*

The GWM wells located at the aeration lagoons were not sampled in 2016. GWM-2 and GWM-3 had no detection of a water level since 2014 through 2016. In the fourth quarter 2015, an SPH level was detected in GWM-1 and in all of 2016 and no ground water samples were collected. Wells continue to be checked on a quarterly basis.

RECOMMENDATION: *Continue with current inspection schedule. Monitor GWM-1 on a more regular basis: gauging water/SPH level, purge dry to check for recharge rate and monitor level of SPH after each purge.*

In 2016 well NAPIS-1 recorded detectable concentrations of MTBE for the first time. However, the detected concentrations were below applicable standards, fluctuating from 0.002 mg/L to a low of 0.00087 mg/L. No changes in NAPIS-2, NAPIS-3 or KA-3, continued detection of Benzene and MTBE. Fluoride and chloride continue to be detected in NAPIS-1, NAPIS-2 and NAPIS-3 and KA-3. However, the applicable water quality standards for fluoride and chloride were exceeded only in wells NAPIS-2 and NAPIS-3. Metals (total and dissolved) continue to be detected in all of the wells through 2016. Metals that were detected in various wells at concentrations above the applicable cleanup standard included iron, manganese, and uranium. Arsenic, selenium, and zinc were present at concentrations below applicable regulatory standards. No samples were collected for SVOC analysis from the NAPIS or KA-3 wells. This was due to the contract sampler not using the updated sampling schedule. The collection of samples for SVOC analysis will resume in the third quarter of 2018. No VOCs were detected in NAPIS-1 above screening levels; 14 VOCs were detected in NAPIS-2 all at concentration levels below applicable standards, except 1-methylnaphthalene and naphthalene. Twelve VOCs were detected in NAPIS-3 at concentration levels below applicable standards and only 1-methylnaphthalene was detected above screening levels. In KA-3 ten VOCs were detected. Most were at concentration levels below applicable standards, however, 1-methylnaphthalene and naphthalene were detected at concentrations above applicable standards

RECOMMENDATION: *Continue with current inspection schedule. No changes required.*

There are three leak detection units on the NAPIS Unit which are inspected for fluid level. Quarterly inspections of the units have indicated the continued presence of fluids in the East LDU and West LDU. The Oil Sump LDU has not had any detection of fluid since the second half of 2013. Both LDUs continue to be pumped on a regular basis. The East Bay of the LDU was out of service and closed in 2015. The presence of water in the East LDU during that period suggests that there may be an inflow through an opening in the liner. Andeavor intends to conduct testing on the LDU to ascertain the source of the water in the East LDU. Recent water column measurements on the West LDU also indicate that the bay is leaking into the LDU, or that there is a source of inflow into the LDU Plans are to inspect the east bay, place it back in service and then take the west bay out of service for inspection.

RECOMMENDATION: *Continue with current inspection schedule. No changes required.*

A new well was installed on July 17, 2012, designated as OAPIS-1. The installation of this well is from a site investigation conducted according to the Investigation Work Plan Solid Waste Management Unit (SMWU)

No. 1 Aeration Basin and SMWU No. 14 Old API Separator. No significant deviations from past analytical with the exception of cyanide detected in the fourth quarter at a concentration level (0.504 mg/L) above the WQCC standard of 0.2 mg/L.. The source of the cyanide is uncertain as it is not a feedstock used by the refinery in any of its processes.

RECOMMENDATION: *Continue with current inspection schedule. No changes required.*

7.3 GROUP C – GROUNDWATER MONITORING

Groundwater monitoring activities from the Group C wells (northeast side of the Refinery) have shown that an MTBE plume exists in the area of OW-13, OW-14, OW-29, and OW-30. In March of 2010, dedicated pumps were installed in all four wells to prevent possible cross contamination from sampling equipment and or field activities. Although concentration levels of MTBE in OW-13 does not exceed the applicable standard of 0.143 mg/L, sample data indicates a steady increase of MTBE from year to year. Of the four wells OW-14 is the only well where two constituents (benzene and MTBE) have been consistently detected in the groundwater samples collected since 2006 that have exceeded the applicable standards. These two constituents continued to increase from year to year through 2016. OW-14 is located down-gradient from two recovery wells RW-1 and RW-2. RW-1 is the only well where hydrocarbons are continually recovered.

Downgradient from OW-14 is OW-29 and OW-30 and the analytical data from both of these wells indicates that MTBE is present in the groundwater at concentration levels exceeding the NMED Tap Water standard of 0.143 mg/L since March of 2010 in OW-29 and December 2007 in OW-30. Analytical data for these four wells indicate a steady increase of MTBE concentration levels indicating that the MTBE plume is slowly migrating in a northerly direction down-gradient from RW-1 and RW-2. The stratigraphic units in which these wells are screened is the Chinle/Alluvium Interface.

RECOMMENDATION: *An investigation work plan was initiated concerning OW-14 contaminant plume migration. Additional soil borings and wells were installed in the tank farm area and results are being evaluated. Continue with current sampling requirements. No changes required.*

Two new wells (OW-50 and OW-52) were installed in October 2009 downgradient of OW-13, OW-14 and OW-29 to monitor possible migration of MTBE in a north, north-east direction. No detectable concentration levels of BTEX or MTBE constituents were detected in OW-50 and OW-52 through 2015, however, during the annual sampling event in 2016, MTBE was detected in low concentrations in both OW-50 and OW-52 and 1,2-dichloroethane (EDC) was also detected in both wells at concentration levels below the applicable

standard of 0.005 mg/L.

RECOMMENDATION: *Due to the detection of MTBE and EDC in wells OW-50 and OW-52, sampling frequency for these wells will be changed to a quarterly basis. This will also be noted in the Facility Wide Groundwater Sampling Work Plan. Both MTBE and EDC will be added to the analytical requirements for each well. Analysis for EDC will be conducted using EPA Method 8011.*

The inspection of the four recovery wells (RW-1, RW-2, RW-5 and RW-6) will continue as scheduled along with SPH recovery. No changes in product recovery are required and will continue with scheduled quarterly inspections. Product recovery continues in RW-1 as there is a measureable hydrocarbon column thickness. Field notes indicate that although the SPH thickness level in RW-1 has generally increased since the first quarter of 2013, hydrocarbon recovery has shown a general decrease from 2005 through 2016. Total hydrocarbon recovery is estimated at 8.5 gallons for 2016 compared to 431 gallons in 2005. Hydrocarbon recovery is done only during quarterly inspections because of the decline in hydrocarbons observed in the well when it first began in 2005 when the well was continuously pumped. Additional information regarding characteristics of RW-1 will be collected during field work from the approved Work Plan for investigation at OW-14. RW-5 and RW-6 product recovery has also been declining. From 2010 through 2016, no product has been recovered from RW-5 and no product was recovered from RW-6 from 2012 to 2016. Although there is no measureable product level in RW-5 and RW-6, both wells will continue to be bailed as there is evidence of hydrocarbons in the wells from observing the bailed water (slight odor with a visible sheen).

RECOMMENDATION: *Continue with current inspection/sampling schedule. No changes required.*

7.4 GROUP D – GROUNDWATER MONITORING

PW-2, PW-3 and PW-4 are all process/production wells that are all set at around 1000 feet. All three of these wells are sampled every three years with the exception of PW-3 which was changed to annual in 2009 due to the detection of 2-methylnaphthalene in January 2008. Although the samples collected in August 2008 were all non-detect, it was determined by NMED that annual sampling was required for PW-3. PW-4 was switched to semi-annual sampling in the second half of 2016 per NMED directive (HWB-WRG-14-06) due to the detection of VOCs. In 2016 10 VOCs were detected at low concentration levels below the applicable standards. PW-2 remains on a three-year sample event and next scheduled sample date for PW-2 is 2017.

RECOMMENDATION: *Continue with current inspection/sampling schedule. No changes required.*

OW-1 is a flowing artesian well located on the west section of the refinery property. Historically, OW-1 is a relatively clean well; however, very low concentrations of benzene, toluene, total xylenes, and MTBE were detected for the first time in the fourth quarter of 2015. Only MTBE continued to be detected throughout 2016.

OW-10 is completed in the Sonsela Aquifer and is located directly east of evaporation pond 9 (EP-9). No BTEX constituents were detected in all of 2016 in OW-10 with the exception of MTBE at concentrations below the applicable standard of 0.143 mg/L. Due to the detection of MTBE in OW-10, NMED and OCD has requested that an additional boundary monitoring well be installed. Four organic compounds were detected in 2016: 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane (EDC) and cis-1,2-DCE, all at concentration levels below the applicable standards.

RECOMMENDATION: *Continue with current inspection/sampling schedule. No changes required.*

Observation well OW-11 is located within the refinery property (southeast) on the west side of the main entrance and OW-12 is located within the surplus yard located west and slightly north of the primary tank farm. OW-11 and OW-12 are screened in the Sonsela stratigraphic unit. There was no detection of BTEX, MTBE, GRO/DRO/MRO or VOC constituents in 2016. Fluoride and sulfate were detected above screening levels in OW-11, which is an up-gradient background monitoring well.

RECOMMENDATIONS: *Continue with current sampling schedule.*

7.5 GROUP E – GROUNDWATER MONITORING

To date, a total of 44 permanent monitoring wells (MKTF-1 through MKTF-44) have been installed to aid in delineating the extent of a hydrocarbon seep discovered in 2013, directly west of crude tanks T-101 and T-102. During the investigation, a pre-existing well (labeled as MKTF-45) was found directly west of the truck-loading rack. The MKTF wells are sampled quarterly. BTEX, MTBE, DRO, GRO, total and dissolved metals, and several VOCs and SVOCs have been detected in many of the wells above the referenced standards. Of the 44 wells installed, fourteen MKTF wells have been identified having an SPH level.

RECOMMENDATIONS: *Continue with current sampling schedule in 2017. This will establish a clear baseline of at least three years of quarterly monitoring in most MKTF wells. It is recommended to reduce the monitoring frequency in 2018, as many of the analytical results indicate little change over the monitoring period, such that continued quarterly monitoring is not warranted. At the wells identified as having an SPH level, begin a routine hydrocarbon recovery effort to evaluate recharge rate and record volumes of water and SPH recovered. Continue on-going recovery at existing sumps.*

7.6 ADDITIONAL MONITORING

- Continue with the sampling requirements of the most current approved Facility Wide Groundwater Monitoring Work Plan.
- In order to prevent duplication and potential conflict of documentation, recommendations and/or changes to monitoring requirements will be included in future investigation work plans.
- Submit the Annual Groundwater Monitoring Report on or before September 1 of every year.
- Submit recommendations to change or modify sampling requirements as needed.
- Conduct site assessments as required when spills/leaks are discovered.

SECTION 8

DATA TABLES

8.1 BW-1A/B/C, BW-2A/B/C, BW-3A/B/C
8.2 MW-1, MW-2, MW-4, MW-5
8.3 SMW-2, SMW-4
8.4 OW-11, OW-12
8.5 OW-50, OW-52
8.6 PW-2, PW-3, PW-4
8.7 GWM-1, GWM-2, GWM-3
8.8 NAPIS-1, NAPIS-2, NAPIS-3, KA-3
8.9 OAPIS-1
8.10 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)
8.11 RW-1, RW-2, RW-5, RW-6
8.12 OW-1, OW-10
8.13 OW-13, OW-14, OW-29, OW-30
8.14 STP-1NW and STP-1SW
8.15 EVAPORATION PONDS 1 - 12B
8.16 STP-1 to EP-2
8-17 MKTF-1 thru MKTF-45

COMPLETE DATA TABLES ON ATTACHED CD.

8.1 BW-1C, BW-2A, BW-2B, BW-2C, BW-3B, BW-3C
BTEX Analytical Result Summary

STANDARDS			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED TAP WATER (JUL 2015)			0.00454	1.1	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
WELL ID	**DATE SAMPLED**	**METHOD**					
BW-1C	9/8/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/12/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/10/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/9/2013	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/24/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/28/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-2A	9/8/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/12/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/9/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/9/2013	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/24/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/28/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-2B	9/8/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/12/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/9/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/9/2013	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/24/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/28/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-2C	9/8/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/12/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/10/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/9/2013	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/24/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/28/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-3B	9/8/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/12/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/10/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/9/2013	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/23/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/28/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-3C	9/8/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/12/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/10/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/9/2013	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/23/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/28/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001

DEFINITIONS
NE = Not established
NA = Not analyzed
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1 (Dec 2014)

NOTES

8.1.1 BW-1C, BW-2A, BW-2B, BW-2C, BW-3B, BW-3C
General Chemistry Analytical Result Summary

STANDARDS			Parameters										
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	NE	NE	**10**	NE	**600.0**	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	NE	**10.0**	10	NE	NE	NE	NE	NE
NMED TAP WATER (JUL 2015)			1.18	NE	NE	1.97	31.6	NE	NE	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			0.8	NE	NE	2	32	**4.0E-04**	NE	NE	NE	NE
Well ID	**DATE SAMPLED**	**METHOD**										
BW-1C	9/8/2016	300.0/8015D	**2.4**	32	0.12	<1.0	<1.0	**0.36**	240	<1.0	<0.05	<5.0
	8/12/2015	300.0/8015D	**2.5**	33	<0.1	<0.1	<0.1	<0.5	250	<1.0	<0.05	<5.0
	9/10/2014	300.0	**2.6**	33	0.12	<1.0	<1.0	<0.5	260			
	9/9/2013	300.0	**2.1**	34	<0.1	**14**	**14**	<0.5	260			
	8/24/2012	300.0	**2.3**	34	<0.1	<1.0	<1.0	<0.5	260			
	10/28/2011	300.0	**2.6**	33	<0.1	1.7	1.7	<0.5	260			
	7/20/2010	300.0	**2.7**	37	0.11	<1.0	<1.0	<0.5	290			
BW-2A	9/8/2016	300.0/8015D	0.98	36	0.42	<1.0	<1.0	**0.94**	7.3	<1.0	<0.05	<5.0
	8/12/2015	300.0/8015D	1.1	36	0.2	<1.0	<1.0	**0.72**	7.3	<1.0	<0.05	<5.0
	9/9/2014	300.0	1.1	37	0.4	<1.0	<1.0	**0.57**	7.1			
	9/9/2013	300.0	0.9	37	0.39	3.5	3.5	<0.5	7.2			
	8/24/2012	300.0	0.95	38	0.54	<1.0	<1.0	<0.5	6.8			
	10/28/2011	300.0	1.1	37	0.36	<1.0	<1.0	**0.58**	7.0			
	7/20/2010	300.0	1.2	42	0.43	<1.0	<1.0	**0.68**	7.1			
BW-2B	9/8/2016	300.0/8015D	1.5	30	0.7	<1.0	<1.0	<0.5	170	<1.0	<0.05	<5.0
	8/12/2015	300.0/8015D	**1.8**	29	0.14	1.5	1.5	<0.5	160	<1.0	<0.05	<5.0
	9/9/2014	300.0	1.6	29	0.43	<1.0	<1.0	<0.5	160			
	9/9/2013	300.0	**1.7**	28	0.14	**33**	**33**	<0.5	150			
	8/24/2012	300.0	1.3	27	0.22	1.4	1.4	<0.5	150			
	10/28/2011	300.0	1.6	27	0.75	<1.0	<1.0	<0.5	140			
	7/20/2010	300.0	**1.8**	32	0.82	<1.0	<1.0	<0.5	160			
BW-2C	9/8/2016	300.0/8015D	**1.9**	42	0.098	<1.0	<1.0	<0.5	270	<1.0	<0.05	<5.0
	8/12/2015	300.0/8015D	**1.9**	42	0.11	<1.0	<1.0	<0.5	270	<1.0	<0.05	<5.0
	9/10/2014	300.0	**2.0**	42	0.11	<1.0	<1.0	<0.5	260			
	9/9/2013	300.0	1.6	43	<0.1	**37**	**37**	<0.5	270			
	8/24/2012	300.0	**2.0**	41	<0.5	<1.0	<1.0	<2.5	270			
	10/28/2011	300.0	**2.0**	43	<0.1	<1.0	<1.0	<0.5	280			
	7/20/2010	300.0	**2.1**	62	0.12	<1.0	<1.0	<0.5	310			
BW-3B	9/8/2016	300.0/8015D	1.2	30	0.41	<1.0	<1.0	**1.3**	50	<1.0	<0.05	<5.0
	8/12/2015	300.0/8015D	1.3	31	0.18	<1.0	<1.0	**1.1**	46	<1.0	<0.05	<5.0
	9/10/2014	300.0	1.6	35	0.44	<1.0	<1.0	**1.0**	54			
	9/9/2013	300.0	1.1	30	0.36	**11**	**11**	**0.87**	45			
	8/23/2012	300.0	1.2	33	0.39	<1.0	<1.0	**0.82**	46			
	10/28/2011	300.0	1.3	28	0.31	<1.0	<1.0	**0.84**	48			
	7/20/2010	300.0	1.4	33	0.42	<0.01	<0.01	**1.1**	54			
BW-3C	9/8/2016	300.0/8015D	1.3	35	0.12	<1.0	<1.0	<0.5	330	<1.0	<0.05	<5.0
	8/12/2015	300.0/8015D	1.3	36	0.12	<1.0	<1.0	<0.5	340	<1.0	<0.05	<5.0
	9/10/2014	300.0	1.3	35	0.14	<1.0	<1.0	<0.5	300			
	9/9/2013	300.0	1.0	35	<0.1	<1.0	<1.0	<0.5	320			
	8/23/2012	300.0	1.1	38	0.11	<1.0	<1.0	<0.5	310			
	10/28/2011	300.0	1.4	35	<0.1	<1.0	<1.0	<0.5	320			
	7/20/2010	300.0	1.4	41	0.12	<0.1	0.12	<0.5	380			

DEFINITIONS
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STANDARDS
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a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1 (Dec 2014)

NOTES
8015D analysis added to plan in 2015 per NMED Comment 7(b), Approval with Modification, FWGWMWP - 2012 Updates; 2013 Updates; 2014 Updates for 2015.

8.1.2 BW-1C, BW-2A, BW-2B, BW-2C, BW-3B, BW-3C
Total Metals Analytical Result Summary

STANDARDS			Parameters										
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	0.002	0.03	NE
NMED TAP WATER (DEC 2014)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.4	9.2E-03	NE	0.8	14	0.015	0.43	0.1	6.3E-04	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**												
BW-1C	9/8/2016	200.7/200.8	4.4E-04	0.022	<0.002	3.6E-03	<0.006	0.089	<0.0005	0.014	5.5E-04	1.1E-04	0.008	<0.01
	8/12/2015	200.7/200.8	<0.001	0.044	<0.002	7.3E-03	<0.006	0.36	5.1E-04	0.049	<0.001	<0.0002	0.01	<0.01
	9/10/2014	200.7/200.8	<0.001	0.026	<0.002	<0.006	<0.006	0.43	<0.001	0.028	<0.001	<0.0002	9.9E-03	<0.01
	9/9/2013	200.7/200.8	<0.001	0.027	<0.002	0.018	<0.006	0.4	<0.001	0.025	<0.001	<0.0002	0.006	<0.01
	8/24/2012	200.7/200.8	<0.0025	0.028	<0.002	**0.22**	6.2E-03	0.49	<0.005	0.068	<0.0025	<0.0002	5.2E-03	0.011
	10/28/2011	200.7/200.8	<0.0025	0.018	<0.002	0.031	<0.006	0.1	<0.005	7.7E-03	<0.0025	<0.0002	4.3E-03	<0.01
	7/20/2010	6010B	<0.02	<0.02	<0.002	<0.006	<0.006	<0.05	<0.005	8.3E-03	<0.05	<0.0002	0.003	<0.02
BW-2A	9/8/2016	200.7/200.8	7.2E-03	0.15	<0.002	<0.006	<0.006	0.4	<0.0005	0.14	1.4E-03	5.3E-05	<0.0005	<0.01
	8/12/2015	200.7/200.8	7.3E-03	0.16	<0.002	<0.006	<0.006	0.5	<0.0005	0.14	<0.001	<0.0002	<0.0005	<0.01
	9/9/2014	200.7/200.8	8.5E-03	0.13	<0.002	<0.006	<0.006	0.34	<0.001	0.12	0.0023	<0.0002	<0.001	<0.01
	9/9/2013	200.7/200.8	7.6E-03	0.15	<0.002	<0.006	<0.006	0.47	<0.001	0.14	<0.001	<0.0002	<0.001	<0.01
	8/24/2012	200.7/200.8	7.2E-03	0.15	<0.002	<0.006	<0.006	0.49	<0.005	0.16	<0.0025	<0.0002	<0.0025	<0.01
	10/28/2011	200.7/200.8	7.2E-03	0.16	<0.002	<0.006	<0.006	0.87	<0.005	0.19	<0.0025	<0.0002	<0.0025	<0.01
	7/20/2010	6010B	<0.02	0.13	<0.002	<0.006	<0.006	0.36	<0.005	0.12	<0.05	<0.0002	<0.001	<0.02
BW-2B	9/8/2016	200.7/200.8	1.5E-03	0.049	<0.002	<0.006	<0.006	0.65	3.9E-04	0.15	3.6E-03	<0.0002	0.012	0.012
	8/12/2015	200.7/200.8	1.3E-03	0.1	<0.002	<0.006	<0.006	**2.5**	1.2E-03	**0.21**	1.9E-03	<0.0002	0.013	0.012
	9/9/2014	200.7/200.8	2.2E-03	0.04	<0.002	<0.006	<0.006	0.21	<0.001	0.14	4.8E-03	<0.0002	0.015	<0.01
	9/9/2013	200.7/200.8	1.1E-03	0.052	<0.002	<0.006	<0.006	0.38	<0.001	0.16	1.3E-03	<0.0002	0.014	<0.01
	8/24/2012	200.7/200.8	<0.0025	0.044	<0.002	<0.006	<0.006	0.12	<0.005	0.16	<0.0025	<0.0002	0.013	<0.01
	10/28/2011	200.7/200.8	<0.0025	0.056	<0.002	<0.006	<0.006	0.57	<0.005	**0.26**	<0.0025	<0.0002	0.015	<0.01
	7/20/2010	6010B	<0.02	0.047	<0.002	<0.006	<0.006	0.16	<0.005	**0.22**	<0.05	<0.0002	0.012	<0.02
BW-2C	9/8/2016	200.7/200.8	5.7E-04	0.02	<0.002	<0.006	<0.006	0.2	1.7E-04	0.013	2.5E-04	5.8E-05	4.7E-03	<0.01
	8/12/2015	200.7/200.8	<0.001	0.024	<0.002	<0.006	<0.006	0.51	<0.0005	0.014	<0.001	<0.0002	5.6E-03	<0.01
	9/10/2014	200.7/200.8	1.1E-03	0.055	<0.002	0.01	<0.006	**2.5**	1.7E-03	0.067	<0.001	<0.0002	5.6E-03	0.014
	9/9/2013	200.7/200.8	<0.001	0.027	<0.002	<0.006	<0.006	0.39	<0.001	0.025	<0.001	<0.0002	5.6E-03	<0.01
	8/24/2012	200.7/200.8	<0.0025	0.086	**0.013**	0.013	<0.006	**2.9**	<0.005	0.12	<0.0025	<0.0002	4.7E-03	0.025
	10/28/2011	200.7/200.8	<0.0025	0.021	<0.002	8.5E-03	<0.006	0.28	<0.005	0.023	<0.0025	<0.0002	4.3E-03	<0.01
	7/20/2010	6010B	<0.02	0.024	<0.002	0.017	<0.006	0.74	<0.005	0.033	<0.05	<0.0002	0.006	<0.02

8.1.2 BW-1C, BW-2A, BW-2B, BW-2C, BW-3B, BW-3C
Total Metals Analytical Result Summary

STANDARDS			Parameters										
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	0.002	0.03	NE
NMED TAP WATER (DEC 2014)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.4	9.2E-03	NE	0.8	14	0.015	0.43	0.1	6.3E-04	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**												
BW-3B	9/8/2016	200.7/200.8	5.5E-03	0.099	<0.002	<0.006	<0.006	0.34	1.0E-04	0.078	1.7E-03	<0.0002	<0.0005	<0.01
	8/12/2015	200.7/200.8	4.8E-03	0.11	<0.002	<0.006	<0.006	0.51	<0.0005	0.11	<0.001	<0.0002	<0.0005	<0.01
	9/10/2014	200.7/200.8	4.7E-03	0.074	<0.002	<0.006	<0.006	0.32	<0.001	0.081	2.2E-03	<0.0002	<0.001	<0.01
	9/9/2013	200.7/200.8	4.7E-03	0.1	<0.002	<0.006	<0.006	0.51	<0.001	0.1	<0.001	<0.0002	<0.001	<0.01
	8/23/2012	200.7/200.8	4.4E-03	0.22	<0.002	0.01	<0.006	**3.6**	<0.005	**0.22**	<0.0025	<0.0002	<0.0025	0.014
	10/28/2011	200.7/200.8	4.9E-03	0.093	<0.002	7.5E-03	<0.006	0.82	<0.005	0.086	<0.0025	<0.0002	<0.0025	<0.01
	7/20/2010	6010B	<0.02	0.079	<0.002	<0.006	<0.006	0.45	<0.005	0.074	<0.05	<0.0002	<0.001	<0.02
BW-3C	9/8/2016	200.7/200.8	1.3E-03	0.033	<0.002	<0.006	<0.006	0.34	3.4E-04	0.021	5.1E-04	5.8E-05	1.4E-03	5.6E-03
	8/12/2015	200.7/200.8	<0.001	0.039	<0.002	<0.006	<0.006	0.81	5.1E-04	0.028	<0.001	<0.0002	1.8E-03	0.015
	9/10/2014	200.7/200.8	2.1E-03	0.11	<0.002	0.013	<0.006	**2.7**	1.5E-03	0.073	<0.001	<0.0002	1.7E-03	0.016
	9/9/2013	200.7/200.8	2.1E-03	0.073	<0.002	<0.006	<0.006	**1.5**	<0.001	0.051	<0.001	<0.0002	0.002	0.01
	8/23/2012	200.7/200.8	<0.0025	0.043	<0.002	<0.006	<0.006	0.34	<0.005	0.022	<0.0025	<0.0002	<0.0025	0.012
	10/28/2011	200.7/200.8	<0.0025	0.036	<0.002	0.007	<0.006	0.16	<0.005	0.018	<0.0025	<0.0002	<0.0025	<0.01
	7/20/2010	6010B	<0.02	0.042	<0.002	6.8E-03	<0.006	0.83	<0.005	0.021	<0.05	<0.0002	<0.001	<0.02

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1 (Dec 2014)

NOTES

8.1.3 BW-1C, BW-2A, BW-2B, BW-2C, BW-3B, BW-3C
Dissolved Metals Analytical Result Summary

			Parameters									
STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	0.03	NE
NMED TAP WATER (JUL 2015)			0.000513	3.3	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.20E-05	0.4	9.20E-03	NE	0.8	14	0.015	0.43	0.1	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**											
BW-1C	9/8/2016	200.7/200.8	3.2E-04	0.017	<0.002	<0.006	<0.006	0.029	<0.0005	7.7E-03	6.3E-04	8.9E-03	<0.01
	8/12/2015	200.7/200.8	<0.005	0.018	<0.002	<0.006	<0.006	0.04	<0.0025	0.011	<0.005	8.7E-03	<0.01
	9/9/2014	200.7/200.8	<0.001	0.02	<0.002	<0.006	<0.006	<0.02	<0.005	0.011	<0.001	8.9E-03	<0.01
	9/9/2013	200.7/200.8	<0.001	0.017	<0.002	<0.006	<0.006	<0.02	<0.001	<0.002	<0.001	5.7E-03	<0.01
	8/24/2012	200.7/200.8	<0.001	0.016	<0.002	<0.006	<0.006	<0.02	<0.005	2.9E-03	<0.001	0.005	<0.01
	10/28/2011	200.7/200.8	<0.001	0.016	<0.002	<0.006	<0.006	<0.02	<0.005	<0.002	<0.001	4.3E-03	0.026
	7/20/2010	6010B	<0.02	<0.02	<0.002	<0.006	<0.006	<0.02	<0.005	9.4E-03	<0.05	0.003	<0.05
BW-2A	9/8/2016	200.7/200.8	7.9E-03	0.15	<0.002	<0.006	<0.006	0.37	<0.0005	0.14	2.0E-03	7.6E-05	<0.01
	8/12/2015	200.7/200.8	7.9E-03	0.15	<0.002	<0.006	<0.006	0.37	<0.0025	0.14	<0.005	<0.0025	0.016
	9/9/2014	200.7/200.8	8.3E-03	0.16	<0.002	<0.006	<0.006	0.38	<0.005	0.13	2.7E-03	<0.005	<0.01
	9/9/2013	200.7/200.8	8.1E-03	0.15	<0.002	<0.006	<0.006	0.39	<0.001	0.15	1.5E-03	<0.001	<0.01
	8/24/2012	200.7/200.8	7.2E-03	0.14	<0.002	<0.006	<0.006	0.26	<0.005	0.13	0.001	<0.001	<0.01
	10/28/2011	200.7/200.8	6.5E-03	0.13	<0.002	<0.006	<0.006	0.28	<0.005	0.12	<0.001	<0.001	0.021
	7/20/2010	6010B	<0.02	0.14	<0.002	<0.006	<0.006	0.29	<0.005	0.14	<0.05	<0.001	<0.05
BW-2B	9/8/2016	200.7/200.8	1.7E-03	0.04	<0.002	<0.006	<0.006	0.1	<0.0005	0.15	3.9E-03	0.013	<0.01
	8/12/2015	200.7/200.8	<0.005	0.05	<0.002	<0.006	<0.006	0.6	2.9E-03	0.16	<0.005	0.012	<0.01
	9/9/2014	200.7/200.8	2.2E-03	0.042	<0.002	<0.006	<0.006	0.096	<0.001	0.14	4.7E-03	0.014	<0.01
	9/9/2013	200.7/200.8	1.6E-03	0.044	<0.002	<0.006	<0.006	0.078	<0.005	0.16	3.5E-03	0.014	<0.01
	8/24/2012	200.7/200.8	1.1E-03	0.043	<0.002	<0.006	<0.006	0.064	<0.005	0.16	1.9E-03	0.014	0.03
	10/28/2011	200.7/200.8	<0.001	0.051	<0.002	<0.006	<0.006	0.26	<0.005	**0.25**	1.3E-03	0.016	0.026
	7/20/2010	6010B	<0.02	0.047	<0.002	<0.006	<0.006	0.14	<0.005	**0.22**	**1.2**	0.012	<0.05
BW-2C	9/8/2016	200.7/200.8	6.7E-04	0.016	<0.002	<0.006	<0.006	<0.02	<0.0005	3.9E-03	7.0E-04	5.0E-03	<0.01
	8/12/2015	200.7/200.8	<0.005	0.018	<0.002	<0.006	<0.006	<0.02	<0.0025	<0.002	<0.005	5.4E-03	<0.01
	9/10/2014	200.7/200.8	<0.001	0.031	<0.002	<0.006	<0.006	0.81	<0.005	2.6E-02	<0.001	5.1E-03	<0.01
	9/9/2013	200.7/200.8	<0.001	0.018	<0.002	<0.006	<0.006	<0.02	<0.001	2.5E-03	<0.001	5.3E-03	<0.01
	8/24/2012	200.7/200.8	<0.001	0.086	**5.6E-03**	<0.006	<0.006	**3.0**	<0.005	0.049	<0.001	4.8E-03	0.014
	10/28/2011	200.7/200.8	<0.001	0.015	<0.002	<0.006	<0.006	<0.02	<0.005	<0.002	<0.001	4.4E-03	0.015
	7/20/2010	6010B	<0.02	<0.02	<0.002	<0.006	<0.006	0.028	<0.005	4.5E-03	<0.05	0.006	<0.05

8.1.3 BW-1C, BW-2A, BW-2B, BW-2C, BW-3B, BW-3C
Dissolved Metals Analytical Result Summary

STANDARDS			Parameters									
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	0.03	NE
NMED TAP WATER (JUL 2015)			0.000513	3.3	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.20E-05	0.4	9.20E-03	NE	0.8	14	0.015	0.43	0.1	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**											
BW-3B	9/8/2016	200.7/200.8	5.9E-03	0.1	<0.002	<0.006	<0.006	0.41	<0.0025	0.11	2.4E-03	1.3E-04	<0.01
	8/12/2015	200.7/200.8	5.3E-03	0.1	<0.002	<0.006	<0.006	0.4	<0.0025	0.11	<0.005	<0.0025	<0.01
	9/10/2014	200.7/200.8	6.1E-03	0.11	<0.002	<0.006	<0.006	0.42	<0.005	0.1	2.7E-03	<0.005	0.015
	9/9/2013	200.7/200.8	5.2E-03	0.1	<0.002	<0.006	<0.006	0.44	<0.005	0.12	0.002	<0.005	<0.01
	8/23/2012	200.7/200.8	4.9E-03	0.091	<0.002	<0.006	<0.006	0.11	<0.005	0.11	0.001	<0.001	<0.01
	10/28/2011	200.7/200.8	4.9E-03	0.11	<0.002	<0.006	<0.006	0.97	<0.005	0.12	<0.001	<0.001	0.035
	7/20/2010	6010B	<0.02	0.076	<0.002	<0.006	<0.006	0.21	<0.005	0.083	<0.05	<0.001	0.054
BW-3C	9/8/2016	200.7/200.8	1.3E-03	0.027	<0.002	<0.006	<0.006	0.029	<0.0005	0.014	7.6E-04	1.5E-03	<0.01
	8/12/2015	200.7/200.8	<0.005	0.031	<0.002	<0.006	<0.006	0.13	<0.0025	0.019	<0.005	<0.0025	<0.01
	9/10/2014	200.7/200.8	1.9E-03	0.046	<0.002	<0.006	<0.006	0.73	<0.005	0.024	<0.001	<0.005	<0.01
	9/9/2013	200.7/200.8	0.002	0.039	<0.002	<0.006	<0.006	0.46	<0.005	0.022	<0.001	<0.005	<0.01
	8/23/2012	200.7/200.8	2.2E-03	0.035	<0.002	<0.006	<0.006	0.031	<0.005	0.017	<0.001	1.4E-03	0.012
	10/28/2011	200.7/200.8	1.7E-03	0.034	<0.002	<0.006	<0.006	<0.02	<0.005	0.014	<0.001	1.3E-03	0.066
	7/20/2010	6010B	<0.02	0.035	<0.002	<0.006	<0.006	0.073	<0.005	0.013	<0.05	0.001	<0.05

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1 (Dec 2014)

NOTES

8.1.4 BW-1C, BW-3B, BW-3C

Semi Volatile Organic Compound Analytical Result Summary

			Parameters
			Bis(2-ethylhexyl)phthalate (mg/L)
STANDARDS			
WQCC 20NMAC 6.2.3103			NE
40 CFR 141.62 MCL			**0.006**
NMED TAP WATER (JUL 2015)			0.0556
EPA RSL for Tap Water (MAY 2016)			0.0056
Well ID	**DATE SAMPLED**	**METHOD**	
BW-1C	9/10/2014	8270C	<0.01
	9/9/2013	8270C	**0.01**
BW-3B	9/10/2014	8270C	<0.01
	9/9/2013	8270C	<0.01
	8/23/2012	8270C	<0.01
	10/28/2011	8270C	<0.01
	7/20/2010	8270C	<0.01
	7/6/2009	8270C	**0.01** [1]
BW-3C	9/10/2014	8270C	<0.01
	9/9/2013	8270C	<0.01
	8/23/2012	8270C	<0.01
	10/28/2011	8270C	**0.014** [1]

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1 (Dec 2014)

NOTES

1) Detected for the first time. Possible lab contaminant.

2) Request to remove 8270C Analysis in 2015 approved per NMED Comment 7(b), Approval with Modification, FWGWMWP - 2012 Updates; 2013 Updates; 2014 Updates for 2015.

8.2 MW-1, MW-2, MW-4, MW-5
BTEX Analytical Result Summary

STANDARDS			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL (NOV 2015)			**0.005**	1.0	**0.7**	10	NE
NMED TAP WATER (DEC 2014)			0.00454	1.1	0.0149	0.193	**0.143**
EPA RSL for Tap Water (NOV 2015)			4.6E-04	1.1	0.0015	0.19	0.014
WELL ID	**DATE SAMPLED**	**METHOD**					
MW-1	9/7/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/14/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/16/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/9/2013	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/24/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/6/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/16/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
MW-2	9/7/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/14/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/16/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/10/2013	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/24/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/10/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
MW-4	9/7/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/17/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/17/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/10/2013	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/21/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/12/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/19/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
MW-5	9/7/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/14/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/17/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/10/2013	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
`	8/23/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/10/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/19/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001

DEFINITIONS
NE = Not established
NA = Not analyzed
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.2.1 MW-1, MW-2, MW-4, MW-5

General Chemistry Analytical Result Summary

			Parameters							
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
STANDARDS										
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	NE	**10**	**600.0**	NE	NE	NE
40 CFR 141.62 MCL (NOV 2015)			4.0	NE	**10.0**	10	NE	NE	NE	NE
NMED TAP WATER (DEC 2014)			1.18	NE	1.97	31.6	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2015)			0.8	NE	2	32	NE	NE	NE	NE
WELL ID	**DATE SAMPLED**	**METHOD**								
MW-1	9/7/2016	300.0/8015D	0.63	44	<1.0	<1.0	150	<1.0	0.025	<5.0
	8/14/2015	300.0/8015D	0.39	23	<1.0	<1.0	73	<1.0	<0.05	<5.0
	9/16/2014	300.0/8015B	0.69	44	<1.0	<1.0	150	<1.0	<0.05	<5.0
	9/9/2013	300.0/8015B	0.61	44	4.1	4.1	150	<1.0	<0.05	<5.0
	8/24/2012	300.0/8015B	0.67	47	<1.0	<1.0	140	<1.0	<0.05	<5.0
	10/6/2011	300.0/8015B	0.64	47	**27**	**27**	160	<1.0	<0.05	<5.0
	7/16/2010	300.0/8015B	NA	NA	NA	NA	NA	<1.0	<0.05	
MW-2	9/7/2016	300.0/8015D	0.66	50	<1.0	<1.0	150	<1.0	0.021	<5.0
	8/14/2015	300.0/8015D	0.54	35	<1.0	<1.0	100	<1.0	<0.05	<5.0
	9/16/2014	300.0/8015B	0.73	51	21	21	150	<1.0	<0.05	<5.0
	9/10/2013	300.0/8015B	0.77	50	<0.1	0.11	150	<1.0	<0.05	<5.0
	8/24/2012	300.0	0.67	49	<1.0	<1.0	150	<1.0	<0.05	<5.0
	10/10/2011	300.0	0.79	52	<1.0	<1.0	160	<1.0	<0.05	<5.0
MW-4	9/7/2016	300.0/8015D	0.21	18	<1.0	<1.0	140	<1.0	0.02	<5.0
	8/17/2015	300.0/8015D	0.29	18	<1.0	<1.0	140	<1.0	<0.05	<5.0
	9/17/2014	300.0/8015B	0.31	18	<1.0	<1.0	140	<1.0	<0.05	<5.0
	9/10/2013	300.0/8015B	0.32	18	<0.1	0.14	150	<1.0	<0.05	<5.0
	8/21/2012	300.0/8015B	0.29	16	<1.0	<1.0	140	<1.0	<0.05	<5.0
	10/12/2011	300.0/8015B	0.35	18	6.8	6.8	150	<1.0	<0.05	<5.0
	7/19/2010	300.0/8015B	NA	NA	NA	NA	NA	<1.0	<0.05	
	3/1/2010 [1]	8015B	NA	NA	NA	NA	NA	<1.0	<0.05	
MW-5	9/7/2016	300.0/8015D	0.65	56	<1.0	<1.0	160	<1.0	0.027	<5.0
	8/14/2015	300.0/8015D	0.72	58	<1.0	<1.0	160	<1.0	<0.05	<5.0
	9/17/2014	300.0/8015B	0.73	56	1.1	1.1	150	<1.0	<0.05	<5.0
	9/10/2013	300.0/8015B	0.76	57	<0.1	0.8	160	<1.0	<0.05	<5.0
	8/23/2012	300.0/8015B	0.67	55	<1.0	<1.0	160	<1.0	<0.05	<5.0
	10/10/2011	300.0/8015B	0.79	59	<1.0	<1.0	170	<1.0	<0.05	<5.0
	7/19/2010	300.0/8015B	NA	NA	NA	NA	NA	<1.0	<0.05	
	3/1/2010 [1]	8015B	NA	NA	NA	NA	NA	<1.0	<0.05	

8.2.1 MW-1, MW-2, MW-4, MW-5

General Chemistry Analytical Result Summary

STANDARDS			Parameters							
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	NE	**10**	**600.0**	NE	NE	NE
40 CFR 141.62 MCL (NOV 2015)			4.0	NE	**10.0**	10	NE	NE	NE	NE
NMED TAP WATER (DEC 2014)			1.18	NE	1.97	31.6	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2015)			0.8	NE	2	32	NE	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD								

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) This was part of the 10 year RCRA Post Closure Sampling Event

8.2.2 MW-1, MW-2, MW-4, MW-5
Total Metals Analytical Result Summary

STANDARDS			Parameters										
			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Cyanide (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	**0.05**	**1.0**	0.05	**0.2**	**0.05**	**0.2**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (NOV 2015)			**0.01**	2.0	0.1	NE	**0.015**	NE	0.05	0.2	0.002	0.03	NE
NMED TAP WATER (DEC 2014)			0.000513	3.28	0.00559	13.8	NE	2.02	0.0987	0.00146	0.000626	0.0592	5.96
EPA RSL for Tap Water (NOV 2015)			5.2E-05	0.4	NE	14	0.015	0.43	0.1	1.5E-02	6.3E-04	0.06	6
WELL ID	**DATE SAMPLED**	**METHOD**											
MW-1	9/7/2016	200.7/200.8	1.5E-03	0.012	<0.006	<0.02	1.4E-04	3.2E-03	5.3E-04	<0.01	5.6E-05	0.01	<0.01
	8/14/2015	200.7/200.8	1.3E-03	0.013	<0.006	0.048	5.1E-04	3.3E-03	<0.001	<0.01	<0.0002	0.011	<0.01
	9/16/2014	200.7/200.8	1.1E-03	0.012	<0.006	0.11	1.7E-03	0.012	<0.001	<0.01	<0.0002	0.012	<0.01
	9/9/2013	200.7/200.8	1.4E-03	0.011	<0.006	<0.02	<0.001	<0.002	<0.001	4.07E-02	<0.0002	0.011	<0.01
	8/24/2012	200.7/200.8	<0.0025	0.014	<0.006	0.078	<0.005	7.1E-03	<0.0025	NA	<0.0002	0.011	<0.01
	10/6/2011	200.7/200.8	<0.0025	0.012	<0.006	0.12	<0.005	0.01	<0.0025	NA	<0.0002	0.011	<0.01
	7/16/2010	6010B	1.46E-03	<0.02	<0.006	NA	<0.005	NA	<0.001	<0.01	<0.0002	NA	<002
	3/1/10 [1]	6010B	<0.005	<0.02	<0.006	NA	<0.005	NA	<0.005	<0.01	<0.0002	NA	<0.02
MW-2	9/7/2016	200.7/200.8	1.3E-03	0.02	<0.006	0.023	<0.0005	3.1E-03	5.8E-04	<0.01	5.6E-05	8.8E-03	<0.01
	8/14/2015	200.7/200.8	<0.001	0.02	<0.006	0.023	<0.0005	3.5E-03	<0.001	<0.01	<0.0002	9.4E-03	<0.01
	9/16/2014	200.7/200.8	<0.001	0.019	<0.006	<0.02	<0.001	3.1E-03	<0.001	<0.01	<0.0002	9.5E-03	<0.01
	9/10/2013	200.7/200.8	0.001	0.02	<0.006	<0.02	<0.001	0.006	<0.001	<0.01	<0.0002	9.7E-03	<0.01
	8/24/2012	200.7/200.8	<0.0025	0.021	<0.006	0.022	<0.005	7.2E-03	<0.0025	NA	<0.0002	9.7E-03	<0.01
	10/10/2011	200.7/200.8	<0.0025	0.02	<0.006	<0.02	<0.005	0.008	<0.0025	NA	<0.0002	9.6E-03	<0.01
	3/1/10 [1]	6010B	<0.005	<0.02	<0.006	NA	<0.005	NA	<0.005	<0.01	<0.0002	NA	<0.02
MW-4	9/7/2016	200.7/200.8	9.8E-04	0.022	<0.006	0.028	1.7E-04	6.4E-03	6.5E-04	<0.01	<0.0002	0.016	<0.01
	8/17/2015	200.7/200.8	<0.001	0.02	<0.006	<0.02	<0.0005	5.2E-03	<0.001	<0.01	<0.0002	0.016	<0.01
	9/17/2014	200.7/200.8	<0.001	0.022	<0.006	<0.02	<0.001	6.1E-03	<0.001	<0.01	<0.0002	0.018	<0.01
	9/10/2013	200.7/200.8	<0.001	0.021	<0.006	<0.02	<0.001	5.8E-03	<0.001	<0.01	<0.0002	0.018	<0.01
	8/21/2012	200.7/200.8	<0.0025	0.02	<0.006	<0.02	<0.005	3.4E-03	<0.0025	NA	<0.0002	0.018	<0.01
	10/12/2011	200.7/200.8	<0.0025	0.022	<0.006	<0.02	<0.005	6.9E-03	<0.0025	NA	<0.0002	0.018	<0.01
	7/19/2010	6010B	1.17E-03	<0.02	<0.006	NA	<0.005	NA	<0.001	<0.01	<0.0002	NA	<0.02
	3/1/10 [1]	6010B	<0.005	0.023	<0.006	NA	<0.005	NA	<0.005	<0.01	<0.0002	NA	<0.02
MW-5	9/7/2016	200.7/200.8	1.2E-03	0.041	<0.006	<0.02	<0.0005	4.6E-03	3.8E-04	<0.01	5.5E-05	9.2E-03	<0.01
	8/14/2015	200.7/200.8	<0.001	0.09	<0.006	<0.02	<0.0005	3.1E-03	<0.001	<0.01	<0.0002	9.3E-03	<0.01
	9/17/2014	200.7/200.8	0.001	0.019	<0.006	<0.02	<0.001	4.6E-03	<0.001	<0.01	<0.0002	9.8E-03	<0.01
	9/10/2013	200.7/200.8	<0.001	0.04	<0.006	<0.02	<0.001	3.5E-03	<0.001	<0.01	<0.0002	9.6E-03	<0.01
	8/23/2012	200.7/200.8	<0.0025	0.026	<0.006	<0.02	<0.005	0.012	<0.0025	NA	<0.0002	9.5E-03	<0.01
	10/10/2011	200.7/200.8	<0.0025	0.024	<0.006	<0.02	<0.005	4.3E-03	<0.0025	NA	<0.0002	9.7E-03	<0.01
	7/19/2010	6010B	1.36E-03	<0.02	<0.006	NA	<0.005	NA	<0.001	<0.01	<0.0002	NA	<0.02
	3/1/10 [1]	6010B	<0.005	0.024	<0.006	NA	<0.005	NA	<0.005	<0.01	<0.0002	NA	<0.02

DEFINITIONS
NE = Not established
NA = Not analyzed
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES
1) This was part of the 10 year RCRA Post Closure Sampling Event.

8.2.3 MW-1, MW-2, MW-4, MW-5

Dissolved Metals Analytical Result Summary

			Parameters									
STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL (NOV 2015)			**0.01**	2.0	**NE**	0.1	1.3	NE	**0.015**	NE	0.05	0.03	NE
NMED TAP WATER (DEC 2014)			0.000513	3.3	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0592	5.96
EPA RSL for Tap Water (NOV 2015)			5.2E-05	0.4	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.06	6
WELL ID	**DATE SAMPLED**	**METHOD**											
MW-1	9/7/2016	200.7/200.8	1.3E-03	0.011	<0.002	<0.006	<0.006	<0.02	<0.0005	3.1E-03	5.4E-04	0.011	<0.01
	8/14/2015	200.7/200.8	<0.01	0.011	<0.002	<0.006	<0.006	<0.02	<0.0025	<0.002	<0.01	0.011	<0.01
	9/16/2014	200.7/200.8	1.2E-03	9.5E-03	<0.002	<0.006	<0.006	<0.02	<0.001	2.7E-03	<0.001	0.011	0.014
	9/9/2013	200.7/200.8	1.6E-03	0.012	<0.002	<0.006	<0.006	<0.02	<0.001	<0.002	<0.001	0.012	<0.01
	8/24/2012	200.7/200.8	1.3E-03	0.012	<0.002	<0.006	<0.006	<0.02	<0.005	<0.002	<0.001	0.011	<0.01
	10/6/2011	200.7/200.8	0.002	0.01	<0.002	<0.006	<0.006	<0.02	<0.005	<0.002	<0.001	0.011	0.11
MW-2	9/7/2016	200.7/200.8	1.1E-03	0.02	<0.002	<0.006	<0.006	<0.02	<0.0005	3.1E-03	0.0006	9.5E-03	<0.01
	8/14/2015	200.7/200.8	<0.01	0.017	<0.002	<0.006	<0.006	<0.02	<0.0025	2.1E-03	<0.01	9.1E-03	<0.01
	9/16/2014	200.7/200.8	1.2E-03	0.017	<0.002	<0.006	<0.006	<0.02	<0.001	2.6E-03	<0.001	9.3E-03	0.026
	9/10/2013	200.7/200.8	<0.001	0.02	<0.002	<0.006	<0.006	<0.02	<0.001	5.1E-03	<0.001	9.5E-03	<0.01
	8/24/2012	200.7/200.8	<0.001	0.018	<0.002	<0.006	<0.006	<0.02	<0.005	0.003	<0.001	0.009	0.019
	10/10/2011	200.7/200.8	<0.001	0.019	<0.002	<0.006	<0.006	<0.02	<0.005	0.007	<0.001	9.3E-03	<0.01
MW-4	9/7/2016	200.7/200.8	8.9E-04	0.02	<0.002	<0.006	<0.006	<0.02	<0.0005	4.6E-03	7.2E-04	0.017	<0.01
	8/17/2015	200.7/200.8	<0.01	0.021	<0.002	<0.006	<0.006	<0.02	<0.0025	5.1E-03	<0.01	0.016	0.036
	9/17/2014	200.7/200.8	<0.001	0.018	<0.002	<0.006	<0.006	<0.02	<0.001	5.7E-03	<0.001	0.017	<0.01
	9/10/2013	200.7/200.8	<0.001	0.022	<0.002	<0.006	<0.006	<0.02	<0.001	5.7E-03	<0.001	0.018	0.017
	8/21/2012	200.7/200.8	<0.001	0.019	<0.002	<0.006	<0.006	<0.02	<0.005	3.1E-03	<0.001	0.016	0.033
	10/12/2011	200.7/200.8	<0.001	0.021	<0.002	<0.006	<0.006	<0.02	<0.005	5.8E-03	<0.001	0.017	0.1
MW-5	9/7/2016	200.7/200.8	1.0E-03	0.017	<0.002	<0.006	<0.006	<0.02	<0.0005	3.5E-03	0.0005	9.4E-03	<0.01
	8/14/2015	200.7/200.8	<0.01	0.017	<0.002	<0.006	<0.006	<0.02	<0.0025	3.2E-03	<0.01	9.1E-03	<0.01
	9/17/2014	200.7/200.8	1.2E-03	0.015	<0.002	<0.006	<0.006	<0.02	<0.001	4.5E-03	<0.001	9.4E-03	0.025
	9/10/2013	200.7/200.8	0.001	0.018	<0.002	<0.006	<0.006	<0.02	<0.001	3.4E-03	<0.001	0.01	0.012
	8/23/2012	200.7/200.8	<0.001	0.016	<0.002	<0.006	<0.006	<0.02	<0.005	2.9E-03	<0.001	9.1E-03	<0.01
	10/10/2011	200.7/200.8	1.1E-03	0.016	<0.002	<0.006	<0.006	<0.02	<0.005	4.4E-03	<0.001	9.5E-03	0.12

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.2.4 MW-1, MW-2, MW-4, MW-5

Volatile and Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS			Parameters						
			Acetone (mg/L)	Diethyl phthalate (mg/L)	Bis (2-ethylhexyl) phthalate (mg/L)	Benzoic Acid (mg/L)	D-n-octyl phthalate (mg/L)	Dimethyl phthalate (mg/L)	Pyrene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE
40 CFR 141.62 MCL (NOV 2015)			NE	NE	**0.006**	NE	NE	NE	NE
NMED TAP WATER (DEC 2014)			**14.1**	**14.8**	0.00556	NE	NE	NE	**0.117**
EPA RSL for Tap Water (NOV 2015)			14	15	0.0056	**75**	**0.2**	NE	0.12
WELL ID	**DATE SAMPLED**	**METHOD**							
MW-1	9/7/2016	8260/8270C	<0.01	<0.01	0.004	9.8E-03	4.4E-03	5.1E-03	
	8/14/2015	8260/8270C	<0.01	<0.01	<0.01				
	9/16/2014	8260/8270C	<0.01	<0.01	<0.01				
	9/9/2013	8260/8270C	<0.01	<0.01	<0.01				
	8/24/2012	8260/8270C	<0.01	<0.01	<0.01				
	10/6/2011	8260B	<0.01	NL	NL				
	7/16/2010	8260/8270C	<0.01	1.03E-03	<0.005				
	3/1/2010 [1]	8260/8270C	<0.0025	NL	<0.005				
MW-2	9/7/2016	8260/8270C	<0.01	<0.01	0.0038	0.018	3.5E-03	0.005	5.2E-03
	8/14/2015	8260/8270C	<0.01	<0.01	<0.01				
	9/16/2014	8260/8270C	<0.01	<0.01	<0.01				
	9/10/2013	8260/8270C	<0.01	<0.01	<0.01				
	8/24/2012	8260/8270C	<0.01	<0.01	<0.01				
	10/10/2011	8260B	<0.01	NL	NL				
	3/1/2010 [1]	8260/8270C	2.73E-03	<0.01	<0.005				
MW-4	9/7/2016	8260/8270C	<0.01	<0.01	0.0035	9.3E-03	0.0037	4.5E-03	3.2E-03
	8/17/2015	8260/8270C	<0.01	<0.01	<0.01				
	9/17/2014	8260/8270C	<0.01	<0.01	<0.01				
	9/10/2013	8260/8270C	<0.01	<0.01	<0.01				
	8/21/2012	8260/8270C	<0.01	<0.01	<0.01				
	10/12/2011	8260B	<0.01	NL	NL				
	3/1/2010 [1]	8260/8270C	<0.0025	<0.01	<0.005				
	7/19/2010	8260/8270C	<0.01	<0.01	<0.005				
MW-5	9/7/2016	8260/8270C	<0.01	<0.01	0.0033	6.5E-03	3.4E-03	5.1E-03	
	8/14/2015	8260/8270C	<0.01	<0.01	<0.01				
	9/17/2014	8260/8270C	<0.01	<0.01	<0.01				
	9/10/2013	8260/8270C	<0.01	<0.01	<0.01				
	8/23/2012	8260/8270C	<0.01	<0.01	<0.01				
	10/10/2011	8260B	<0.01	NL	NL				
	3/1/2010 [1]	8260/8270C	3.36E-03	NL	<0.005				
	7/19/2010	8260/8270C	<0.01	<0.01	<0.005				

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) This was part of the 10 year RCRA Post Closure Sampling Event

8.3 SMW-2, SMW-4

BTEX Analytical Result Summary

STANDARDS			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED TAP WATER (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
WELL ID	**DATE SAMPLED**	**METHOD**					
SMW-2	9/9/2016	8260B	<0.001	<0.001	<0.001	<0.0015	0.013
	8/18/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.011
	9/11/2014	8260B	<0.001	<0.001	<0.001	<0.0015	0.012
	9/9/2013	8260B	<0.001	<0.001	<0.001	<0.0015	9.7E-03
	8/23/2012	8260B	<0.01	<0.01	<0.01	<0.015	0.012
	10/12/2011	8260B	<0.001	<0.001	<0.001	<0.0015	7.9E-03
	7/16/2010	8260B	<0.001	<0.001	<0.001	<0.0015	8.8E-03
SMW-4	8/14/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/7/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/11/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/9/2013	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/24/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/10/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/16/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.3.1 SMW-2, SMW-4

General Chemistry and DRO/GRO Analytical Result Summary

STANDARDS			Parameters							
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	NE	**10**	**600.0**	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	**10.0**	10	NE	NE	NE	NE
NMED TAP WATER (JUL 2015)			1.18	NE	1.97	31.6	NE	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			0.8	NE	2	32	NE	NE	NE	NE
WELL ID	**DATE SAMPLED**	**METHOD**								
SMW-2	9/9/2016	300.0	<0.1	**2500**	<2.0	<2.0	**1300**	<1.0	1.0	<5.0
	8/18/2015	301.0	<2.1	**3000**	<4.0	<4.0	**1601**	<1.1	1.78	<5.1
	9/11/2014	300.0	<2.0	**2500**	<2.0	<2.0	**1400**	<1.0	0.23	<5.0
	9/9/2013	300.0	<0.1	**2500**	<4.0	<4.0	**1500**	<1.0	0.15	<5.0
	8/23/2012	300.0	0.16	**2400**	<2.0	<2.0	**1600**	<1.0	0.28	<5.0
	10/12/2011	300.0	0.22	**2600**	<10	<10	**1600**	<1.0	0.36	<5.0
	7/16/2010	300.0	NA	NA	NA	NA	NA	<1.0	<0.05	
SMW-4	9/7/2016	300.0	1.0	53	<1.0	<1.0	150	<1.0	0.028	<5.0
	8/14/2015	300.0	1.0	55	<1.0	<1.0	160	<1.0	<0.05	<5.0
	9/11/2014	300.0	1.1	53	<1.0	<1.0	150	<1.0	<0.05	<5.0
	9/9/2013	300.0	0.93	59	<1.0	<1.0	170	<1.0	<0.05	<5.0
	8/24/2012	300.0	1.0	58	<1.0	<1.0	150	<1.0	<0.05	<5.0
	10/10/2011	300.0	1.1	58	1.3	1.3	170	<1.0	<0.05	<5.0
	7/16/2010	300.0	NA	NA	NA	NA	NA	<1.0	<0.05	
	3/1/2010 [1]	8015B	NA	NA	NA	NA	NA	<1.0	<0.05	

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) This was part of the 10 year RCRA Post Closure sampling event

8.3.2 SMW-2, SMW-4

Total Metals Analytical Result Summary

STANDARDS			Parameters											
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Cyanide (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.2**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	0.2	0.002	0.03	NE
NMED TAP WATER (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.00146	0.000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.4	9.2E-03	NE	0.8	14	0.015	0.43	0.1	1.5E-02	6.3E-04	0.06	6
WELL ID	DATE SAMPLED	METHOD													
SMW-2	9/9/2016	200.7/200.8	**0.011**	0.042	<0.002	**0.13**	<0.006	**1.4**	1.3E-03	**0.3**	0.016	0.041	9.6E-05	**0.11**	0.011
	8/18/2015	200.7/200.9	<0.02	**1.018**	<0.003	**1.0071**	<0.007	**1.26**	<0.006	**1.33**	<0.02	**1.045**	<0.0003	**1.12**	<0.02
	9/11/2014	200.7/200.8	<0.01	0.013	<0.002	<0.006	<0.006	0.052	<0.001	**0.28**	0.019	4.6E-02	<0.0002	**0.11**	<0.01
	9/9/2013	200.7/200.8	<0.01	0.028	<0.002	0.029	<0.006	0.66	<0.01	**0.27**	<0.01	4.1E-02	<0.0002	**0.11**	0.011
	8/23/2012	200.7/200.8	0.005	0.038	<0.002	**0.17**	<0.006	**1.5**	<0.005	**0.25**	7.2E-03	NL	<0.0002	**0.11**	0.021
	10/12/2011	200.7/200.8	5.2E-03	0.031	<0.002	**0.11**	<0.006	0.68	<0.005	0.16	0.011	NL	<0.0002	**0.12**	<0.01
	7/16/2010	6010B	3.5E-03	0.022	<0.002	**0.093**	NL	NL	<0.005	NL	<0.001	5.25E-02	<0.0002	NL	<0.02
SMW-4	9/7/2016	200.7/200.8	3.0E-03	0.043	<0.002	3.6E-02	9.9E-03	**1.6**	1.7E-03	0.035	9.6E-04	<0.01	5.8E-05	**0.031**	0.011
	8/14/2015	200.7/200.8	3.0E-03	0.028	<0.002	7.8E-03	<0.006	0.32	5.3E-04	0.01	<0.001	<0.01	<0.0002	**0.036**	<0.01
	9/11/2014	200.7/200.8	3.4E-03	0.024	<0.002	<0.006	<0.006	0.35	<0.001	0.012	1.3E-03	<0.01	<0.0002	**0.037**	<0.01
	9/9/2013	200.7/200.8	2.5E-03	0.021	<0.002	0.025	<0.006	0.15	<0.001	0.005	<0.001	<0.01	<0.0002	**0.031**	0.012
	8/24/2012	200.7/200.8	3.3E-03	0.019	<0.002	<0.006	<0.006	0.13	<0.005	4.6E-03	<0.0025	NA	<0.0002	**0.033**	<0.01
	10/10/2011	200.7/200.8	2.9E-03	0.037	<0.002	**0.058**	<0.006	0.94	<0.005	0.029	<0.0025	NL	<0.0002	**0.037**	0.012
	7/16/2010	6010B	3.33E-03	0.027	<0.002	<0.006	NL	NL	<0.005	NL	<0.001	<0.01	<0.0002	NL	<0.02
	3/1/10 [1]	6010B	<0.005	0.035	<0.002	8.2E-03	NL	NL	<0.005	NL	<0.005	<0.01	<0.0002	NL	<0.02

DEFINITIONS
NE = Not established
NA = Not analyzed
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES
1) This was part of the 10 year RCRA Post Closure sampling event

8.3.3 SMW-2, SMW-4

Dissolved Metals Analytical Result Summary

STANDARDS			Parameters									
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	0.03	NE
NMED TAP WATER (JUL 2015)			0.000513	3.28	0.000624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.4	9.20E-03	NE	0.8	14	0.015	0.43	0.1	0.06	6
WELL ID	**DATE SAMPLED**	**METHOD**											
SMW-2	9/9/2016	200.7/200.8	6.6E-03	0.018	<0.002	<0.006	<0.006	0.032	<0.0005	**0.24**	0.015	**0.11**	0.005
	8/18/2015	200.7/200.9	<0.02	**1.015**	<0.003	<0.006	<0.006	**1.022**	<0.0026	**0.31**	<0.02	**0.12**	0.024
	9/11/2014	200.7/200.8	<0.01	0.015	<0.002	<0.006	<0.006	0.049	<0.02	**0.27**	0.021	**0.11**	<0.01
	9/9/2013	200.7/200.8	5.5E-03	0.016	<0.002	<0.006	<0.006	0.028	<0.01	0.17	0.011	**0.1**	0.014
	8/23/2012	200.7/200.8	<0.005	0.016	<0.002	<0.006	<0.006	0.042	<0.005	**0.22**	7.2E-03	**0.1**	0.029
	10/12/2011	200.7/200.8	6.4E-03	0.016	<0.002	<0.006	<0.006	<0.1	<0.005	**0.24**	0.015	**0.11**	0.11
	7/16/2010	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SMW-4	9/7/2016	200.7/200.8	3.0E-03	0.019	<0.002	2.8E-03	<0.006	0.078	2.1E-03	6.4E-03	1.1E-03	**0.032**	2.9E-03
	8/14/2015	200.7/200.8	<0.01	0.02	<0.002	<0.006	<0.006	<0.02	<0.0025	<0.002	<0.01	**0.035**	<0.01
	9/11/2014	200.7/200.8	3.3E-03	0.021	<0.002	<0.006	<0.006	0.041	<0.01	3.3E-03	1.3E-03	**0.033**	<0.01
	9/9/2013	200.7/200.8	2.6E-03	0.021	<0.002	0.012	<0.006	<0.02	<0.001	<0.002	<0.001	**0.031**	<0.01
	8/24/2012	200.7/200.8	2.8E-03	0.016	<0.002	<0.006	<0.006	<0.02	<0.005	<0.002	<0.001	0.03	<0.01
	10/10/2011	200.7/200.8	0.003	0.02	<0.002	9.2E-03	<0.006	0.035	<0.005	4.1E-03	1.1E-03	**0.032**	0.13
	7/16/2010	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/1/10 [1]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) This was part of the 10 year RCRA Post Closure sampling event

8.3.4 SMW-2, SMW-4

Volatile and Semi Volatile Organic Compound Analytical Result Summary

STANDARDS			Parameters							
			Acetone (mg/L)	Benzoic Acid (mg/L)	bis(2-Ethylhexyl) phthalate (mg/L)	Di-n-octyl phthalate (mg/L)	Diethyl phthalate (mg/L)	Dimethyl phthalate (mg/L)	Phenol (mg/L)	Pyrene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	**0.005**	NE
40 CFR 141.62 MCL			NE	NE	**0.006**	NE	NE	NE	NE	NE
NMED TAP WATER (JUL 2015)			**14.1**	NE	0.0556	NE	**14.8**	NE	5.76	**0.117**
EPA RSL for Tap Water (MAY 2016)			14	**75**	5.6E-03	**0.2**	15	NE	5.8	0.1
WELL ID	**DATE SAMPLED**	**METHOD**								
SMW-2	9/9/2016	8260B/8270C	<0.01	6.9E-03	0.007	3.3E-03	<0.01	0.003	<0.01	4.6E-03
	8/18/2015	8260B/8270C	<0.01		<0.01		<0.01		<0.01	
	9/11/2014	8260B/8270C	<0.01		<0.011		<0.011		<0.11	
	9/9/2013	8260B/8270C	<0.01		<0.01		<0.01		<0.01	
	8/23/2012	8260B/8270C	<0.1		<0.01		<0.01		<0.01	
	10/12/2011	8260B	<0.01		NA		NA		NA	
	7/16/2010	8260B/8270C	<0.01		<0.0001		1.89E-03		<0.001	
SMW-4	9/7/2016	8260B/8270C	<0.01	9.9E-03	0.0038	4.9E-03	<0.01	5.4E-03	<0.01	
	8/14/2015	8260B/8270C	<0.01		<0.01		<0.01		<0.01	
	9/11/2014	8260B/8270C	<0.01		<0.01		<0.01		<0.01	
	9/9/2013	8260B/8270C	<0.01		<0.01		<0.01		<0.01	
	8/24/2012	8260B/8270C	<0.01		<0.01		<0.01		<0.01	
	10/10/2011	8260B	<0.01		NA		NA		NA	
	7/16/2010	8260B/8270C	<0.01		<0.0001		<0.0001		<0.001	
	3/1/2010 [1]	8260B/8270C	<0.0025		<0.005		<0.01		<0.01	

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) This was part of the 10 year RCRA Post Closure Sampling requirement, Total Recoverable Metals Analysis

8.4 OW-11, OW-12

BTEX Analytical Result Summary

STANDARDS			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED TAP WATER (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
Well ID	**DATE SAMPLED**	**METHOD**					
OW-11	9/9/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/17/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/12/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/16/2013	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/22/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/26/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/28/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
OW-12	9/8/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/14/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/12/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/10/2013	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/22/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/26/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/22/2010	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.4.1 OW-11, OW-12

General Chemistry Analytical Result Summary

STANDARDS			Parameters								
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	GRO (mg/L)	DRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	NE	**10**	NE	**600.0**	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	**10.0**	10	NE	NE	NE	NE	NE
NMED TAP WATER (JUL 2015)			1.18	ND	1.97	31.6	NE	NE	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			0.8	NE	2	32	**4.0E-04**	NE	NE	NE	NE
Well ID	**DATE SAMPLED**	**METHOD**									
OW-11	9/9/2016	300.0/8015D	1.6	100	1.7	1.7	<10	**900**	<0.05	<1.0	<5.0
	8/17/2015	300.0/8015D	**1.9**	100	2.1	2.1	<0.5	**880**	<0.05	<1.0	<5.0
	9/12/2014	300.0	**2.3**	77	<0.1	0.34	<0.5	**960**			
	9/16/2013	300.0	**2.6**	81	<0.1	0.34	<0.5	**960**			
	8/22/2012	300.0	**1.7**	82	<1.0	<1.0	<10	**940**			
	10/26/2011	300.0	**2.2**	95	<0.1	0.77	<0.5	**940**			
	7/28/2010	300.0	**2.8**	89	<0.1	0.3	<0.5	**1100**			
OW-12	9/8/2016	300.0/8015D	0.4	19	<1.0	<1.0	**0.37**	160	<0.05	<1.0	<5.0
	8/14/2015	300.0/8015D	0.49	18	<0.1	<0.1	<0.5	151	<0.06	<1.1	<5.1
	9/12/2014	300.0	0.47	19	<1.0	<1.0	<0.5	150			
	8/22/2012 [1]	300.0	0.48	16	<1.0	<1.0	<0.5	150			

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) General Chemistry analysis requested as part of the annual sampling

8.4.2 OW-11, OW-12

Total Metals Analytical Result Summary

STANDARDS			Parameters										
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	0.002	0.03	NE
NMED TAP WATER (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.4	9.2E-03	NE	0.8	14	0.015	0.43	0.1	6.3E-04	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**												
OW-11	9/9/2016	200.7/200.8	2.3E-03	8.0E-03	<0.002	<0.006	<0.006	<0.02	<0.0005	0.016	7.4E-03	9.5E-05	**0.18**	<0.01
	8/17/2015	200.7/200.8	<0.01	7.6E-03	<0.002	<0.006	<0.006	0.025	<0.0005	0.015	<0.01	<0.0002	**0.23**	<0.01
	9/12/2014	200.7/200.8	2.7E-03	8.3E-03	<0.002	<0.006	<0.006	0.047	<0.001	0.021	2.3E-03	<0.0002	**0.25**	<0.01
	9/16/2013	200.7/200.8	2.3E-03	8.4E-03	<0.002	<0.006	<0.006	0.028	<0.001	0.019	1.8E-03	<0.0002	**0.25**	<0.01
	8/22/2012	200.7/200.8	<0.0025	8.6E-03	<0.002	<0.006	<0.006	0.041	<0.005	0.095	3.2E-03	<0.0002	**0.22**	<0.01
	10/26/2011	200.7/200.8	<0.0025	7.7E-03	<0.002	<0.006	<0.006	<0.02	<0.005	0.016	0.003	<0.0002	**0.21**	<0.01
	7/28/2010	6010B	<0.02	<0.02	<0.002	<0.006	<0.006	<0.05	<0.005	0.016	<0.05	<0.0002	**0.236**	<0.02
OW-12	9/8/2016	200.7/200.8	2.1E-03	0.025	<0.002	5.5E-03	<0.006	0.11	2.8E-04	6.3E-03	8.0E-04	1.1E-04	0.012	<0.01
	8/14/2015	200.7/200.9	1.6E-03	0.023	<0.002	<0.006	<0.006	**1.078**	<0.0006	**1.0038**	<0.001	<0.0002	0.014	<0.02
	9/12/2014	200.7/200.8	2.1E-03	0.024	<0.002	<0.006	<0.006	0.12	<0.001	5.4E-03	1.1E-03	<0.0002	0.014	<0.01
	9/10/2013	200.7/200.8	1.9E-03	0.027	<0.002	<0.006	<0.006	0.17	<0.001	0.009	<0.001	<0.0002	0.013	<0.01
	8/22/2012 [1]	200.7/200.8	<0.0025	0.028	<0.002	<0.006	<0.006	0.29	<0.005	0.013	<0.0025	<0.0002	0.013	<0.01

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) Method 200.7/200.8 analysis requested as part of the annual sampling

8.4.3 OW-11, OW-12

Dissolved Metals Analytical Result Summary

			Parameters								
		STANDARDS	Arsenic (mg/L)	Barium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
		WQCC 20NMAC 6.2.3103	0.1	**1.0**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.03**	**10**
		40 CFR 141.62 MCL	**0.01**	2.0	NE	NE	**0.015**	NE	0.05	0.03	NE
		NMED TAP WATER (JUL 2015)	0.000513	3.28	0.79	13.8	NE	2.02	0.0987	0.0592	5.96
		EPA RSL for Tap Water (MAY 2016)	5.2E-05	0.38	0.8	14	0.015	0.43	0.1	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**									
OW-11	9/9/2016	200.7/200.8	2.1E-03	8.7E-03	<0.006	<0.02	<0.0005	0.015	8.1E-03	**0.18**	9.1E-03
	8/17/2015	200.7/200.8	<0.005	7.4E-03	<0.006	<0.02	<0.0025	0.015	8.3E-03	**0.21**	<0.01
	9/12/2014	200.7/200.8	2.6E-03	8.0E-03	<0.006	<0.02	<0.001	0.017	2.0E-03	**0.25**	<0.01
	9/16/2013	200.7/200.8	2.4E-03	8.4E-03	<0.006	<0.02	<0.001	0.019	2.4E-03	**0.23**	0.021
	8/22/2012	200.7/200.8	2.1E-03	8.4E-03	<0.006	<0.02	<0.005	0.012	3.4E-03	**0.21**	0.024
	10/26/2011	200.7/200.8	0.002	7.5E-03	<0.006	<0.02	<0.005	0.016	3.4E-03	**0.22**	0.11
	7/28/2010	6010B	<0.02	<0.02	<0.006	<0.02	<0.005	0.016	<0.05	**0.215**	<0.05
OW-12	9/8/2016	200.7/200.8	0.002	0.02	<0.006	0.047	2.1E-04	2.7E-03	9.4E-04	0.013	0.004
	8/14/2015	200.7/200.9	<0.006	**1.02**	<0.006	**1.043**	<0.0026	**1.003**	<0.006	0.012	<0.02
	9/12/2014	200.7/200.8	0.002	0.021	<0.006	0.037	<0.01	<0.002	1.1E-03	0.012	0.023
	9/10/2013	200.7/200.8	0.002	0.022	<0.006	0.048	<0.001	2.1E-03	<0.001	0.013	0.014
	8/22/2012 [1]	200.7/200.8	1.8E-03	0.021	<0.006	0.053	<0.005	3.3E-03	<0.001	0.012	0.031

DEFINITIONS

NE = Not established
NA = Not analyzed
Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) Method 200.7/200.8 analysis requested as part of the annual sampling

8.4.4 OW-11, OW-12

Semi Volatile Organic Compound Analytical Result Summary

			Parameters
			Bis (2-ethylhexyl) phthalate (mg/L)
STANDARDS			
WQCC 20NMAC 6.2.3103			NE
40 CFR 141.62 MCL			**0.006**
NMED TAP WATER (JUL 2015)			0.0556
EPA RSL for Tap Water (MAY 2016)			0.0056
WELL ID	**DATE SAMPLED**	**METHOD**	
OW-11	8/17/2015	8270C	<0.01
	9/12/2014	8270C	<0.01
	9/16/2013	8270C	**0.011**

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

85 OW-50, OW-52

BTEX Analytical Result Summary

STANDARDS			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED TAP WATER (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
Well ID	**DATE SAMPLED**	**METHOD**					
OW-50	9/9/2016	8260B	<0.001	<0.001	<0.001	<0.0015	2.4E-04
	8/11/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/15/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/4/2013 [1]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/27/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/23/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/13/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/22/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/15/2011	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	10/25/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/20/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/1/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/9/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/27/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/1/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/16/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
OW-52	9/9/2016	8260B	<0.001	<0.001	<0.001	<0.0015	4.6E-04
	8/11/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/15/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/4/2013 [1]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/27/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/23/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/13/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/22/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/13/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/25/2011	8021B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/20/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/1/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/9/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/27/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/1/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/16/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) *Beginning in 2013, sampling frequency changed to annual per concurrence by NMED in Comment 6 of NMED Disapproval Facility Wide Ground Water Monitoring Work Plan 2011 Updates 9/24/12.*

8.5.1 OW-50, OW-52

General Chemistry and DRO/GRO Analytical Result Summary

STANDARDS			Parameters							
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	NE	**10**	**600.0**	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	**10.0**	10	NE	NE	NE	NE
NMED TAP WATER (JUL 2015)			1.18	NE	1.97	31.6	NE	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			0.8	NE	2	32	NE	NE	NE	NE
Well ID	**DATE SAMPLED**	**METHOD**								
OW-50	9/9/2016	300.0/8015B	0.36	31	<1.0	<1.0	150	<1.0	<0.05	<5.0
	8/11/2015	300.0/8015B	0.47	31	<1.0	<1.0	150	<1.1	<0.06	<5.1
	9/15/2014	300.0/8015B	0.45	30	<0.1	<0.1	150	<1.0	<0.05	<5.0
	9/4/2013 [1]	300.0/8015B	0.5	26	2	2	140	<1.0	<0.05	<5.0
	11/27/2012	300.0/8015B	0.54	28	<1.0	<1.0	160	<1.0	<0.05	<5.0
	8/23/2012	300.0/8015B	0.42	26	<1.0	<1.0	140	<1.0	<0.05	<5.0
	6/13/2012	300.0/8015B	0.54	27	<1.0	<1.0	140	<1.0	<0.05	<5.0
	3/22/2012	300.0/8015B	0.59	27	<0.1	0.15	150	<1.0	<0.05	<5.0
	12/15/2011	300.0/8015B	0.49	25	<1.0	<1.0	140	<1.0	<0.05	<5.0
	10/25/2011	300.0/8015B	0.49	26	NL	NL	140	<1.0	<0.05	<5.0
	6/20/2011	300.0/8015B	0.53	28	<0.1	<0.1	150	<1.0	<0.05	<5.0
	3/1/2011	300.0/8015B	0.49	26	<0.1	<0.1	140	<1.0	<0.05	<5.0
	11/9/2010	300.0/8015B	0.51	29	<0.1	<0.1	160	<1.0	<0.05	NA
	9/27/2010	300.0/8015B	0.41	26	<0.1	<0.1	140	<1.0	<0.05	NA
	6/1/2010	300.0/8015B	0.53	27	<0.1	<0.1	140	<1.0	<0.05	NA
	3/16/2010	300.0/8015B	0.53	29	<0.1	<0.1	150	<1.0	<0.05	NA
OW-52	9/9/2016	300.0/8015B	0.38	27	<1.0	<1.0	140	<1.0	<0.05	<5.0
	8/11/2015	300.0/8015B	0.47	25	<1.0	<1.0	130	<1.1	<0.06	<5.1
	9/15/2014	300.0/8015B	0.5	27	<0.1	<0.1	130	<1.0	<0.05	<5.0
	9/4/2013 [1]	300.0/8015B	0.5	27	4.6	4.6	140	<1.0	<0.05	<5.0
	11/27/2012	300.0/8015B	0.64	28	<1.0	<1.0	140	<1.0	<0.05	<5.0
	8/23/2012	300.0/8015B	0.49	25	<1.0	<1.0	120	<1.0	<0.05	<5.0
	6/13/2012	300.0/8015B	0.58	27	<1.0	<1.0	140	<1.0	<0.05	<5.0
	3/22/2012	300.0/8015B	0.56	26	<0.1	<0.1	130	<1.0	<0.05	<5.0
	12/13/2011	300.0/8015B	<0.5	27	<1.0	<1.0	130	<1.0	<0.05	<5.0
	10/25/2011	300.0/8015B	0.4	20	1.3	1.3	100	<1.0	<0.05	<5.0

8.5.1 OW-50, OW-52

General Chemistry and DRO/GRO Analytical Result Summary

STANDARDS			Parameters							
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	NE	**10**	**600.0**	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	**10.0**	10	NE	NE	NE	NE
NMED TAP WATER (JUL 2015)			1.18	NE	1.97	31.6	NE	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			0.8	NE	2	32	NE	NE	NE	NE
Well ID	**DATE SAMPLED**	**METHOD**								
OW-52	6/20/2011	300.0/8015B	0.56	24	<0.1	<0.1	140	<1.0	<0.05	<5.0
	3/1/2011	300.0/8015B	0.57	25	<0.1	<0.1	130	<1.0	<0.05	<5.0
	11/9/2010	300.0/8015B	0.54	32	<0.1	<0.1	140	<1.0	<0.05	NA
	9/27/2010	300.0/8015B	0.52	27	<0.1	<0.1	140	<1.0	<0.05	NA
	6/1/2010	300.0/8015B	0.52	28	<0.1	<0.1	140	<1.0	<0.05	NA
	3/16/2010	300.0/8015B	0.56	31	<0.1	<0.1	150	<1.0	<0.05	NA

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) *Sampling frequency changed to annual per concurrence by NMED in Comment 6 of NMED Disapproval Facility Wide Ground Water Monitoring Work Plan 2011 Updates, 9/24/12.*

8.5.2 OW-50, OW-52

Total Metals Analytical Result Summary

STANDARDS			Parameters											
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.002	0.03	NE
NMED TAP WATER (JUL 2015)			0.000513	3.3	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.4	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.094	6.30E-04	0.06	6
Well ID	DATE SAMPLED	METHOD													
OW-50	9/9/2016	200.7/200.8	2.1E-03	0.087	<0.002	<0.006	<0.006	0.68	8.7E-04	0.12	1.5E-03	<0.005	9.6E-05	0.01	2.7E-03
	8/11/2015	200.7/200.9	1.9E-03	0.14	<0.002	<0.006	<0.006	0.68	2.4E-03	0.14	<0.001	<0.005	<0.0002	0.011	0.017
	9/15/2014	200.7/200.8	1.9E-03	0.075	<0.002	<0.006	<0.006	0.18	<0.001	0.11	1.0E-03	<0.005	<0.0002	0.01	<0.01
	9/4/2013	200.7/200.8	1.8E-03	0.058	<0.002	<0.006	<0.006	0.6	2.1E-03	0.11	<0.001	<0.005	<0.0002	8.4E-03	0.013
	11/27/2012	200.7/200.8	<0.0025	0.12	<0.002	<0.006	<0.006	**1.3**	<0.005	0.12	<0.0025	<0.005	<0.0002	9.6E-03	<0.01
	8/23/2012	200.7/200.8	<0.0025	0.043	<0.002	<0.006	8.6E-03	0.071	<0.005	0.058	<0.0025	<0.005	<0.0002	0.008	0.011
	6/13/2012	200.7/200.8	<0.0025	0.081	<0.002	<0.006	<0.006	0.89	<0.005	0.1	<0.0025	<0.005	<0.0002	7.4E-03	<0.01
	3/22/2012	200.7/200.8	<0.0025	0.029	<0.002	<0.006	<0.006	0.31	<0.005	0.035	<0.0025	<0.005	<0.0002	0.011	<0.01
	12/15/2011	200.7/200.8	<0.0025	0.07	<0.002	<0.006	<0.006	0.51	<0.005	0.095	<0.0025	<0.005	<0.0002	8.7E-03	<0.01
	10/25/2011	200.7/200.8	<0.0025	0.041	<0.002	<0.006	<0.006	0.022	<0.005	0.082	<0.0025	<0.005	<0.002	7.2E-03	<0.01
	6/20/2011	200.7/200.8	<0.0025	0.046	<0.002	<0.006	<0.006	0.16	<0.005	0.085	<0.0025	<0.005	<0.0002	7.1E-03	<0.01
	3/1/2011	200.7/200.8	0.003	0.045	<0.002	<0.006	<0.006	0.24	<0.005	0.086	<0.05	<0.005	<0.0002	7.2E-03	<0.01
	11/9/2010	200.7/200.8	3.1E-03	0.038	<0.002	<0.006	<0.006	<0.02	<0.005	0.079	5.5E-03	<0.005	<0.0002	NA	0.02
	9/27/2010	6010B	<0.02	0.041	<0.002	<0.006	<0.006	0.15	<0.005	0.032	<0.05	<0.005	<0.0002	0.006	<0.02
	6/1/2010	6010B	<0.02	0.042	<0.002	<0.006	NA	NA	<0.005	NA	<0.05	<0.005	<0.0002	NA	<0.02
	3/16/2010	6010B	<0.02	0.038	<0.002	<0.006	<0.006	<0.05	<0.005	0.079	<0.05	<0.005	<0.0002	6.26E-03	<0.02
OW-52	9/9/2016	200.7/200.8	9.6E-04	0.032	<0.002	<0.006	<0.006	0.15	8.6E-05	0.03	8.4E-04	<0.005	9.4E-05	0.01	<0.01
	8/11/2015	200.7/200.9	<0.002	**1.031**	<0.002	<0.006	<0.006	**1.17**	<0.0006	**1.033**	<0.001	<0.005	<0.0002	**1.012**	<0.02
	9/15/2014	200.7/200.8	<0.001	0.032	<0.002	<0.006	<0.006	0.31	<0.001	0.036	<0.001	<0.005	<0.0002	0.011	<0.01
	9/4/2013	200.7/200.8	<0.001	0.029	<0.002	<0.006	<0.006	0.22	<0.001	0.043	<0.001	<0.005	<0.0002	0.011	<0.01
	11/27/2012	200.7/200.8	<0.0025	0.029	<0.002	<0.006	<0.006	0.15	<0.005	0.029	<0.0025	<0.005	<0.0002	0.011	<0.01
	8/23/2012	200.7/200.8	<0.0025	0.029	<0.002	<0.006	0.014	0.3	<0.005	0.026	<0.0025	<0.005	<0.0002	7.6E-03	0.012
	6/13/2012	200.7/200.8	<0.0025	0.028	<0.002	<0.006	<0.006	0.17	<0.005	0.027	<0.0025	<0.005	<0.0002	0.01	<0.01
	3/22/2012	200.7/200.8	<0.0025	0.072	<0.002	<0.006	<0.006	0.52	<0.005	0.094	<0.0025	<0.005	<0.0002	7.6E-03	<0.01
	12/13/2011	200.7/200.8	<0.0025	0.034	<0.002	6.9E-03	<0.006	0.43	<0.005	0.039	<0.0025	<0.005	<0.0002	0.01	<0.01
	10/25/2011	200.7/200.8	<0.0025	0.025	<0.002	<0.006	<0.006	0.13	<0.005	0.032	<0.0025	<0.005	<0.0002	0.01	<0.01
	6/20/2011	200.7/200.8	<0.0025	0.026	<0.002	<0.006	<0.006	0.11	<0.005	0.036	<0.0025	<0.005	<0.002	0.012	<0.01
	3/1/2011	200.7/200.8	<0.0025	0.027	<0.002	<0.006	<0.006	0.35	<0.005	0.044	<0.05	<0.005	NA	3.6E-03	<0.01
	11/19/2010	200.7/200.8	<0.0025	0.026	<0.002	<0.006	<0.006	0.056	<0.005	0.028	4.6E-03	<0.005	<0.0002	NL	<0.01
	9/27/2010	6010B	<0.02	0.025	<0.002	<0.006	<0.006	0.065	<0.005	0.03	<0.05	<0.005	<0.0002	0.01	<0.02
	6/1/2010	6010B	<0.02	0.024	<0.002	<0.006	NA	NA	<0.005	NA	<0.05	<0.005	<0.0002	NA	NA
	3/16/2010	6010B	<0.02	0.027	<0.002	<0.006	<0.006	0.15	<0.005	0.032	<0.05	<0.005	<0.0002	1.03E-02	<0.02

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.5.3 OW-50, OW-52

Dissolved Metals Analytical Result Summary

STANDARDS			Parameters										
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**NE**	NE	1.3	NE	**0.015**	NE	0.05	NE	0.03	NE
NMED TAP WATER (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.094	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**												
OW-50	9/9/2016	200.7/200.8	2.3E-03	0.055	<0.002	<0.006	<0.006	0.68	<0.0005	0.12	1.4E-03	<0.005	0.012	2.7E-03
	8/11/2015	200.7/200.9	<0.006	**1.048**	<0.003	<0.006	<0.006	<0.02	<0.0025	**1.089**	<0.005	<0.005	0.01	<0.02
	9/15/2014	200.7/200.8	2.4E-03	0.047	<0.002	<0.006	<0.006	<0.02	<0.001	0.091	1.7E-03	<0.005	9.8E-03	<0.01
	9/4/2013	200.7/200.8	<0.005	0.042	<0.002	<0.006	<0.006	<0.02	<0.005	0.1	<0.005	<0.005	<0.01	<0.01
	11/27/2012	200.7/200.8	1.9E-03	0.052	<0.002	<0.006	<0.006	0.41	<0.005	0.093	<0.001	<0.005	9.3E-03	0.012
	8/23/2012	200.7/200.8	1.9E-03	0.04	<0.002	<0.006	<0.006	<0.02	<0.005	0.051	<0.001	<0.005	7.7E-03	0.014
	6/13/2012	200.7/200.8	1.9E-03	0.041	<0.002	<0.006	<0.006	<0.02	<0.005	0.081	<0.001	<0.005	8.5E-03	0.012
	3/22/2012	200.7/200.8	1.9E-03	0.041	<0.002	<0.006	<0.006	<0.02	<0.005	0.082	<0.001	<0.005	7.6E-03	0.039
	12/15/2011	200.7/200.8	1.8E-03	0.04	<0.002	<0.006	<0.006	<0.1	<0.005	0.079	<0.001	<0.005	8.1E-03	<0.01
	10/25/2011	200.7/200.8	1.9E-03	0.041	<0.002	<0.006	<0.006	<0.02	<0.005	0.082	<0.001	<0.005	7.4E-03	<0.01
	6/20/2011	200.7/200.8	2.2E-03	NA	<0.002	<0.006	NA	<0.02	<0.005	0.088	1.3E-03	<0.005	7.5E-03	0.021
	3/1/2011	200.7/200.8	2.6E-03	0.039	<0.002	<0.006	<0.006	<0.02	<0.005	0.082	<0.05	<0.005	6.9E-03	0.081
	11/9/2010	200.7/200.8	NA	0.037	<0.002	<0.006	<0.006	<0.02	<0.005	0.078	1.4E-03	<0.005	NA	<0.01
	9/27/2010	6010B	<0.02	0.04	<0.002	<0.006	<0.006	<0.02	<0.005	0.081	<0.05	<0.005	0.006	0.064
	6/1/2010	6010B	<0.02	0.04	<0.002	<0.006	<0.006	<0.02	<0.005	0.083	<0.05	<0.005	NA	<0.05
	3/16/2010	6010B	<0.02	0.036	<0.002	<0.006	<0.006	<0.02	<0.005	0.076	<0.05	<0.005	6.41E-03	<0.05
OW-52	9/9/2016	200.7/200.8	8.6E-04	0.028	<0.002	<0.006	<0.006	0.05	<0.0005	0.026	<0.005	<0.005	0.011	<0.01
	8/11/2015	200.7/200.9	<0.006	**1.027**	<0.003	<0.006	<0.006	**1.035**	<0.0026	0.031	<0.005	<0.005	0.011	<0.02
	9/15/2014	200.7/200.8	<0.001	0.029	<0.002	<0.006	<0.006	0.051	<0.001	0.026	1.2E-03	<0.005	0.011	<0.01
	9/4/2013	200.7/200.8	<0.005	0.026	<0.002	<0.006	<0.006	0.063	<0.005	0.038	<0.005	<0.005	0.011	<0.01
	11/27/2012	200.7/200.8	<0.001	0.027	<0.002	<0.006	<0.006	0.066	<0.005	0.025	<0.001	<0.005	0.011	0.011
	8/23/2012	200.7/200.8	<0.001	0.022	<0.002	<0.006	<0.006	<0.02	<0.005	5.4E-03	<0.001	<0.005	7.2E-03	0.039
	6/13/2012	200.7/200.8	<0.001	0.026	<0.002	<0.006	<0.006	0.076	<0.005	0.023	<0.001	<0.005	0.011	0.023
	3/22/2012	200.7/200.8	<0.001	0.025	<0.002	<0.006	<0.006	0.071	<0.005	0.03	<0.001	<0.005	0.01	0.084
	12/13/2011	200.7/200.8	<0.001	0.025	<0.002	<0.006	<0.006	0.08	<0.005	0.025	<0.001	<0.005	0.01	<0.01
	10/25/2011	200.7/200.8	<0.001	0.025	<0.002	<0.006	<0.006	0.12	<0.005	0.031	<0.001	<0.005	0.011	<0.01
	6/20/2011	200.7/200.8	<0.001	NA	<0.002	<0.006	NA	0.12	<0.005	0.037	1.5E-03	<0.005	0.013	0.024
	3/1/2011	200.7/200.8	<0.001	0.36	<0.02	<0.006	<0.006	0.064	<0.005	**0.68**	<0.05	<0.005	7.1E-03	<0.01
	11/9/2010	200.7/200.8	NA	0.025	<0.02	<0.006	<0.006	0.048	<0.005	0.027	NA	<0.005	NA	<0.01
	9/27/2010	6010B	<0.02	0.026	<0.002	<0.006	<0.006	0.058	<0.005	0.031	<0.05	<0.005	0.009	0.079
	6/1/2010	6010B	<0.02	0.026	<0.002	<0.006	<0.006	0.058	<0.005	0.032	<0.05	<0.005	9.26E-03	<0.05
	3/16/2010	6010B	<0.02	0.023	<0.002	<0.006	<0.006	0.034	<0.005	0.028	<0.05	<0.005	9.2E-03	<0.05

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.5.4 OW-50, OW-52

Semi Volatile Organic Compound Analytical Result Summary

STANDARDS			Parameters		
			Benzoic Acid (mg/L)	Bis(2-ethylhexyl)phthalate (mg/L)	1,2-Dichloroethane (EDC)
WQCC 20NMAC 6.2.3103			NE	NE	0.01
40 CFR 141.62 MCL			NE	**0.006**	**0.005**
NMED TAP WATER (JUL 2015)			NE	0.0556	0.0275
EPA RSL for Tap Water (MAY 2016)			**75**	0.0056	0.017
Well ID	**DATE SAMPLED**	**METHOD**			
OW-50	9/9/2016	8260B	NA	NA	5.0E-04
	8/11/2015	8270C/8260B	<0.02	<0.01	
	9/15/2014	8270C	<0.02	<0.01	
	9/4/2013	8270C	<0.04	<0.01	
	12/5/2012 [1]	8270C	<0.02	<0.01	
	8/23/2012	8270C	<0.02	<0.01	
	6/13/2012	8270C	<0.02	<0.01	
	3/22/2012	8270C	<0.02	<0.01	
	12/15/2011	8270C	<0.02	<0.01	
	10/25/2011	8270C	<0.02	<0.01	
	6/20/2011	8270C	<0.02	<0.01	
	3/1/2011	8270C	<0.02	<0.01	
	11/9/2010	8270C	<0.02	<0.01	
	9/27/2010	8270C	<0.02	<0.01	
	6/1/2010	8270C	<0.02	<0.01	
	3/16/2010	8270C	0.02	**0.011**	
	11/17/2009	8270C	<0.02	<0.01	
OW-52	9/9/2016	8270C/8260B	NA	NA	4.9E-04

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) Sampled for 8270C only. Samples not collected for this analysis during the 4th quarter sampling.

8.6 PW-2, PW-3, PW-4

BTEX Analytical Result Summary

STANDARDS			Parameters												
			Benzene (mg/L)	Toluene (mg/L)	Ethyl benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE	NE	**10**	**1.6**	**250.0**	**600**	NE	NE	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE	**10.0**	10	4.0	NE	NE	NE	NE	NE
NMED TAP WATER (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**	1.97	31.6	1.18	NE	NE	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014	2	32	0.8	NE	NE	NE	NE	NE
Well ID	**DATE SAMPLED**	**METHOD**													
PW-2	9/10/2014	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.001	NL	0.12						
	12/15/2011 [1]	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.001	NL	0.15						
	10/26/2011	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.001	<0.1	<0.1						
	9/12/2008	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.01	<1.0	<1.0						
PW-3	8/31/2016	8260B/300.0	<0.001	<0.001	<0.001	<0.0015	<0.001	<1.0	<1.0	NA	NA	NA	NA	NA	NA
	8/23/2015	8260B/300.0	<0.001	<0.001	<0.001	<0.0015	<0.001	<1.0	<1.0	0.16	31	**750**	<1.0	<0.05	<5.0
	9/10/2014	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.001	NL	<0.1						
	9/10/2013	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.001	NL	0.15						
	8/24/2012	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.001	<1.0	<1.0						
	10/31/2011	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.01	NL	<0.1						
	9/23/2010	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.01	<1.0	<1.0						
	8/21/2008	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.01	<0.01	0.13						
	1/1/2008	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.01	<0.2	<0.2						
PW-4	8/31/2016	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.001	NL	<1.0						
	6/10/2016 [2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	NA	NA						
	9/10/2013	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.001	NA	0.19						
	7/28/2010	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.001	<0.01	0.14						
	9/12/2008	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.01	<0.01	<0.02						

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) Re-sampled on 12/15/2011 due to detection of PCE during the Annual sampling event on 10/26/2011.

2) Per NMED directive - sampling of PW-4 switched to semi-annual beginning in the second quarter of 2016.

8.6.1 PW-2, PW-3, PW-4

Total Metals Analytical Result Summary

STANDARDS			Parameters											
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Cyanide (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.002**	**0.2**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	0.002	0.2	0.03	NE
NMED TAP WATER (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.000626	0.00146	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	6.30E-04	1.5E-02	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**													
PW-2	9/10/2014	200.7/200.8	3.3E-03	0.014	<0.002	<0.006	<0.006	0.05	<0.001	<0.002	1.4E-03	<0.0002	<0.01	2.4E-03	<0.01
	12/15/2011 [1]	200.7/200.8	5.5E-03	0.12	<0.002	<0.006	<0.006	0.74	<0.005	0.011	<0.0025	<0.0002	<0.01	<0.0025	<0.01
	10/26/2011 [1]	200.7/200.8	<0.0025	0.016	<0.002	<0.006	<0.006	0.29	<0.005	0.058	<0.0025	<0.0002	<0.01	<0.0025	<0.01
	9/12/2008	6010B	<0.02	0.013	<0.002	<0.006	<0.006	0.07	<0.005	<0.002	<0.05	<0.0002	<0.01	1.6E-03	<0.05
PW-3	8/31/2016	200.7/200.8	4.1E-03	0.011	<0.002	<0.006	<0.006	0.24	2.5E-04	1.6E-03	1.7E-03	NL	<0.01	1.7E-03	7.2E-03
	8/23/2015	200.7/200.8	3.5E-03	0.01	<0.002	<0.006	<0.006	0.079	<0.0005	<0.002	1.2E-03	<0.0002	<0.01	1.7E-03	<0.01
	9/10/2014	200.7/200.8	3.9E-03	0.011	<0.002	<0.006	<0.006	0.3	<0.001	2.5E-03	1.9E-03	<0.0002	<0.01	1.6E-03	0.01
	9/10/2013	200.7/200.8	3.8E-03	0.011	<0.002	<0.006	<0.006	0.2	<0.001	2.2E-03	1.1E-03	<0.0002	<0.01	1.5E-03	0.014
	8/24/2012	200.7/200.8	0.004	0.011	<0.002	<0.006	<0.006	0.24	<0.005	<0.002	<0.0025	<0.0002	8.5E-03	<0.0025	0.027
	10/31/2011	200.7/200.8	3.5E-03	0.01	<0.002	<0.006	<0.006	0.09	<0.005	0.003	1.2E-03	<0.0002	<0.01	1.4E-03	0.023
	9/23/2010	6010B	<0.02	<0.02	<0.002	<0.006	0.032	0.47	7.4E-03	4.6E-03	<0.05	<0.0002	<0.005	0.001	0.037
	8/21/2008	6010B	<0.02	<0.02	<0.002	<0.006	<0.006	<0.05	<0.005	<0.0002	<0.25	<0.0002	<0.004	<6.3E-04	<0.05
	1/1/2008	6010B	<0.02	0.014	<0.002	<0.006	<0.006	0.2	5.6E-03	0.015	<0.5	<0.0002	<0.01	<0.1	0.041
PW-4	8/31/2016	6010B	3.7E-03	0.014	<0.002	<0.006	<0.006	0.14	<0.005	1.2E-03	1.6E-03	NL	<0.01	1.8E-03	3.6E-03
	6/10/2016	200.7/200.8	3.6E-03	0.014	<0.002	<0.006	<0.006	0.26	<0.0005	2.5E-03	1.3E-03	<0.0002	<0.01	1.6E-03	<0.01
	9/10/2013	6010B	2.9E-03	0.014	<0.002	<0.006	<0.006	**1.5**	<0.001	0.014	1.2E-03	<0.0002	<0.01	1.7E-03	0.025
	7/28/2010	6010B	<0.02	<0.02	<0.002	<0.006	<0.006	0.23	<0.005	4.4E-03	<0.05	<0.0002	<0.01	2.1E-03	<0.02
	9/12/2008	6010B	<0.02	0.013	<0.002	<0.006	<0.006	0.11	<0.005	0.005	<0.05	<0.0002	<0.01	1.4E-03	<0.02

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) PW-2 was re-sampled on 12/15/2011 due to detection of PCE during the Annual sampling event on 10/26/2011.

8.6.2 PW-2, PW-3, PW-4

Dissolved Metals Analytical Result Summary

STANDARDS			Parameters									
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	0.03	NE
NMED TAP WATER (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**											
PW-2	9/10/2014	200.7/200.8	3.1E-03	0.012	<0.002	<0.006	<0.006	0.042	<0.001	<0.002	1.4E-03	2.4E-03	0.012
	12/15/2011 [1]	200.7/200.8	2.7E-03	0.014	<0.002	<0.006	<0.006	0.23	<0.005	0.006	<0.001	1.9E-03	0.053
	10/26/2011	200.7/200.8	<0.001	0.016	<0.002	<0.006	<0.006	<0.02	<0.005	0.06	<0.001	2.2E-03	0.045
	9/12/2008	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PW-3	8/31/2016	200.7/200.8	3.5E-03	0.011	<0.002	<0.006	<0.006	0.092	<0.0005	1.4E-03	1.8E-03	1.5E-03	0.011
	8/23/2015	200.7/200.8	3.4E-03	0.011	<0.002	<0.006	<0.006	0.034	<0.0005	<0.002	1.4E-03	1.6E-03	<0.01
	9/10/2014	200.7/200.8	3.9E-03	0.011	<0.002	<0.006	<0.006	0.13	<0.001	<0.002	2.0E-03	1.6E-03	0.011
	9/10/2013	200.7/200.8	3.7E-03	0.011	<0.002	<0.006	<0.006	0.28	<0.001	3.6E-03	1.4E-03	1.6E-03	0.029
	8/24/2012	200.7/200.8	3.4E-03	0.011	<0.002	<0.006	<0.006	0.042	<0.005	<0.002	1.2E-03	1.5E-03	0.03
	10/31/2011	200.7/200.8	3.3E-03	0.011	<0.002	<0.006	<0.006	0.079	<0.005	3.5E-03	1.2E-03	1.4E-03	0.06
	9/23/2010	6010B	<0.02	<0.02	<0.002	<0.006	<0.006	0.098	<0.005	<0.002	<0.05	0.001	<0.05
	8/23/2008	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/1/2008	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PW-4	8/31/2016	200.7/200.8	2.9E-03	0.014	<0.002	<0.006	<0.006	0.061	<0.0005	9.8E-04	1.8E-03	1.5E-03	<0.01
	6/10/2016	200.7/200.8	0.003	0.014	<0.002	<0.006	<0.006	0.11	<0.0005	1.2E-03	1.7E-03	1.6E-03	<0.01
	9/10/2013	200.7/200.8	0.003	0.014	<0.002	<0.006	<0.006	0.12	<0.001	0.007	1.2E-03	1.6E-03	<0.01
	7/28/2010	6010B	<0.02	<0.02	<0.002	<0.006	<0.006	0.09	<0.005	3.6E-03	<0.05	1.46E-03	0.086
	9/12/2008	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

DEFINITIONS

NE = Not established
NA = Not analyzed
Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) PW-2 was re-sampled on 12/15/2011 due to detection of PCE during the Annual sampling event on 10/26/2011.
In the field blank submitted with the 10/26/11 sampling, toluene was detected at 0.0017 ppm.

8.6.3 PW-2, PW-3, PW-4

Volatile and Semi Volatile Organic Compound Analytical Result Summary

STANDARDS			Parameters															
			Bis(2-ethylhexyl) phthalate (mg/L)	Di-n-octyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Tetrachloroethene (PCE) (mg/L)	1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	n-Propyl benzene (mg/L)	Benzoic acid (mg/L)	Diethyl phthalate (mg/L)	Dimethyl phthalate (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	**0.005**	0.02	NE	NE	NE	NE	NE	NE	NE	NE	NE
40 CFR 141.62 MCL			**0.006**	NE	NE	NE	NE	NE	NE	**0.005**	NE	NE	NE	NE	NE	NE	NE	NE	NE
NMED TAP WATER (JUL 2015)			0.0556	NE	**0.354**	NE	NE	**0.17**	5.76	NE	NE	NE	**0.00165**	NE	NE	NE	NE	**14.8**	NE
EPA RSL for Tap Water (MAY 2016)			0.0056	**0.2**	0.36	**0.93**	**0.93**	NE	5.8	1.1E-02	**0.015**	**0.12**	0.00017	**0.0011**	**0.036**	**0.66**	**75**	15	NE
Well ID	**DATE SAMPLED**	**METHOD**																	
PW-2	9/10/2014	8270C/8260B			<0.01	<0.02	<0.01	<0.01	<0.01	<0.001					<0.01				
	12/15/2011 [3]	8270C/8260B			<0.01	<0.01	<0.01	<0.01	<0.01	<0.001					<0.01				
	10/26/2011	8270C/8260B			<0.01	<0.01	<0.01	<0.01	<0.01	**7.3E-03 [2]**					<0.004				
PW-3	8/31/2016	8270C/8260B	4.1E-03	4.3E-03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001					<0.01		8.5E-03	3.7E-03	7.9E-03
	8/23/2015	8270C/8260B			<0.01	<0.01	<0.01	<0.01	<0.01	<0.001					<0.01				
	9/10/2014	8270C/8260B			<0.01	<0.01	<0.01	<0.01	<0.01	<0.001					<0.01				
	9/10/2013	8270C/8260B			<0.01	<0.01	<0.01	<0.01	<0.01	<0.001					<0.01				
	8/24/2012	8270C/8260B			<0.01	<0.01	<0.01	<0.01	<0.01	<0.001					<0.01				
	10/31/2011	8270C/8260B			<0.01	<0.01	<0.01	<0.01	<0.01						<0.01				
	11/1/2010	8270C			<0.01	<0.01	<0.01	<0.01	<0.01						<0.01				
	9/23/2010	8270C			<0.01	<0.01	<0.01	<0.01	<0.01						<0.01				
	8/21/2008	8270C			<0.01	<0.01	<0.01	<0.01	<0.01						<0.01				
	1/1/2008 [1]	8270C			0.016	0.21	0.36	0.017	**0.8**						0.032				
PW-4	8/31/2016	8270	3.1E-03	3.8E-03						<0.001	<0.001	<0.002	<0.004	<0.004	<0.001	8.7E-03	2.9E-03	6.4E-03	
	6/10/2016	8270C/8260B	3.8E-03	5.4E-03						4.5E-04	3.1E-04	4.8E-04	7.2E-04	8.3E-04	<0.001				
	9/9/2013	8260B								6.8E-03 [4]	2.3E-03 [4]				1.3E-03 [4]				

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) Due to inclement weather conditions in December 2007, the 2007 annual sampling was completed in January 2008.

2) PW-2: Detected for the first time. In the field blank submitted, toluene was detected at 0.0017 mg/L.

3) PW-2 was re-sampled due to the detection of PCE in the 10/26/2011 sample.

4) PW-4: Detected for the first time.

8.7 GWM-1, GWM-2, GWM-3

BTEX Analytical Result Summary

			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL (NOV 2015)			**0.005**	1.0	**0.7**	10	NE
NMED Tap Water (JUL 2015)			0.00454	1.1	0.0149	0.193	**0.143**
EPA RSL for Tap Water (NOV 2015)			4.5E-04	0.11	1.5E-03	0.019	0.014
Well ID	**DATE SAMPLED**	**METHOD**					
GWM-1	10/29/2015	8260B	NO SAMPLES COLLECTED - HAS AN SPH LEVEL				
	8/24/2015	8260B	**8.5E-03**	0.033	0.011	0.11	0.04
	6/2/2015	8021B	**0.012**	3.3E-03	5.6E-03	0.024	0.051
	3/10/2015	8021B	**0.011**	2.2E-03	5.1E-03	0.021	0.049
	11/13/2014	8260B	**0.012**	<0.005	5.7E-03	0.023	0.05
	9/12/2014	8260B	**0.01**	3.1E-03	4.0E-03	0.016	0.041
	6/5/2014	8260B	**0.011**	2.1E-03	4.8E-03	0.019	0.051
	3/11/2014	8260B	**8.8E-03**	2.2E-03	3.7E-03	0.015	0.039
	11/11/2013	8260B	**0.008**	2.3E-03	3.8E-03	0.014	0.039
	9/3/2013	8260B	**0.008**	<0.005	<0.005	0.016	0.035
	6/12/2013	8260B	**7.7E-03**	4.8E-03	3.9E-03	0.018	0.04
	3/18/2013	8260B	**9.8E-03**	<0.005	<0.005	0.018	0.043
	11/28/2012	8260B	<0.01	<0.01	<0.01	<0.015	0.052
	8/21/2012	8260B	**7.8E-03**	2.4E-03	3.5E-03	0.015	0.044
	6/12/2012	8260B	**5.3E-03**	1.4E-03	2.5E-03	9.4E-03	0.04
	3/20/2012	8260B	**5.7E-03**	<0.001	1.9E-03	0.007	0.054
	12/14/2011	8260B	**8.5E-03**	1.9E-03	4.2E-03	0.014	0.054
	9/26/2011	8260B	**9.6E-03**	5.2E-03	5.9E-03	0.03	0.051
	6/15/2011	8260B	**7.4E-03**	2.7E-03	5.3E-03	0.026	0.047
	2/16/2011	8260B	**9.5E-03**	3.4E-03	5.4E-03	0.023	0.057
	11/2/2010	8260B	**6.9E-03**	2.3E-03	3.5E-03	0.022	0.062
	9/16/2010	8260B	**7.5E-03**	4.9E-03	6.7E-03	0.03	0.053
	7/20/2010	8260B	**0.008**	0.002	6.8E-03	0.03	0.077
	3/3/2010[2]	8260B	**0.012**	0.005	0.011	0.05	0.078
GWM-2	2015-2014		Dry				
	11/11/2013		Not enough water for sampling				
	9/3/2013	8260B	<0.001	<0.001	<0.001	<0.0015	2.3E-03
	6/12/2013	8260B	<0.001	<0.001	<0.001	<0.0015	2.6E-03
	3/18/2013	8260B	<0.001	<0.001	<0.001	<0.0015	0.002
	11/28/2012	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	8/21/2012	8260B	<0.001	<0.001	<0.001	<0.0015	2.6E-03
	6/12/2012	8021B	<0.005	<0.005	<0.005	<0.01	<0.012
	3/20/2012	8021B	<0.005	<0.005	<0.005	<0.01	<0.012
	12/14/2011	8021B	<0.001	<0.001	<0.001	<0.001	2.7E-03
	9/26/2011	8021B	<0.001	<0.001	<0.001	<0.002	2.6E-03
	6/15/2011	8260B	<0.001	<0.001	<0.001	<0.0015	0.003
	2/16/2011	8260B	<0.001	<0.001	<0.001	<0.0015	8.3E-03
	10/4/2010	8260B	<0.001	<0.001	<0.001	<0.003	0.011
	9/16/2010	8260B	<0.001	<0.001	<0.001	<0.003	0.011
GWM-3	2015-2013		No Samples - DRY				
	11/28/2012	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025

8.7 GWM-1, GWM-2, GWM-3

BTEX Analytical Result Summary

			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL (NOV 2015)			**0.005**	1.0	**0.7**	10	NE
NMED Tap Water (JUL 2015)			0.00454	1.1	0.0149	0.193	**0.143**
EPA RSL for Tap Water (NOV 2015)			4.5E-04	0.11	1.5E-03	0.019	0.014
Well ID	**DATE SAMPLED**	**METHOD**					
GWM-3	8/21/2012	8260B	<0.001	<0.001	<0.001	<0.0015	1.5E-03
	6/12/2012	8021B	<0.005	<0.005	<0.005	<0.01	<0.012
	3/20/2012	8021B	<0.005	<0.005	<0.005	<0.01	<0.012
	12/14/2011	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	9/26/2011	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	6/15/2011	8260B	<0.001	<0.001	<0.001	<0.0015	0.002
	2/16/2011	8260B	<0.001	<0.001	<0.001	<0.0015	8.1E-03
	10/4/2010	8260B	<0.001	<0.001	<0.001	<0.003	9.2E-03
	9/16/2010	8260B	<0.001	<0.001	<0.001	<0.003	0.009

DEFINITIONS

NE = Not established
NA = Not analyzed
Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1 (Jul 2015)

NOTES

8.7.1 GWM-1, GWM-2, GWM-3

General Chemistry and DRO/GRO Analytical Result Summary

			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	NE	**10**	NE	NE	NE
40 CFR 141.62 MCL (NOV 2015)			NE	NE	**10**	10	NE	NE	NE
NMED Tap Water (JUL 2015)			1.18	NE	1.97	31.6	NE	NE	NE
EPA RSL for Tap Water (NOV 2015)			0.08	NE	0.2	3.2	NE	NE	NE
Well ID	**DATE SAMPLED**	**METHOD**							
GWM-1	10/29/2015		NO SAMPLES COLLECTED - HAS AN SPH LEVEL						
	9/23/2015 [1]	8015D	NA	NA	NA	NA	68	<2.5	18
	8/24/2015	300.0/8015D	**2.6**	**1100**	<1.0	<1.0	250	1.2	<50
	6/2/2015	300.0/8015D	**2.7**	**1100**	<2.0	<2.0	1.7	NA	<5.0
	3/10/2015	300.0/8015D	**2.2**	**1000**	<0.5	<0.5	2.4	0.49	<5.0
	11/13/2014	300.0/8015B	**1.8**	**1000**	<1.0	<1.0	2.3	0.5	<5.0
	9/12/2014	300.0/8015B	**2.4**	**910**	<1.0	<1.0	2.1	0.51	<5.0
	6/5/2014	300.0/8015B	**2.2**	**890**	<1.0	<1.0	3.4	0.56	<5.0
	3/11/2014	300.0/8015B	**2.6**	**930**	<1.0	<1.0	3.3	0.66	<5.0
	11/11/2013	300.0/8015B	**2.3**	**1000**	4.1	4.1	7.1	0.49	NA
	9/3/2013	300.0/8015B	**3.1**	**960**	**35**	**35**	2.3	0.49	<5.0
	6/12/2013	300.0/8015B	**2.7**	**940**	<1.0	<1.0	3.9	0.66	<5.0
	3/18/2013	300.0/8015B	**2.7**	**1000**	<1.0	<1.0	5.3	0.57	<5.0
	11/28/2012	300.0/8015B	**3.2**	**1000**	<0.5	<0.5	1.6	1.1	<5.0
	8/21/2012	300.0/8015B	**3.0**	**1200**	<0.5	<0.5	<1.0	1.2	<5.0
	6/12/2012	300.0/8015B	**3.4**	**1300**	<0.5	<0.5	<1.0	1.2	<5.0
	3/20/2012	300.0/8015B	**3.6**	**1200**	<0.5	<0.5	3.5	1.0	<5.0
	12/14/2011	300.0/8015B	1.2	**1300**	<1.0	<1.0	2.9	0.81	<5.0
	9/26/2011	300.0/8015B	**3.5**	**1300**	<4.0	<4.0	3.9	0.65	<5.0
	6/15/2011	300.0/8015B	**2.6**	**1200**	<2.0	<2.0	4.0	0.53	<5.0
	2/16/2011	300.0/8015B	**2.8**	**1400**	2.1	2.1	5.4	0.7	<5.0
	11/2/2010	300.0/8015B	**3.5**	**1300**	<1.0	<1.0	6.0	0.68	
	9/16/2010	300.0/8015B	**2.9**	**1400**	<4.0	<4.0	7.7	0.71	
	7/20/2010	300.0	**2.9**	**1500**	<4.0	<4.0	NA	NA	
	3/3/2010	300.0/8015B	**2.1**	**1600**	<4.0	<4.0	3.9	0.88	
GWM-2	2014		No Samples - DRY						
	11/11/2013		Not enough water for sampling						
	9/3/2013	300.0/8015B	0.84	**990**	**44**	**44**	<1.0	<0.05	<5.0
	6/12/2013	300.0/8015B	<1.0	**960**	<1.0	<1.0	<1.0	<0.05	<5.0
	3/18/2013	300.0/8015B	1.6	**1100**	<2.0	<2.0	<1.0	0.052	<5.0
	11/28/2012	300.0/8015B	**3.8**	**1000**	<0.5	**15**	<1.0	<0.5	<5.0

8.7.1 GWM-1, GWM-2, GWM-3

General Chemistry and DRO/GRO Analytical Result Summary

			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	NE	**10**	NE	NE	NE
40 CFR 141.62 MCL (NOV 2015)			NE	NE	**10**	10	NE	NE	NE
NMED Tap Water (JUL 2015)			1.18	NE	1.97	31.6	NE	NE	NE
EPA RSL for Tap Water (NOV 2015)			0.08	NE	0.2	3.2	NE	NE	NE
Well ID	**DATE SAMPLED**	**METHOD**							
GWM-2	8/21/2012	300.0/8015B	**2.8**	**1200**	<0.5	**14**	<1.0	<0.25	<5.0
	6/12/2012	300.0/8015B	**3.5**	**1200**	<0.5	**24**	<1.0	<0.25	<5.0
	3/20/2012	300.0/8015B	**3.6**	**1500**	<0.5	**38**	2.4	<0.25	<5.0
	12/14/2011	300.0/8015B	0.48	**2100**	**25**	**25**	<1.0	<0.05	<5.0
	9/26/2011	300.0/8015B	1.6	**2200**	**52**	**52**	<1.0	<0.05	<5.0
	6/15/2011	300.0/8015B	**3.1**	**2200**	**66**	**66**	<1.0	<0.05	<5.0
	2/16/2011	300.0/8015B	0.43	**910**	2.6	2.6	<1.0	<0.05	
	10/4/2010	300.0/8015B	0.52	**1800**	<4.0	<4.0	<1.0	<0.05	
	9/16/2010	300.0/8015B	0.46	**1400**	<4.0	<4.0	<1.0	<0.05	
GWM-3	2014-2013		No Samples - DRY						
	11/28/2012	300.0/8015B	**5.6**	**1200**	<0.5	8.8	<1.0	0.088	<5.0
	8/21/2012	300.0/8015B	**4.9**	**1200**	<0.5	**43**	<1.0	<0.25	<5.0
	6/12/2012	300.0/8015B	**4.4**	**1400**	<0.5	6.2	<1.0	<0.25	<5.0
	3/20/2012	300.0/8015B	**4.9**	**1300**	<0.5	**18**	2.7	<0.25	<5.0
	12/14/2011	300.0/8015B	**5.0**	**1400**	**51**	**51**	1.3	<0.05	<5.0
	9/26/2011	300.0/8015B	**5.3**	**1000**	**130**	**130**	2.7	<0.05	<5.0
	6/15/2011	300.0/8015B	**5.5**	**610**	<2.0	<2.0	1.1	0.12	<5.0
	2/16/2011	300.0/8015B	**4.2**	**1100**	**61**	**61**	<1.0	<0.05	<5.0
	10/4/2010	300.0/8015B	**5.9**	**1800**	**61**	**61**	1.3	0.12	
	9/16/2010	300.0/8015B	**4.7**	**2000**	**66**	**66**	3.7	0.066	

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1 (Jul 2015)

NOTES

1) Oil sample collected from GWM-1 - sampled for DRO/GRO/MRO only.

8.7.2 GWM-1, GWM-2, GWM-3

Total Metals Analytical Result Summary

			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (NOV 2015)			**0.01**	2.0	0.1	1.3	NE	**0.015**	NE	0.05	0.002	0.03	NE
NMED Tap Water (JUL 2015)			0.00513	3.28	0.00559	0.79	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
EPA RSL for Tap Water (NOV 2015)			5.2E-05	0.38	NE	0.08	1.4	0.015	NE	0.01	6.30E-05	0.006	0.6
Well ID	**DATE SAMPLED**	**METHOD**											
GWM-1	10/29/2015	200.7/200.8	NO SAMPLES COLLECTED - HAS AN SPH LEVEL										
	8/24/2015	200.7/200.8	**0.27**	0.47	<0.006	<0.006	**12**	7.7E-03	**2.1**	0.011	<0.0002	0.015	0.025
	6/2/2015	200.7/200.8	**0.11**	0.43	7.2E-03	<0.006	**11**	7.9E-03	**2.0**	<0.02	<0.0002	0.016	0.022
	3/10/2015	200.7/200.8	**0.13**	0.49	<0.006	<0.006	**12**	0.0055	**2.4**	<0.02	<0.0002	0.016	0.02
	11/13/2014	200.7/200.8	**0.16**	0.51	<0.006	8.2E-03	**17**	0.013	**2.2**	<0.05	<0.0002	0.015	0.027
	9/12/2014	200.7/200.8	**0.14**	0.67	<0.006	<0.006	**13**	4.2E-03	**2.6**	0.019	<0.0002	0.015	0.018
	6/5/2014	200.7/200.8	**0.13**	0.54	<0.006	<0.006	**13**	0.008	**2.5**	0.019	<0.0002	0.012	0.021
	3/11/2014	200.7/200.8	**0.12**	0.49	<0.006	<0.006	**14**	6.2E-03	**2.5**	0.015	<0.0002	0.015	0.018
	11/11/2013	200.7/200.8	**0.13**	0.51	<0.006	0.015	**17**	**0.017**	**2.2**	0.014	<0.0002	0.015	0.038
	9/3/2013	200.7/200.8	**0.12**	0.85	<0.006	<0.006	**15**	4.1E-03	**2.8**	0.01	<0.0002	0.01	0.024
	6/12/2013	200.7/200.8	**0.15**	0.93	<0.006	<0.006	**11**	NL	**3.1**	0.013	<0.0002	7.3E-03	0.019
	3/18/2013	200.7/200.8	**0.12**	0.88	<0.006	<0.006	**8.0**	5.9E-03	**2.9**	3.9E-03	<0.0002	5.5E-03	0.012
	11/28/2012	200.7/200.8	**0.092**	0.73	<0.006	0.021	**10**	0.012	**2.7**	4.9E-03	<0.0002	0.016	0.021
	8/21/2012	200.7/200.8	**0.09**	**1.1**	<0.006	9.1E-03	**9.8**	5.6E-03	**3.1**	7.5E-03	<0.0002	5.2E-03	0.019
	6/12/2012	200.7/200.8	**0.066**	0.84	<0.006	<0.006	**8.7**	0.011	**2.7**	9.3E-03	<0.001	0.011	0.019
	3/20/2012	200.7/200.8	**0.073**	**1.1**	<0.006	<0.006	**8.9**	5.8E-03	**3.0**	0.01	<0.001	6.9E-03	0.016
	12/14/2011	200.7/200.8	**0.097**	0.67	<0.006	0.029	**15**	**0.023**	**2.5**	4.7E-03	<0.0002	0.02	0.041
	9/26/2011	200.7/200.8	**0.12**	**1.5**	<0.006	<0.006	**17**	<0.005	**2.8**	8.2E-03	<0.0002	0.007	0.025
	6/15/2011	200.7/200.8	**0.14**	**1.5**	<0.006	<0.006	**17**	0.01	**2.8**	0.015	<0.0002	8.4E-03	0.026
	2/16/2011	200.7/200.8	**0.16**	0.94	8.9E-03	8.9E-03	**17**	9.8E-03	**3.0**	0.02	<0.0002	0.015	0.038
	11/2/2010	6010B	**0.14**	**1.4**	<0.006	<0.006	**7.9**	9.5E-03	**3.0**	<0.05	<0.0002	0.009	0.025
	9/16/2010	6010B	**0.12**	0.87	<0.006	9.8E-03	**15**	0.012	**2.9**	<0.05	<0.0002	0.015	0.023
	7/20/2010	6010B	**0.16**	**1.2**	<0.006	0.019	**20**	0.011	**3.0**	<0.05	<0.0002	0.011	0.031
	3/3/2010	6010B	**0.098**	0.42	<0.006	7.2E-03	**15**	7.8E-03	**3.0**	<0.05	<0.0002	2.24E-02	0.03
GWM-2	2014		No Samples - DRY										
	11/11/2013		Not enough water for sampling										
	9/3/2013	200.7/200.8	7.6E-03	0.059	<0.006	0.016	0.87	9.4E-03	**1.1**	1.4E-02	<0.0002	**0.16**	0.026
	6/12/2013	200.7/200.8	<0.01	0.068	<0.006	0.012	**1.6**	NA	**1.1**	0.019	<0.0002	**0.17**	0.021
	8/21/2012	200.7/200.8	6.6E-03	0.04	<0.006	0.045	0.44	7.1E-03	**0.45**	9.9E-03	<0.0002	**0.12**	0.025
GWM-3	2014-2013		No Samples - DRY										
	8/21/2012	200.7/200.8	3.3E-03	0.04	<0.006	0.22	**1.7**	**0.07**	**1.0**	9.2E-03	<0.0002	**0.067**	0.47

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1 (Jul 2015)

NOTES

8.7.3 GWM-1, GWM-2, GWM-3

Dissolved Metals Analytical Result Summary

			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	NE	**0.03**	**10.0**
40 CFR 141.62 MCL (NOV 2015)			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	NE	0.0592	5.96
EPA RSL for Tap Water (NOV 2015)			5.2E-05	0.38	9.2E-04	NE	0.08	1.4	0.015	NE	0.01	NE	0.006	0.6
Well ID	**DATE SAMPLED**	**METHOD**												
GWM-1	10/29/2015	200.7/200.8	NO SAMPLES COLLECTED - HAS AN SPH LEVEL											
	8/24/2015	200.7/200.8	**0.14**	0.44	<0.002	<0.006	<0.006	**9.2**	0.0041	**2**	0.011	1100	0.015	0.026
	6/2/2015	200.7/200.8	**0.11**	0.38	<0.002	0.008	<0.006	**11**	<0.01	**1.9**	0.011	1100	0.015	0.027
	3/10/2015	200.7/200.8	**0.12**	0.56	<0.002	<0.006	<0.006	**9.8**	<0.005	**2.3**	<0.02	1100	0.011	0.021
	11/11/2013	200.7/200.8	**0.14**	0.45	<0.002	<0.006	<0.006	**15**	<0.01	**2.3**	<0.01	1100	0.014	0.029
	9/12/2014	200.7/200.8	**0.13**	0.78	<0.002	<0.006	<0.006	**11**	2.6E-03	**2.4**	0.02	1100	0.015	0.023
	6/5/2014	200.7/200.8	**0.13**	0.56	<0.002	<0.006	<0.006	**12**	<0.005	**2.6**	0.018	NL	0.011	0.065
	3/11/2013	200.7/200.8	**0.081**	0.47	<0.002	<0.006	<0.006	**2.4**	<0.001	**2.5**	<0.01	NL	0.015	0.021
	11/11/2013	200.7/200.8	**0.11**	0.51	<0.002	<0.006	<0.006	**11**	3.7E-03	**2.2**	0.015	1200	0.014	0.11
	9/3/2013	200.7/200.8	**0.12**	0.83	<0.002	<0.006	<0.006	**13**	<0.005	**2.7**	0.013	1100	0.011	0.1
	6/12/2013	200.7/200.8	**0.12**	0.87	<0.002	<0.006	<0.006	**8.1**	2.4E-03	**3.2**	0.02	1000	6.8E-03	0.017
	3/18/2013	200.7/200.8	**0.11**	0.83	<0.002	<0.006	<0.006	**6.0**	0.006	**2.8**	<0.005	860	0.005	0.013
	11/28/2012	200.7/200.8	**0.084**	0.83	<0.002	<0.006	<0.006	**8.7**	3.7E-03	**2.9**	5.5E-03	1000	0.019	0.11
	8/21/2012	200.7/200.8	**0.082**	**1.1**	<0.002	<0.006	<0.006	**6.8**	<0.005	**3.1**	7.6E-03	990	3.8E-03	0.03
	6/12/2012	200.7/200.8	**0.054**	**1.1**	<0.002	<0.006	<0.006	**4.0**	<0.005	**2.9**	9.9E-03	980	5.5E-03	0.016
	3/20/2012	200.7/200.8	**0.073**	0.97	<0.002	<0.006	<0.006	**9.4**	5.2E-03	**3.0**	9.6E-03	1100	0.006	0.067
	12/14/2011	200.7/200.8	**0.088**	0.52	<0.01	<0.03	<0.03	**11**	<0.025	**2.3**	6.7E-03	1200	0.02	<0.05
	9/26/2011	200.7/200.8	**0.12**	**1.3**	<0.002	<0.006	<0.006	**14**	<0.005	**2.7**	0.012	1200	8.1E-03	0.028
	6/15/2011	200.7/200.8	**0.1**	**1.4**	<0.01	<0.03	<0.03	**14**	<0.025	**2.7**	0.025	1000	7.5E-03	0.063
	2/16/2011	200.7/200.8	**0.15**	0.95	<0.01	<0.03	<0.03	**14**	<0.025	**2.9**	0.014	1200	0.013	<0.05
	11/2/2010	6010B	<0.2	**1.3**	<0.002	<0.006	<0.006	**5.2**	9.4E-03	**3.0**	<0.05	1100	0.007	NL
	9/16/2010	6010B	**0.12**	**1.2**	<0.002	<0.006	<0.006	**15**	8.6E-03	**2.9**	<0.25	1200	0.01	NL
	7/20/2010 [2]	6010B	**0.15**	**1.1**	<0.002	<0.006	<0.006	**14**	5.6E-03	**2.9**	<0.05	1200	NL	<0.05
	3/2/2010 [1]	6010B	**0.074**	0.38	<0.002	<0.006	<0.006	**12**	8.4E-03	**2.7**	<0.05	1200	0.028	0.059
GWM-2	2015-2014		No Samples - DRY											
	11/11/2013		Not enough water for sampling											
	9/3/2013	200.7/200.8	8.4E-03	0.036	<0.002	<0.006	0.014	0.19	8.1E-03	**1.1**	0.018	1000	**0.17**	0.059
	6/12/2013	200.7/200.8	9.3E-03	0.029	<0.002	<0.006	0.011	0.12	8.1E-03	**1.3**	0.023	1100	**0.17**	0.02
	3/18/2013	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	1100	NA	NA
	11/28/2012	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	1300	NA	NA
	8/21/2012	200.7/200.8	6.9E-03	0.033	<0.002	<0.006	0.041	0.13	0.012	**0.55**	0.012	1300	**0.12**	0.039
	6/12/2012	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	1400	NA	NA
	3/20/2012	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	1500	NA	NA
	12/14/2011	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	1500	NA	NA
	9/26/2011	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	1600	NA	NA
	6/15/2011	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	1600	NA	NA
	2/16/2011	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	1000	NA	NA

8.7.3 GWM-1, GWM-2, GWM-3

Dissolved Metals Analytical Result Summary

			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	NE	**0.03**	**10.0**
40 CFR 141.62 MCL (NOV 2015)			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	NE	0.0592	5.96
EPA RSL for Tap Water (NOV 2015)			5.2E-05	0.38	9.2E-04	NE	0.08	1.4	0.015	NE	0.01	NE	0.006	0.6
Well ID	**DATE SAMPLED**	**METHOD**												
GWM-2	10/4/2010	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	910	NA	NA
	9/16/2010	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GWM-3	2015-2013		No Samples - DRY											
	11/28/2012	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	1200	NA	NA
	8/21/2012	200.7/200.8	<0.005	0.029	<0.002	<0.006	0.23	0.88	**0.063**	**1.7**	9.9E-03	1200	**0.066**	0.46
	6/12/2012	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	1300	NA	NA
	3/20/2012	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	1400	NA	NA
	12/14/2011	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	1300	NA	NA
	9/26/2011	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	1300	NA	NA
	6/15/2011	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	1200	NA	NA
	2/16/2011	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	1200	NA	NA
	10/4/2010	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	1300	NA	NA
	9/16/2010	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1 (Jul 2015)

NOTES

8.7.4 GWM-1, GWM-2, GWM-3

Volatile and Semi-Volatile Organic Compound Analytical Result Summary

			Parameters																			
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	Isopropyl benzene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	1,2-Dichloro ethane (EDC)	2,4-Dimethyl phenol (mg/L)	Benz(a) anthracene (mg/L)	Benzo(a) pyrene (mg/L)	Benzo (g,H,i) perylene (mg/L)	Chrysene (mg/L)	Fluorene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	0.01	NE	NE	0.0007	NE	NE	NE	NE	NE	NE	NE	NE
40 CFR 141.62 MCL (NOV 2015)			NE	NE	NE	NE	NE	NE	NE	NE	NE	**0.005**	NE	NE	**0.0002**	NE	NE	NE	NE	NE	NE	NE	NE
NMED Tap Water (DEC 2014)			NE	NE	**0.00165**	NE	NE	**14.1**	**0.447**	NE	NE	0.00171	**0.354**	NE	0.0000343	NE	**0.0343**	**0.288**	NE	NE	**0.00165**	**0.17**	**0.117**
EPA RSL for Tap Water (NOV 2015)			**0.015**	**0.12**	1.7E-04	**1.1E-03**	**0.036**	14.0	0.045	**1**	**0.66**	0.017	0.36	**1.20E-05**	0.0000034	NE	0.0034	0.29	**0.0011**	**0.036**	0.00017	NE	0.12
Well ID	**DATE SAMPLED**	**METHOD**																					
GWM-1	10/29/2015	8260B	NO SAMPLES COLLECTED - HAS AN SPH LEVEL																				
	8/24/2015	8260B/8270C	6.3E-02	0.017	**0.045**	**0.067**	**0.087**	<0.05	<0.005	<0.015	<0.005	<0.005	<0.250	**1.3**	**0.062**	0.34	**1.8**	**5.4**	**37**	**27**	**2.5**	**25**	**4.8**
	6/2/2015	8021B	4.7E-03	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA										
	3/10/2015	8021B	2.8E-03	<0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA										
	11/13/2014	8260B	5.7E-03	<0.005	<0.01	**<0.02**	<0.02	<0.05	<0.005	<0.015	<0.005	**0.027**	NA										
	9/12/2014	8260B/8270C	9.8E-03	0.0012	<0002	**0.013**	<0.004	<0.01	1.4E-03	<0.003	3.0E-03	<0.001	0.078										
	6/5/2014	8260B	0.011	1.2E-03	<0.002	**0.012**	<0.004	0.02	1.7E-03	<0.003	2.1E-03	NA	NA										
	3/11/2014	8260B	**7.0**	<0.001	<0.002	**6.8E-03**	<0.004	<0.01	1.1E-03	<0.003	1.6E-03	NA	NA										
	11/11/2013	8260B	5.2E-03	<0.001	<0.002	**4.7E-03**	<0.004	<0.01	1.2E-03	<0.003	1.8E-03	NA	NA										
	9/3/2013	8260B/8270C	0.011	<0.005	<0.01	<0.02	<0.02	<0.05	<0.005	<0.015	<0.005	**0.077**	0.077										
	6/12/2013	8260B	0.013	2.7E-03	<0.002	**0.018**	<0.004	0.013	1.2E-03	<0.003	1.8E-03	NA	NA										
	3/18/2013	8260B	**0.019**	<0.005	<0.01	<0.02	<0.02	<0.05	<0.005	<0.015	<0.005	NA	NA										
	11/28/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1	<0.01	<0.03	<0.01	NA	NA										
	8/21/2012	8260B/8270C	9.7E-03	1.9E-03	<0.002	**0.013**	<0.004	<0.01	1.1E-03	<0.003	2.2E-03	**0.032**	0.032										
	6/12/2012	8260B	4.9E-03	<0.001	<0.002	**6.3E-03**	<0.004	0.011	<0.001	<0.001	1.6E-03	NA	NA										
	3/20/2012	8260B	1.8E-03	<0.001	<0.002	<0.004	<0.004	0.011	<0.001	<0.001	1.1E-03	NA	NA										
	12/14/2011	8260B	0.004	<0.001	<0.002	**5.2E-03**	<0.004	<0.01	1.3E-03	<0.001	2.2E-03	NA	NA										
	9/26/2011	8260B	**0.019**	2.9E-03	**4.4E-03**	**0.028**	<0.004	<0.01	1.9E-03	<0.01	2.7E-03	NA	NA										
	6/15/2011	8260B	**0.018**	3.1E-03	**5.5E-03**	**0.024**	6.2E-03	<0.01	1.8E-03	<0.01	2.8E-03	NA	NA										
	2/16/2011	8260B	0.008	<0.001	<0.002	**0.01**	<0.004	<0.01	1.4E-03	<0.001	1.8E-03	NA	NA										
	11/2/2010	8260B	7.5E-03	<0.001	<0.02	**0.011**	<0.004	<0.01	<0.001	1.6E-03	1.2E-03	NA	NA										
	9/16/2010	8260B Short List	0.012	1.9E-03	NA	NA	NA	NA	NA	NA	NA	NA	NA										
	7/20/2010	8260B/8270C	0.013	<0.001	**3.5E-03**	**7.2E-03**	<0.004	0.012	1.6E-03	1.9E-03	1.5E-03	**0.052**	0.052										
	3/3/2010	8260B	8.1E-03	<0.005	<0.01	<0.02	<0.02	<0.05	<0.005	<0.005	<0.005	NA	NA										
GWM-2	2015-2014		No samples - dry																				
	11/11/2013		Not enough water for sampling																				
	9/3/2013	8206B	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01	<0.001	<0.003	<0.001	<0.01	<0.01										
	6/12/2013	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.011	<0.001	<0.003	<0.001	NA	NA										
	3/18/2013	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.011	<0.001	<0.003	<0.001	NA	NA										
	6/15/2011	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01	<0.001	<0.001	<0.001	NA	NA										
	2/16/2011	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01	<0.001	<0.001	<0.001	NA	NA										
GWM-3	2015-2013		No Samples - DRY																				
	6/15/2011	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01	<0.001	<0.001	<0.001	NA	NA										
	2/16/2011	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01	<0.001	<0.001	<0.001	NA	NA										

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1 (Dec 2014)

NOTES

8.8 NAPIS-1, NAPIS-2, NAPIS-3, KA-3
BTEX Analytical Result Summary

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED Tap Water (JUL 2015)			4.5E-03	1.09	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			3.9E-03	0.86	0.013	0.19	0.014
Well ID	**DATE SAMPLED**	**METHOD**					
NAPIS 1	11/14/2016	8260B	<0.001	<0.001	<0.001	<0.0015	8.7E-04
	9/1/2016	8260B	<0.001	<0.001	<0.001	<0.0015	1.8E-03
	6/7/2016	8260B	<0.001	<0.001	<0.001	<0.0015	0.002
	3/1/2016	8260B	<0.001	<0.001	<0.001	<0.0015	3.2E-04
	10/28/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/11/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/2/2015	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	3/10/2015	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/11/2014	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	9/11/2014	8260B	1.4E-03	<0.001	<0.001	<0.0015	<0.001
	6/5/2014	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	3/10/2014	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/12/2013	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	9/3/2013	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/12/2013	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	3/18/2013	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/28/2012	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	8/21/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/12/2012	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	3/20/2012	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	12/14/2011	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	9/27/2011	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	6/15/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/2/2011	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/2/2010	8260	<0.001	<0.001	<0.001	<0.003	<0.0015
	9/15/2010	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	6/8/2010	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	3/8/2010	8021B	<0.001	<0.001	<0.001	<0.002	NA
NAPIS 2	11/14/2016	8260B	4.1E-03	1.3E-04	1.4E-03	<0.0015	**0.16**
	9/1/2016	8260B	5.0E-03	<0.001	1.5E-03	<0.0015	**0.18**
	6/7/2016	8260B	4.5E-03	1.3E-04	5.1E-03	<0.0015	0.14
	3/1/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/28/2015	8260B	**9.1E-03**	<0.001	2.1E-03	<0.0015	**0.23**
	8/11/2015	8260B	**0.012**	<0.001	2.8E-03	<0.0015	**0.2**
	6/2/2015	8021B	**0.016**	<0.001	7.3E-03	<0.002	**0.2**
	3/10/2015	8021B	**0.032**	<0.001	1.2E-02	2.7E-03	**0.22**
	11/11/2014	8021B	**0.016**	<0.001	5.2E-03	<0.002	**0.34**
	9/11/2014	8260B	**0.027**	<0.001	0.007	<0.0015	**0.29**
	6/5/2014	8021B	**0.086**	2.1E-03	0.028	3.7E-03	**0.2**
	3/10/2014	8021B	**0.067**	<0.002	0.028	<0.004	**0.21**
	11/12/2013	8021B	0.001	<0.001	8.3E-03	<0.002	**0.25**
	9/3/2013	8260B	**0.018**	<0.001	0.013	1.6E-03	**0.24**
	6/12/2013	8021B	**0.013**	<0.001	0.047	<0.002	**0.3**
	3/18/2013	8021B	**0.07**	<0.001	0.056	2.2E-03	**0.38**
	11/28/2012	8021B	**0.016**	<0.002	0.003	<0.004	**0.36**
	8/21/2012	8260B	**0.01**	<0.005	<0.005	<0.0075	**0.16**
	6/12/2012	8021B	**0.018**	<0.01	0.012	<0.02	**0.34**
	3/20/2012	8021B	**0.019**	<0.01	0.011	<0.02	**0.37**

8.8 NAPIS-1, NAPIS-2, NAPIS-3, KA-3
BTEX Analytical Result Summary

STANDARDS			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED Tap Water (JUL 2015)			4.5E-03	1.09	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			3.9E-03	0.86	0.013	0.19	0.014
Well ID	**DATE SAMPLED**	**METHOD**					
NAPIS 2	12/14/2011	8021B	**0.022**	<0.005	8.9E-03	<0.01	**0.33**
	9/27/2011	8021B	**0.035**	<0.005	<0.005	<0.01	**0.33**
	6/15/2011	8260B	**0.027**	<0.005	0.018	<0.0075	**0.28**
	3/2/2011	8021B	**0.04**	<0.005	0.014	<0.01	**0.34**
	11/2/2010	8260	**0.015**	<0.005	<0.005	<0.0015	**0.27**
	9/15/2010	8260B	**0.066**	<0.005	8.3E-03	<0.015	**0.23**
	6/10/2010	8021B	**0.14**	<0.005	9.6E-03	<0.001	**0.23**
	3/8/2010	8260B	**0.083**	1.4E-03	0.016	2.1E-03	**0.25**
NAPIS 3	11/14/2016	8260B	<0.001	2.1E-04	<0.001	<0.0015	0.015
	9/1/2016	8260B	<0.001	<0.001	<0.001	<0.0015	8.4E-04
	6/7/2016	8260B	<0.001	<0.001	<0.001	<0.0015	4.4E-04
	3/1/2016	8260B	**0.013**	2.3E-04	5.3E-03	<0.0015	**0.16**
	10/28/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/11/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/2/2015	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	3/10/2015	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/13/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/11/2014	8260B	3.8E-03	<0.001	1.9E-03	<0.0015	0.011
	6/5/2014	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	3/10/2014	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/12/2013	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	9/3/2013	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/12/2013	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	3/18/2013	8021B	<0.002	<0.002	<0.002	<0.004	<0.005
	11/28/2012	8021B	<0.002	<0.002	<0.002	<0.004	<0.005
	10/2/2012 [1]	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	6/12/2012	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	3/20/2012	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	12/14/2011	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	9/27/2011	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	6/15/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/2/2011	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/2/2010	8260	<0.001	<0.001	<0.001	<0.0015	<0.0015
	9/15/2010	8021B	0.001	<0.001	<0.001	<0.002	<0.0025
	6/10/2010	8021B	**0.2**	<0.001	0.012	<0.002	0.08
	3/8/2010	8021B	**0.072**	<0.001	0.001	<0.002	NA
KA 3	11/14/2016	8260B	4.4E-03	<0.001	1.3E-03	<0.0015	0.037
	9/1/2016	8260B	7.1E-03	<0.001	0.0032	<0.0015	0.045
	6/7/2016	8260B	**0.006**	<0.001	1.5E-03	<0.0015	0.037
	3/3/2016	8260B	**5.4E-03**	<0.001	2.7E-03	<0.0015	0.015
	10/28/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.011
	8/11/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.011
	6/2/2015	8021B	<0.001	<0.001	<0.001	<0.002	0.012
	3/10/2015	8021B	<0.001	<0.001	<0.001	<0.002	8.8E-03
	11/11/2014	8021B	<0.001	<0.001	<0.001	<0.002	0.013
	9/11/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/5/2014	8021B	<0.001	<0.001	<0.001	<0.002	5.6E-03
	3/10/2014	8021B	<0.001	<0.001	<0.001	<0.002	3.9E-03

8.8 NAPIS-1, NAPIS-2, NAPIS-3, KA-3
BTEX Analytical Result Summary

STANDARDS			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED Tap Water (JUL 2015)			4.5E-03	1.09	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			3.9E-03	0.86	0.013	0.19	0.014
Well ID	**DATE SAMPLED**	**METHOD**					
KA 3	11/12/2013	8021B	2.4E-03	<0.001	1.8E-03	<0.002	6.5E-03
	9/3/2013	8260B	3.4E-03	<0.001	1.4E-03	<0.0015	**0.2**
	6/12/2013	8021B	**0.009**	<0.001	8.3E-03	<0.002	0.031
	3/18/2013	8021B	**0.011**	<0.001	0.011	<0.002	0.017
	11/28/2012	8021B	<0.002	<0.002	<0.002	<0.004	<0.005
	8/21/2012	8260B	<0.001	<0.001	<0.001	<0.0015	0.023
	6/12/2012	8021B	**0.013**	<0.001	4.5E-03	<0.002	0.028
	3/20/2012	8021B	**0.015**	<0.002	4.2E-03	<0.004	0.035
	12/14/2011	8021B	**0.024**	<0.001	4.5E-03	<0.002	0.057
	9/27/2011	8021B	**0.064**	<0.001	0.011	<0.002	0.099
	6/15/2011	8260B	<0.001	<0.001	<0.001	<0.0015	0.077
	3/2/2011	8021B	<0.005	<0.005	<0.005	<0.01	0.088
	11/2/2010	8260	**0.23**	<0.01	0.014	<0.03	0.1
	9/15/2010	8260B	**0.52**	<0.01	0.031	<0.03	0.11
	6/10/2010	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	3/8/2010	8021B	<0.01	<0.01	<0.01	<0.01	NA

DEFINITIONS

NE = Not established
NA = Not analyzed
Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
40 CFR 141.62 Detection Limits for Inorganic Contaminants
NMED Tap Water
EPA Regional Screening Level (RSL) Summary Table

NOTES

1) Was not sampled in September due to low recharge rate.

8.8.1 NAPIS-1, NAPIS-2, NAPIS-3, KA-3

General Chemistry and DRO/GRO Analytical Result Summary

			PARAMETERS								
STANDARDS			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	NE	**10**	NE	**600.0**	NE	NE	NE
40 CFR 141.62 MCL			NE	NE	**10.0**	10	NE	NE	NE	NE	NE
NMED Tap Water (JUL 2015)			1.18	NE	1.97	31.6	NE	NE	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			0.62	NE	2	32	NE	NE	NE	NE	NE
Well ID	**DATE SAMPLED**	**METHOD**									
NAPIS 1	11/14/2016	300.0/8015D	0.56	110	**12**	**12**	<0.5	99	<1.0	<0.05	<5.0
	9/1/2016	300.0/8015D	0.27	0.97	<0.1	10	<0.5	99	<1.0	<0.05	<5.0
	6/7/2016	300.0/8015D	0.44	130	**21**	**21**	<0.5	140	<1.0	<0.05	<5.0
	3/1/2016	300.0/8015D	0.38	110	**14**	**14**	<2.5	110	<1.0	<0.05	<5.0
	10/28/2015	300.0/8015D	0.52	85	6.9	6.9	<0.5	85	<1.0	<0.05	<5.0
	8/11/2015	300.0/8015D	0.67	110	8.6	8.6	<0.5	100	<1.0	<0.05	<5.0
	6/2/2015	300.0/8015D	<1.0	100	9.1	9.1	<5.0	93	<1.0	NA	<5.0
	3/10/2015	300.0/8015D	0.35	82	5.6	5.6	<0.5	75	<1.0	<0.05	<5.0
	11/11/2014	300.0/8015B	0.69	**1100**	5.1	5.1	<0.5	130	<1.0	<0.05	NA
	9/11/2014	300.0/8015B	0.46	91	7.1	7.1	<0.5	110	<1.0	<0.05	<5.0
	6/5/2014	300.0/8015B	0.4	86	**14**	**14**	<0.5	140	<1.0	<0.05	<5.0
	3/10/2014	300.0/8015B	<0.5	79	<0.5	**29**	<2.5	180	<1.0	<0.05	<5.0
	11/12/2013	300.0/8015B	0.42	120	<0.1	**30**	<0.5	210	<1.0	<0.05	NA
	9/3/2013	300.0/8015B	0.53	110	**34**	**34**	<0.5	69	<1.0	<0.05	<5.0
	6/12/2013	300.0/8015B	<1.0	89	3.3	3.3	<5.0	35	<1.0	<0.05	<5.0
	3/18/2013	300.0/8015B	0.63	97	1.1	1.1	<2.5	39	<1.0	<0.05	<5.0
	11/28/2012	300.0/8015B	1.1	110	<0.5	1.4	<2.5	70	<1.0	<0.05	<5.0
	8/21/2012	300.0/8015B	0.54	96	<0.5	2.6	<2.5	52	<1.0	<0.05	<5.0
	6/12/2012	300.0/8015B	0.88	120	<0.5	2.9	<2.5	68	<1.0	<0.05	<5.0
	3/20/2012	300.0/8015B	0.49	100	<0.1	3.3	<0.5	56	<1.0	<0.05	<5.0
	12/14/2011	300.0/8015B	0.67	150	4.7	4.7	<10	82	<1.0	<0.05	<5.0
	9/27/2011	300.0/8015B	1.1	180	**58**	**58**	<2.5	110	<1.0	<0.05	<5.0
	6/15/2011	300.0/8015B	0.52	140	<0.1	6.2	<0.5	78	<1.0	0.11	<5.0
	3/2/2011	300.0/8015B	0.42	180	9.5	9.5	<0.5	92	<1.0	<0.05	<5.0
	11/2/2010	300.0/8015B	0.96	200	<2.0	6.9	<0.5	98	<1.0	<0.05	
	9/15/2010	300.0/8015B	0.5	189	**11.2**	**11.2**	**0.019**	65	<1.0	<0.05	
	6/8/2010	300.0/8015B	0.73	170	4.0	4.0	<0.5	56	<1.0	<0.05	
	3/8/2010	300.0/8015B	0.75	130	2.0	2.0	<0.5	52	<1.0	<0.05	
NAPIS-2	11/14/2016	300.0/8015D	**1.7**	**310**	<1.0	<1.0	<0.5	11	1.0	0.56	<5.0
	9/1/2016	300.0/8015D	**1.7**	**300**	<0.5	<0.5	<2.5	7.8	1.1	0.75	<5.0
	6/7/2016	300.0/8015D	**1.7**	**340**	<1.0	<1.0	<0.5	19	<1.0	0.44	<5.0
	3/1/2016	300.0/8015D	1.6	**330**	<1.0	<1.0	<2.5	18	<1.0	0.38	<5.0
	10/28/2015	300.0/8015B	**1.7**	**320**	<1.0	<1.0	<0.5	13	1.1	0.37	<5.0
	8/11/2015	300.0/8015D	1.6	**310**	<1.0	<1.0	<0.5	11	<1.0	0.51	<5.0
	6/2/2015	300.0/8015D	**2.1**	**290**	<2.0	<2.0	<5.0	9.90	<1.0	NA	<5.0
	3/10/2015	300.0/8015B	1.4	**300**	<0.5	<0.5	<2.5	7.80	1.2	0.49	<5.0

8.8.1 NAPIS-1, NAPIS-2, NAPIS-3, KA-3

General Chemistry and DRO/GRO Analytical Result Summary

STANDARDS			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	NE	**10**	NE	**600.0**	NE	NE	NE
40 CFR 141.62 MCL			NE	NE	**10.0**	10	NE	NE	NE	NE	NE
NMED Tap Water (JUL 2015)			1.18	NE	1.97	31.6	NE	NE	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			0.62	NE	2	32	NE	NE	NE	NE	NE
Well ID	**DATE SAMPLED**	**METHOD**									
NAPIS-2	11/11/2014	300.0/8015B	1.6	**330**	<1.0	<1.0	<2.5	11.00	<1.0	0.6	<5.0
	9/11/2014	300.0/8015B	1.6	**360**	<1.0	<1.0	<0.5	11.00	1.3	0.41	<5.0
	6/5/2014	300.0/8015B	1.3	**330**	<1.0	<1.0	<0.5	4.80	1.5	0.62	<5.0
	3/10/2014	300.0/8015B	1.5	220	<1.0	<1.0	<5.0	10.00	1.8	0.64	<5.0
	11/12/2013	300.0/8015B	**1.7**	**260**	<0.1	<0.1	<0.5	23	1.4	0.41	NA
	9/3/2013	300.0/8015B	**1.8**	**290**	5.2	5.2	<0.5	7.8	<1.0	0.47	<5.0
	6/12/2013	300.0/8015B	1.6	230	<1.0	<1.0	<5.0	7.8	1.9	0.74	<5.0
	3/18/2013	300.0/8015B	1.6	**270**	<1.0	<1.0	<2.5	4.9	2.9	0.65	<5.0
	11/28/2012	300.0/8015B	**1.7**	**370**	<0.5	<0.5	<2.5	11	<1.0	0.52	<5.0
	8/21/2012	300.0/8015B	1.6	**370**	<0.5	<0.5	<2.5	11	<1.0	1.4	<5.0
	6/12/2012	300.0/8015B	**1.7**	**350**	<0.5	<0.5	<2.5	7.9	<1.0	1.3	<5.0
	3/20/2012	300.0/8015B	0.49	**330**	<1.0	<1.0	<0.5	5.3	4.7	1.4	<5.0
	1/30/2012 [2]	300.0/8015B	1.1	**420**	<1.0	<1.0	<2.5	<2.5	NA	NA	NA
	12/14/2011 [1]	300.0/8015B	NA	NA	NA	NA	NA	NA	3.4	0.61	<5.0
	9/27/2011	300.0/8015B	**1.8**	**270**	**80**	**80**	<2.5	6.0	3.1	0.69	<5.0
	6/15/2011	300.0/8015B	1.4	**380**	<0.5	<2.0	<2.5	3.3	1.8	0.97	<5.0
	3/2/2011	300.0/8015B	1.3	**360**	<1.0	<1.0	<2.5	3.7	2.8	1.3	<5.0
	11/2/2010	300.0/8015B	**1.7**	230	<1.0	<1.0	<0.5	7.8	5.1	0.57	
	9/15/2010	300.0/8015B	1.3	220	<0.5	<0.5	0.01	6.0	5.3	1.0	
	6/10/2010	300.0/8015B	1.2	**340**	<1.0	<1.0	<2.5	8.7	6.3	1.3	
	3/8/2010	300.0/8015B	1.4	**320**	<1.0	<1.0	<0.05	11	3.8	1.0	
NAPIS-3	11/14/2016	300.0/8015D	**1.7**	**320**	<0.5	3.5	0.9	230	0.89	<0.05	<5.0
	9/1/2016	300.0/8015D	**2.1**	**310**	<0.5	5.0	1.1	210	<1.0	<0.05	<5.0
	6/7/2016	300.0/8015D	0.56	**870**	**14**	**14**	<0.5	320	<1.0	<0.05	<5.0
	3/1/2016	300.0/8015D	0.53	**850**	**14**	**14**	<0.5	350	<1.0	<0.05	<5.0
	10/28/2015	300.0/8015B	0.6	**880**	**15**	**15**	<0.5	420	<1.0	<0.05	<5.0
	8/11/2015	300.0/8015D	0.28	**920**	**24**	**24**	<0.5	380	<1.0	<0.05	<5.0
	6/2/2015	300.0/8015D	<1.0	**790**	**15**	**15**	<5.0	440	<1.0	NA	<5.0
	3/10/2015	300.0/8015B	0.42	**940**	<2.0	**20**	<0.5	430	<1.0	<0.05	<5.0
	11/13/2014	300.0/8015B	0.35	**890**	**19**	**19**	<0.5	400	<1.0	<0.05	<5.0
	9/11/2014	300.0/8015B	1.1	160	1.1	1.1	<0.5	61	<1.0	<0.05	<5.0
	6/5/2014	300.0/8015B	0.3	**910**	**19**	**19**	<0.5	400	<1.0	<0.05	<5.0
	3/10/2014	300.0/8015B	<0.5	**920**	<0.5	**20**	<2.5	430	<1.0	<0.05	<5.0
	11/12/2013	300.0/8015B	0.36	**990**	<2.0	**20**	<2.5	380	<1.0	<0.05	NA
	9/3/2013	300.0/8015B	0.27	**980**	**20**	**20**	<0.5	410	<1.0	<0.05	<5.0
	6/12/2013	300.0/8015B	<1.0	**940**	**17**	**17**	<5.0	400	<1.0	<0.05	<5.0
	3/18/2013	300.0/8015B	1.3	**940**	**17**	**17**	<2.5	380	<1.0	<0.1	<5.0

8.8.1 NAPIS-1, NAPIS-2, NAPIS-3, KA-3

General Chemistry and DRO/GRO Analytical Result Summary

STANDARDS			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	NE	**10**	NE	**600.0**	NE	NE	NE
40 CFR 141.62 MCL			NE	NE	**10.0**	10	NE	NE	NE	NE	NE
NMED Tap Water (JUL 2015)			1.18	NE	1.97	31.6	NE	NE	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			0.62	NE	2	32	NE	NE	NE	NE	NE
Well ID	**DATE SAMPLED**	**METHOD**									
NAPIS-3	11/28/2012	300.0/8015B	0.68	**880**	<0.5	**14**	<2.5	280	<1.0	<0.1	<5.0
	10/2/2012	300.0/8015B	0.84	**990**	**20**	**20**	<2.5	400	<1.0	<0.05	<5.0
	6/12/2012	300.0/8015B	0.55	**1000**	<0.5	**19**	<2.5	450	<1.0	<0.05	<5.0
	3/20/2012	300.0/8015B	0.59	**970**	<0.5	**19**	<2.5	390	<1.0	<0.05	<5.0
	12/14/2011	300.0/8015B	0.29	**1100**	**19**	**19**	<10	420	<1.0	<0.05	<5.0
	9/27/2011	300.0/8015B	<0.5	**1000**	**49**	**49**	<2.5	400	<1.0	<0.05	<5.0
	6/15/2011	300.0/8015B	1.5	**530**	<0.5	3.5	<2.5	170	<1.0	<0.05	<5.0
	3/2/2011	300.0/8015B	0.44	**1100**	**14**	**14**	<0.05	420	<1.0	<0.05	<5.0
	11/2/2010	300.0/8015B	0.48	**1100**	**18**	**18**	<0.5	430	<1.0	<0.05	
	9/15/2010	300.0/8015B	NL	**1040**	**24.1**	**24.1**	0.023	290	<1.0	<0.05	
	6/10/2010	300.0/8015B	1.5	**260**	<1.0	<1.0	<0.5	39	1.8	0.89	
	3/8/2010	300.0/8015B	0.46	**410**	5.5	5.5	<0.5	400	<1.0	<0.5	
KA 3	11/14/2016	300.0/8015D	0.93	190	<1.0	<1.0	<0.5	35	<1.0	0.13	<5.0
	9/1/2016	300.0/8015D	0.86	210	<0.1	<0.5	<0.5	36	<1.0	0.18	<5.0
	6/7/2016	300.0/8015D	1	190	<1.0	<1.0	<0.5	25	<1.0	0.11	<5.0
	3/3/2016	300.0/8015D	0.96	110	<0.1	0.71	<0.5	34	<1.0	0.063	<5.0
	10/28/2015	300.0/8015B	1.1	120	<1.0	<1.0	<0.5	57	<1.0	<0.05	<5.0
	8/11/2015	300.0/8015D	1	130	2.8	2.8	<0.5	52	<1.0	<0.05	<5.0
	6/2/2015	300.0/8015D	1.5	150	<2.0	<2.0	<5.0	42	<1.0	NA	<5.0
	3/10/2015	300.0/8015D	1.1	120	<0.1	0.53	<0.5	43	<1.0	<0.05	<5.0
	11/11/2014	300.0/8015B	1.1	160	<1.0	<1.0	<0.5	54	<1.0	<0.05	NL
	9/11/2014	300.0/8015B	0.45	**760**	**19**	**19**	<0.5	420	<1.0	<0.05	<5.0
	6/5/2014	300.0/8015B	1.0	180	7.7	7.7	<0.5	95	<1.0	<0.05	<5.0
	3/10/2014	300.0/8015B	1.1	140	<0.5	**13**	<2.5	72	<1.0	<0.05	<5.0
	11/12/2013	300.0/8015B	1.3	110	0.2	9.3	<0.5	54	<1.0	<0.05	NA
	9/3/2013	300.0/8015B	1.1	170	**20**	**20**	<0.5	39	<1.0	<0.05	<5.0
	6/12/2013	300.0/8015B	1.4	190	<1.0	<1.0	<5.0	33	<1.0	0.072	<5.0
	3/18/2013	300.0/8015B	**1.8**	180	2.4	2.4	<2.5	81	<1.0	0.063	<5.0
	11/28/2012	300.0/8015B	0.98	**870**	2.8	9.9	<2.5	270	<1.0	<0.1	<5.0
	8/21/2012	300.0/8015B	<2.0	250	<0.1	0.31	<0.5	43	<1.0	0.1	<5.0
	6/12/2012	300.0/8015B	1.3	**710**	2.1	**11**	<2.5	220	<1.0	0.14	<5.0
	3/20/2012	300.0/8015B	**2.0**	**440**	<1.0	**15**	<2.5	220	1.8	0.16	<5.0
	12/14/2011	300.0/8015B	1.3	**260**	<1.0	<1.0	<0.5	38	<1.0	0.15	
	9/27/2011	300.0/8015B	1.5	**290**	**48**	**48**	<2.5	48	2.1	0.35	
	6/15/2011	300.0/8015B	0.51	**970**	<0.5	**18**	<0.5	370	<1.0	<0.25	
	3/2/2011	300.0/8015B	1.2	**600**	4.3	4.3	<0.5	150	<1.0	<0.25	
	11/2/2010	300.0/8015B	**1.7**	**260**	<1.0	<1.0	<5.0	38	1.7	0.68	

8.8.1 NAPIS-1, NAPIS-2, NAPIS-3, KA-3

General Chemistry and DRO/GRO Analytical Result Summary

STANDARDS			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	NE	**10**	NE	**600.0**	NE	NE	NE
40 CFR 141.62 MCL			NE	NE	**10.0**	10	NE	NE	NE	NE	NE
NMED Tap Water (JUL 2015)			1.18	NE	1.97	31.6	NE	NE	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			0.62	NE	2	32	NE	NE	NE	NE	NE
Well ID	**DATE SAMPLED**	**METHOD**									
KA 3	9/15/2010	300.0/8015B	1.4	**277**	<0.5	<0.5	0.013	37	3.0	1.9	
	6/10/2010	300.0/8015B	0.38	**1100**	**17**	**17**	<0.05	390	<1.0	<0.05	
	3/8/2010	300.0/8015B	1.6	**410**	5.5	5.5	<0.05	90	<1.0	0.47	

DEFINITIONS

NE = Not established

NA = Not analyzed

BOLD values represent values above the applicable standard

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

40 CFR 141.62 Detection Limits for Inorganic Contaminants

NMED Tap Water

EPA Regional Screening Level (RSL) Summary Table

NOTES

1) 12/14/11 - General Chemistry parameters missed this quarter. Notified NMED and instructed to re-sample for general chemistry parameters only.

2) Resampled for General Chemistry parameters only.

8.8.2 NAPIS-1, NAPIS-2, NAPIS-3, KA-3

Total Metals Analytical Result Summary

STANDARDS			PARAMETERS									
			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	0.1	1.3	NE	**0.015**	NE	0.05	0.002	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00559	0.79	13.8	NE	2.02	0.0987	0.0000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	NE	0.8	14	0.015	0.43	0.1	6.3E-04	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**											
NAPIS 1	11/14/2016	200.7/200.8	3.6E-03	0.13	<0.006	<0.006	0.55	7.8E-04	**0.25**	7.2E-03	8.5E-05	**0.034**	5.3E-03
	9/1/2016	200.7/200.8	4.1E-03	0.14	<0.006	<0.006	0.29	4.7E-04	**0.25**	<0.02	NA	0.019	2.8E-03
	6/7/2016	200.7/200.8	<0.01	0.16	<0.006	<0.006	0.82	9.8E-04	**0.26**	7.8E-03	6.5E-05	0.015	4.8E-03
	10/28/2015	200.7/200.8	<0.005	0.14	<0.006	<0.006	0.59	8.1E-04	0.13	5.4E-03	<0.0002	0.013	<0.01
	8/11/2015	200.7/200.8	<0.01	0.11	<0.006	<0.006	0.72	1.1E-03	0.099	<0.01	<0.0002	0.025	0.01
	6/2/2015	200.7/200.8	<0.01	0.15	<0.006	<0.006	0.6	<0.005	**0.25**	<0.01	<0.0002	0.014	<0.01
	3/10/2015	200.7/200.8	<0.01	0.13	<0.006	<0.006	0.46	<0.001	0.2	<0.01	<0.0002	0.013	<0.01
	11/11/2014	200.7/200.8	<0.01	0.13	<0.006	<0.006	0.79	0.001	**0.24**	<0.01	<0.0002	0.012	0.01
	9/11/2014	200.7/200.8	<0.01	0.13	<0.006	<0.006	0.24	<0.01	0.12	0.012	<0.0002	0.012	<0.01
	3/5/2014	200.7/200.8	<0.005	0.15	<0.006	<0.006	**1.2**	<0.005	0.12	0.01	<0.0002	0.014	0.012
	3/10/2014	200.7/200.8	1.8E-03	0.14	<0.006	<0.006	0.28	<0.001	0.095	5.5E-03	<0.0002	0.013	0.012
	11/12/2013	200.7/200.8	3.4E-03	0.19	<0.006	<0.006	0.36	<0.001	0.17	0.01	<0.0002	0.012	0.011
	9/3/2013	200.7/200.8	2.6E-03	0.17	<0.006	<0.006	0.57	<0.001	0.089	7.3E-03	<0.0002	9.9E-03	<0.01
	6/12/2013	200.7/200.8	2.7E-03	0.13	<0.006	<0.006	0.25	NL	0.068	7.6E-03	<0.0002	0.011	<0.01
	3/18/2013	200.7/200.8	<0.0025	0.13	<0.006	<0.006	**1.4**	<0.005	0.14	3.9E-03	<0.0002	0.017	0.011
	11/28/2012	200.7/200.8	<0.0025	0.12	<0.006	<0.006	**1.1**	<0.005	0.099	2.7E-03	<0.001	0.03	0.013
	8/21/2012	200.7/200.8	<0.0025	0.13	<0.006	<0.006	0.066	<0.005	0.018	4.3E-03	<0.0002	9.4E-03	<0.01
	6/2/2012	200.7/200.8	3.1E-03	0.27	6.8E-03	<0.06	**7.5**	<0.005	**0.36**	5.2E-03	<0.001	**0.032**	0.037
	3/20/2012	200.7/200.8	<0.0025	0.13	<0.006	<0.006	0.99	<0.005	0.039	5.3E-03	<0.0002	0.012	<0.01
	12/14/2011	200.7/200.8	<0.0025	0.19	<0.006	<0.006	**2.9**	<0.005	0.12	3.3E-03	<0.0002	0.019	0.017
	9/27/2011	200.7/200.8	<0.0025	0.13	<0.006	<0.006	0.59	<0.005	0.092	6.7E-03	<0.0002	**0.046**	<0.01
	6/15/2011	200.7/200.8	0.004	0.19	<0.006	<0.006	**2.2**	<0.005	0.058	0.01	<0.0002	0.013	0.012
	3/2/2011	200.7/200.8	<0.0025	0.17	<0.006	<0.006	1.0	<0.005	0.035	<0.05	NA	0.021	<0.01
	11/2/2010	6010B	<0.02	0.26	6.2E-03	<0.006	**6.4**	<0.005	0.16	<0.05	<0.0002	**0.045**	0.027
	9/15/2010	6010B	<0.02	0.19	<0.006	<0.006	0.56	<0.005	0.044	<0.05	<0.0002	0.018	<0.02
	6/8/2010	6010B	<0.02	0.18	<0.006	NA	NA	<0.005	NA	<0.05	<0.0002	NA	NA
	3/8/2010	6020A	<0.001	0.133	1.06E-03	2.64E-03	0.548	<0.001	1.47E-02	<0.001	<0.0001	**0.273**	4.85E-03
NAPIS-2	11/14/2016	200.7/200.8	8.4E-03	**1.9**	6.9E-03	7.1E-03	**5.5**	0.007	**1.3**	0.005	1.1E-04	8.5E-04	0.03
	9/1/2016	200.7/200.8	8.7E-03	**2**	0.011	0.01	**7.8**	8.1E-03	**1.4**	0.011	NL	0.0013	0.057
	6/7/2016	200.7/200.8	8.2E-03	**1.6**	3.4E-03	<0.006	**5.6**	5.3E-03	**1.2**	5.9E-03	8.0E-05	1.5E-03	0.022
	10/28/2015	200.7/200.8	0.008	**1.6**	<0.006	<0.006	**3.3**	1.8E-03	**1.2**	<0.01	<0.0002	<0.0005	0.011
	8/11/2015	200.7/200.8	0.008	**1.6**	<0.006	9.9E-03	**3.3**	2.3E-03	**1.2**	<0.005	<0.0002	<0.0005	0.016
	6/2/2015	200.7/200.8	<0.01	**1.6**	<0.006	<0.006	**2.9**	<0.005	**1.2**	<0.01	<0.0002	<0.005	<0.01
	3/10/2015	200.7/200.8	<0.01	**1.9**	<0.006	<0.006	**3.0**	1.3E-03	**1.1**	<0.01	<0.0002	<0.001	<0.01
	11/11/2014	200.7/200.8	<0.01	**1.7**	<0.006	<0.006	**2.9**	<0.001	**1.4**	<0.01	<0.0002	<0.001	0.013
	9/11/2014	200.7/200.8	0.01	**2.1**	<0.006	0.012	**3.5**	0.003	**1.3**	0.011	<0.0002	<0.001	0.047
	6/5/2014	200.7/200.8	<0.005	**2.0**	<0.006	9.7E-03	**3.9**	<0.005	**1.3**	9.5E-03	<0.0002	<0.005	0.013
	3/10/2014	200.7/200.8	0.006	**1.5**	<0.006	<0.006	**2.9**	<0.001	**1.4**	7.1E-03	<0.0002	<0.001	<0.01
	11/12/2013	200.7/200.8	8.1E-03	**1.4**	<0.006	9.7E-03	**3.2**	1.3E-03	**1.4**	7.7E-03	<0.0002	<0.001	0.018
	9/3/2013	200.7/200.8	6.3E-03	**2.0**	<0.006	<0.006	**3.9**	1.4E-03	**1.4**	4.5E-03	<0.0002	<0.001	0.012
	6/12/2013	200.7/200.8	7.0E-03	**2.0**	<0.006	<0.006	**3.2**	NA	**1.5**	5.1E-03	<0.0002	<0.001	<0.01
	3/18/2013	200.7/200.8	7.3E-03	**1.6**	<0.006	<0.006	**2.9**	<0.005	**1.3**	<0.0025	<0.0002	<0.0025	0.015
	11/28/2012	200.7/200.8	6.9E-03	**1.7**	<0.006	<0.006	**3.3**	5.2E-03	**1.6**	<0.0025	<0.0002	<0.0025	<0.01

8.8.2 NAPIS-1, NAPIS-2, NAPIS-3, KA-3

Total Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	0.1	1.3	NE	**0.015**	NE	0.05	0.002	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00559	0.79	13.8	NE	2.02	0.0987	0.0000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	NE	0.8	14	0.015	0.43	0.1	6.3E-04	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**											
	8/21/2012	200.7/200.8	9.7E-03	**1.7**	<0.006	<0.006	**3.1**	<0.005	**1.7**	3.1E-03	<0.0002	<0.0025	<0.01
	6/12/2012	200.7/200.8	0.01	**1.9**	<0.006	<0.06	**3.8**	<0.005	**1.9**	3.5E-03	<0.001	<0.0025	<0.01
	3/20/2012	200.7/200.8	**0.011**	**2.1**	<0.006	7.1E-03	**5.0**	<0.005	**1.6**	3.6E-03	<0.0002	<0.0025	0.015
	12/14/2011	200.7/200.8	9.9E-03	**1.7**	<0.006	<0.006	**4.1**	<0.005	**1.4**	<0.0025	<0.0002	<0.0025	0.011
	9/27/2011	200.7/200.8	**0.012**	**1.7**	<0.006	<0.006	**4.2**	<0.005	**1.3**	3.4E-03	<0.0002	<0.0025	0.016
	6/15/2011	200.7/200.8	**0.012**	**2.1**	<0.006	<0.006	**5.4**	<0.005	**1.5**	6.3E-03	<0.0002	<0.0025	<0.01
	3/2/2011	200.7/200.8	**0.011**	**2.4**	<0.006	7.5E-03	**5.4**	<0.005	**1.3**	<0.05	NA	<0.0025	<0.01
	11/2/2010	6010B	<0.02	**1.2**	<0.006	<0.006	**4.2**	<0.005	**1.2**	<0.05	<0.0002	NA	<0.02
NAPIS 2	9/15/2010	6010B	<0.02	**1.4**	<0.006	<0.006	**4.3**	<0.005	**1.1**	<0.05	<0.0002	<0.001	<0.02
	6/10/2010	6010B	<0.02	**1.7**	<0.006	NA	NA	<0.005	NA	<0.05	<0.0002	NA	NA
	3/8/2010	6020A	4.57E-03	**2.07**	1.05E-03	2.46E-03	**4.71**	1.38E-03	**1.25**	<0.001	<0.0001	<0.001	7.07E-03
NAPIS-3	11/14/2016	200.7/200.8	**0.011**	**3.0**	**0.078**	0.11	**29**	**0.079**	**2.9**	0.012	0.00077	**0.041**	0.56
	9/1/2016	200.7/200.8	4.8E-03	0.98	0.025	0.03	**11**	**0.025**	**0.96**	0.0086	NA	0.029	0.15
	6/7/2016	200.7/200.8	<0.05	0.27	0.019	0.011	**6.8**	0.011	**0.33**	0.017	1.3E-04	**0.039**	0.2
	10/28/2015	200.7/200.8	<0.01	0.11	<0.006	<0.006	**1.6**	1.9E-03	0.093	0.018	<0.0002	**0.039**	0.016
	8/11/2015	200.7/200.8	<0.01	0.1	9.5E-03	<0.006	**2.2**	3.5E-03	0.081	0.019	<0.0002	**0.038**	0.07
	6/3/2015	200.7/200.8	<0.01	0.1	6.6E-03	7.5E-03	**1.4**	<0.005	0.08	<0.02	<0.0002	**0.038**	0.028
	3/10/2015	200.7/200.8	<0.02	0.1	<0.006	<0.006	**1.1**	1.5E-03	**0.26**	<0.05	<0.0002	**0.042**	0.018
	11/13/2014	200.7/200.8	<0.05	0.11	0.01	<0.006	**2.1**	3.4E-03	0.07	<0.05	<0.0002	**0.039**	0.063
	9/11/2014	200.7/200.8	<0.01	0.22	<0.006	<0.006	0.14	<0.001	**0.55**	<0.01	<0.0002	0.019	<0.01
	6/5/2014	200.7/200.8	7.6E-03	0.23	0.016	<0.006	**5.8**	7.3E-03	0.16	0.032	<0.0002	**0.032**	0.14
	3/10/2014	200.7/200.8	<0.01	0.22	0.013	7.3E-03	**4.3**	5.3E-03	0.12	0.027	<0.0002	**0.036**	0.091
	11/12/2013	200.7/200.8	9.7E-03	0.69	0.029	0.021	**13**	**0.019**	**0.7**	0.03	<0.0002	**0.038**	0.24
	9/3/2013	200.7/200.8	5.2E-03	0.19	0.009	6.1E-03	**3.4**	3.9E-03	0.16	0.019	<0.0002	**0.038**	0.043
	6/12/2013	200.7/200.8	6.4E-03	0.85	0.036	0.03	**15**	NL	**0.57**	0.016	<0.0002	**0.039**	0.26
	3/18/2013	200.7/200.8	**0.016**	**3.8**	**0.13**	0.16	**62**	**0.097**	**3.8**	8.9E-03	1.6E-03	**0.052**	1.1
	11/28/2012	200.7/200.8	4.8E-03	0.57	0.018	0.018	**9.9**	8.1E-03	**0.46**	9.7E-03	<0.0002	**0.04**	0.12
	10/2/2012	200.7/200.8	4.2E-03	0.18	<0.006	<0.006	**1.8**	<0.005	0.11	0.016	<0.0002	**0.037**	0.02
	6/12/2012	200.7/200.8	5.1E-03	0.11	7.5E-03	<0.006	**2.4**	5.2E-03	0.082	0.017	<0.001	**0.041**	0.057
	3/20/2012	200.7/200.8	0.006	0.16	0.017	8.3E-03	**5.5**	8.2E-03	0.12	0.017	<0.0002	**0.038**	0.22
	12/14/2011	200.7/200.8	4.4E-03	0.16	0.019	<0.006	**6.0**	8.1E-03	0.11	0.011	<0.0002	**0.041**	0.23
	9/27/2011	200.7/200.8	7.2E-03	0.27	0.044	0.012	**2.0**	0.014	**0.21**	0.2	<0.0002	**0.041**	0.51
	6/15/2011	200.7/200.8	0.007	0.2	<0.006	<0.006	0.72	<0.005	**1.0**	0.012	<0.0002	0.013	<0.01
	3/2/2011	200.7/200.8	<0.0025	0.078	<0.006	<0.006	0.49	<0.005	0.017	<0.05	NA	**0.044**	0.014
	11/2/2010	6010B	<0.02	0.096	7.5E-03	0.012	**2.6**	0.011	0.12	<0.05	<0.0002	**0.032**	0.59
	9/15/2010	6010B	<0.02	0.11	**0.098**	0.014	**3.9**	0.012	0.15	<0.05	<0.0002	**0.035**	0.36
	6/10/2010	6010B	<0.02	0.54	<0.006	NA	NA	<0.005	NA	<0.05	<0.0002	NA	NA
	3/8/2010	6020A	1.58E-03	9.79E-02	3.96E-03	3.19E-03	0.338	1.23E-03	0.0176	3.73E-03	<0.0002	**3.19E-02**	9.41E-03
KA 3	11/14/2016	200.7/200.8	6.8E-03	**1.2**	<0.006	<0.006	**1.8**	2.5E-04	**1.3**	4.9E-03	<0.0002	8.9E-03	4.2E-03
	9/1/2016	200.7/200.8	5.0E-03	0.95	<0.006	<0.006	0.93	4.4E-04	**2.7**	<0.02	NA	0.014	6.7E-03
	6/7/2016	200.7/200.8	4.7E-03	0.77	<0.006	9.2E-03	0.53	4.8E-04	**2.0**	4.5E-03	6.4E-05	9.9E-03	0.011
	10/28/2015	200.7/200.8	3.5E-03	0.31	<0.006	<0.006	0.11	<0.0005	**1.7**	<0.005	<0.0002	0.013	<0.01
	8/11/2015	200.7/200.8	2.3E-03	0.29	<0.006	<0.006	0.42	7.7E-04	**1.6**	<0.005	<0.0002	0.019	<0.01
	6/2/2015	200.7/200.8	<0.01	0.35	<0.006	<0.006	0.29	<0.005	**3.0**	<0.01	<0.0002	0.018	<0.01
	3/10/2015	200.7/200.8	<0.01	0.27	<0.006	<0.006	0.35	<0.001	**1.6**	<0.01	<0.0002	0.015	<0.01
	9/11/2014	200.7/200.8	**0.011**	0.07	<0.006	8.4E-03	1.0	1.5E-03	0.035	0.034	<0.0002	**0.047**	0.018
	3/10/2014	200.7/200.8	<0.005	0.11	<0.006	<0.006	0.95	<0.001	**0.26**	8.2E-03	<0.0002	**0.089**	0.016

8.8.2 NAPIS-1, NAPIS-2, NAPIS-3, KA-3

Total Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	0.1	1.3	NE	**0.015**	NE	0.05	0.002	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00559	0.79	13.8	NE	2.02	0.0987	0.0000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	NE	0.8	14	0.015	0.43	0.1	6.3E-04	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**											
	11/12/2013	200.7/200.8	3.3E-03	0.16	<0.006	<0.006	0.22	<0.001	**0.44**	8.2E-03	<0.0002	0.021	0.01
	9/3/2013	200.7/200.8	2.2E-03	0.17	<0.006	<0.006	0.33	<0.001	**0.42**	3.4E-03	<0.0002	0.013	0.013
	6/12/2013	200.7-200.8	1.9E-03	0.16	<0.006	<0.006	0.4	NL	**0.35**	0.003	<0.0002	0.014	<0.01
	3/18/2013	200.7/200.8	<0.0025	0.079	<0.006	<0.006	0.62	5.8E-03	**0.58**	<0.0025	<0.0002	0.02	<0.01
	11/28/2012	200.7/200.8	0.006	**1.3**	0.036	0.013	**30**	<0.005	**1.7**	0.01	<0.0002	**0.032**	0.092
	8/21/2012	200.7/200.8	2.8E-03	0.3	<0.006	0.007	0.32	<0.005	**0.81**	<0.0025	<0.0002	4.3E-03	0.014
	6/12/2012	200.7/200.8	5.7E-03	0.61	0.022	9.2E-03	**15**	<0.005	**0.93**	0.012	<0.001	0.027	0.055
	3/20/2012	200.7/200.8	6.5E-03	0.99	0.033	0.017	**24**	<0.005	**1.8**	8.8E-03	<0.0002	0.023	0.095
KA 3	12/14/2011	200.7/200.8	3.8E-03	0.34	<0.006	<0.006	**1.1**	<0.005	**1.1**	<0.0025	<0.0002	4.5E-03	0.013
	9/27/2011	200.7/200.8	6.3E-03	0.3	<0.006	<0.006	**2.2**	<0.005	**1.1**	0.003	<0.0002	5.8E-03	0.024
	6/15/2011	200.7/200.8	8.9E-03	0.22	0.028	<0.006	**9.4**	0.014	0.16	0.03	<0.0002	**0.035**	0.32
	3/2/2011	200.7/200.8	6.3E-03	0.44	<0.006	<0.006	0.64	<0.005	**1.4**	<0.05	NL	0.015	<0.01
	11/2/2010	6010B	<0.02	0.6	<0.006	<0.006	**1.2**	<0.005	**1.4**	<0.05	<0.0002	NL	<0.02
	9/15/2010	6010B	<0.02	0.47	**0.096**	<0.006	**1.6**	<0.005	**1.3**	<0.05	<0.0002	0.003	<0.02
	6/10/2010	6010B	<0.02	0.17	6.4E-03	NL	NL	<0.005	NL	<0.05	<0.0002	NL	<0.02
	3/8/2010	6020A	**0.011**	0.335	1.4E-03	1.14E-02	**2.35**	3.03E-03	**2.1**	<0.001	<0.0001	6.52E-03	2.11E-02

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

40 CFR 141.62 Detection Limits for Inorganic Contaminants

NMED Tap Water

EPA Regional Screening Level (RSL) Summary Table

NOTES

8.8.3 NAPIS-1, NAPIS-2, NAPIS-3, KA-3
Dissolved Metals Analytical Result Summary

STANDARDS			PARAMETERS									
			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	0.1	1.3	NE	**0.015**	NE	0.05	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00559	0.79	13.8	NE	2.02	0.0987	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			0.000052	0.38	NE	0.08	1.4	0.015	0.43	0.1	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**										
NAPIS-1	11/14/2016	200.7/200.8	0.0040	0.10	<0.006	<0.006	<0.02	<0.0005	0.093	0.012	**0.036**	0.004
	9/1/2016	200.7/200.8	<0.02	0.13	<0.006	<0.006	<0.02	<0.0005	0.130	0.008	0.013	0.370
	6/7/2016	200.7/200.8	0.0031	0.14	<0.006	<0.006	<0.02	<0.0005	0.110	0.008	0.015	<0.01
	10/28/2015	200.7/200.8	<0.005	0.13	<0.006	<0.006	<0.02	<0.0005	0.061	<0.01	0.013	<0.01
	8/11/2015	200.7/200.8	<0.005	0.095	<0.006	<0.006	<0.02	<0.0025	0.028	0.005	0.020	<0.01
	6/2/2015	200.7/200.8	<0.01	0.11	<0.006	<0.006	<0.02	<0.01	0.067	<0.01	0.013	0.010
	3/10/2015	200.7/200.8	<0.01	0.11	<0.006	<0.006	<0.02	<0.001	0.067	<0.02	0.013	<0.01
	11/11/2014	200.7/200.8	<0.01	0.12	<0.006	<0.006	<0.02	<0.001	0.065	<0.01	0.012	0.050
	9/11/2014	200.7/200.8	<0.005	0.13	<0.006	<0.006	<0.02	<0.01	0.130	0.012	<0.01	0.010
	6/5/2014	200.7/200.8	<0.005	0.12	<0.006	<0.006	0.0250	<0.001	0.059	0.013	0.010	<0.01
	3/10/2014	200.7/200.8	<0.005	0.12	<0.006	<0.006	<0.02	<0.001	0.053	<0.005	0.013	0.017
	11/12/2013	200.7/200.8	<0.005	0.17	<0.006	<0.006	<0.02	<0.005	0.071	0.011	0.011	<0.01
	9/3/2013	200.7/200.8	<0.005	0.15	<0.03	<0.03	<0.1	<0.005	0.064	0.009	<0.01	<0.05
	6/12/2013	200.7/200.8	0.0034	0.13	<0.006	<0.006	0.0570	<0.001	0.027	0.011	0.011	<0.01
	3/18/2013	200.7/200.8	0.0016	0.091	<0.006	<0.006	<0.02	<0.005	0.004	0.003	0.017	<0.01
	11/28/2012	200.7/200.8	0.0019	0.093	<0.006	<0.006	<0.02	<0.001	0.010	0.004	0.029	0.013
	8/21/2012	200.7/200.8	0.0021	0.13	<0.006	<0.006	<0.02	<0.005	0.011	0.004	0.011	0.017
	6/12/2012	200.7/200.8	0.0023	0.10	<0.006	<0.006	0.0250	<0.005	0.004	0.006	0.014	0.014
	3/20/2012	200.7/200.8	0.0018	0.11	<0.006	<0.006	<0.02	<0.005	0.006	0.006	0.010	0.022
	12/14/2011	200.7/200.8	0.0017	0.12	<0.006	<0.006	0.2700	<0.005	0.007	0.004	0.021	<0.01
	9/27/2011	200.7/200.8	0.0029	0.12	<0.006	<0.006	<0.02	<0.005	0.056	0.009	**0.032**	0.011
	6/15/2011	200.7/200.8	0.0047	0.14	<0.006	<0.006	<0.020	<0.005	0.002	0.017	0.016	0.028
	3/2/2011	200.7/200.8	0.0013	0.15	<0.006	<0.006	0.0320	<0.005	<0.002	<0.05	0.017	<0.01
	11/2/2010	6010B	<0.1	0.13	<0.006	<0.006	0.0570	<0.005	0.016	<0.25	**0.034**	NA
	9/15/2010	6010B	<0.02	0.18	<0.006	<0.006	0.2900	0.0064	0.007	<0.05	0.011	NA
	6/8/2010	6010B	<0.2	0.13	<0.006	NA	NA	<0.005	NA	<0.05	NA	NA
	3/8/2010	6020A	0.0011	0.139	<0.001	0.0021	<0.01	<0.001	<0.001	0.000	0.028	0.026

8.8.3 NAPIS-1, NAPIS-2, NAPIS-3, KA-3
Dissolved Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	0.1	1.3	NE	**0.015**	NE	0.05	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00559	0.79	13.8	NE	2.02	0.0987	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			0.000052	0.38	NE	0.08	1.4	0.015	0.43	0.1	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**										
NAPIS-2	11/14/2016	200.7/200.8	0.0085	**1.5**	<0.006	<0.006	**1.5**	0.0003	**1.1**	0.0078	0.0005	<0.01
	9/1/2016	200.7/200.8	0.0075	**1.4**	<0.006	<0.006	**1.6**	<0.0005	**1.1**	0.0066	0.0003	0.170
	6/7/2016	200.7/200.8	0.0086	0.68	<0.006	<0.006	**1.8**	<0.0005	**1.1**	0.0062	0.0009	0.055
	10/28/2015	200.7/200.8	0.0084	**1.6**	<0.006	<0.006	**1.8**	<0.0005	**1.2**	0.0097	<0.0005	0.022
	8/11/2015	200.7/200.8	0.0072	**1.3**	<0.006	<0.006	**1.4**	<0.0025	**1.2**	<0.005	<0.0025	<0.01
	6/2/2015	200.7/200.8	<0.01	**1.5**	<0.006	<0.006	**1.2**	<0.01	**1.1**	<0.01	<0.01	<0.01
	3/10/2015	200.7/200.8	<0.01	**1.8**	<0.006	<0.006	**1.9**	<0.001	**1.0**	<0.01	<0.001	<0.01
	11/11/2014	200.7/200.8	0.0076	0.27	<0.006	<0.006	**1.8**	<0.001	**1.3**	0.0062	<0.001	0.019
	9/11/2014	200.7/200.8	0.0070	**1.9**	<0.006	<0.006	**1.6**	<0.01	**1.2**	0.0110	<0.01	0.047
	6/5/2014	200.7/200.8	0.0064	**1.6**	<0.006	<0.006	**2.6**	<0.005	**1.4**	0.0100	<0.001	<0.01
	3/10/2014	200.7/200.8	0.0053	**1.8**	<0.006	<0.006	**1.8**	<0.001	**1.2**	<0.005	<0.001	0.012
	11/12/2013	200.7/200.8	0.0077	**1.5**	<0.006	<0.006	**1.8**	<0.001	**1.3**	0.0080	<0.001	<0.01
	9/3/2013	200.7/200.8	0.0069	**1.7**	<0.006	<0.006	**2.6**	<0.005	**1.3**	0.0060	<0.01	0.021
	6/12/2013	200.7/200.8	0.0068	**1.9**	<0.006	<0.006	**1.7**	<0.001	**1.6**	0.0071	<0.001	0.010
	3/18/2013	200.7/200.8	0.0062	**1.5**	<0.006	<0.006	**1.1**	<0.005	**1.2**	0.0024	<0.002	<0.01
	11/28/2012	200.7/200.8	0.0083	**1.7**	<0.006	<0.006	**2.9**	<0.001	**1.8**	0.0034	<0.001	0.011
	8/21/2012	200.7/200.8	**0.0140**	**2.7**	<0.006	<0.006	**1.9**	<0.005	**1.6**	3.4000	<0.001	0.016
	6/12/2012	200.7/200.8	0.0089	**1.8**	<0.006	<0.006	**2.7**	<0.005	**1.6**	0.0047	<0.001	0.180
	3/20/2012	200.7/200.8	0.0093	**1.8**	<0.006	<0.006	**3.0**	<0.005	**1.5**	0.0042	<0.001	0.070
	12/14/2011	200.7/200.8	0.0089	**1.8**	<0.006	<0.006	**3.2**	<0.005	**1.3**	0.0028	<0.001	<0.01
	9/27/2011	200.7/200.8	**0.0110**	**1.4**	<0.006	<0.006	**2.2**	<0.005	**1.2**	0.0050	<0.001	0.015
	6/15/2011	200.7/200.8	**0.0120**	**1.7**	<0.006	<0.006	**3.2**	<0.005	**1.3**	0.0095	<0.001	0.041
	3/2/2011	200.7/200.8	**0.0130**	0.055	<0.006	<0.006	**4.8**	<0.005	<0.002	<0.05	<0.001	<0.01
	11/2/2010	6010B	<0.1	**1.4**	<0.006	<0.006	**2.9**	<0.005	**1.2**	<0.05	NA	NA
	9/15/2010	6010B	<0.02	**1.5**	<0.006	<0.006	**3.7**	<0.005	**1.0**	<0.05	<0.001	NA
	6/10/2010	6010B	<0.02	**1.7**	<0.006	NA	NA	<0.005	NA	<0.05	NA	NA
	3/8/2010	6020A	0.0047	**1.73**	<0.001	<0.001	**3.8**	<0.001	**1.1**	<0.001	<0.001	0.053

8.8.3 NAPIS-1, NAPIS-2, NAPIS-3, KA-3
Dissolved Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	0.1	1.3	NE	**0.015**	NE	0.05	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00559	0.79	13.8	NE	2.02	0.0987	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			0.000052	0.38	NE	0.08	1.4	0.015	0.43	0.1	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**										
NAPIS-3	11/14/2016	200.7/200.8	0.0070	0.16	0.0031	0.0080	**1.40**	0.0063	**0.3600**	0.0160	**0.034**	0.047
	9/1/2016	200.7/200.8	0.0039	0.13	<0.006	<0.006	0.31	0.0010	0.0110	0.0096	0.023	0.047
	6/7/2016	200.7/200.8	0.0072	0.065	0.0038	<0.006	0.23	0.0016	0.0033	0.0220	**0.041**	0.023
	10/28/2015	200.7/200.8	<0.05	0.046	<0.006	<0.006	<0.02	<0.0005	0.0081	<0.05	**0.040**	<0.01
	8/11/2015	200.7/200.8	<0.01	0.041	<0.006	<0.006	0.04	<0.0025	0.0029	0.0200	**0.038**	0.049
	6/2/2015	200.7/200.8	<0.01	0.033	<0.006	<0.006	0.06	<0.01	0.0038	0.0160	**0.043**	0.049
	3/10/2015	200.7/200.8	<0.02	0.048	<0.006	<0.006	<0.02	<0.001	<0.002	<0.05	**0.036**	0.044
	11/13/2014	200.7/200.8	<0.01	0.041	<0.006	<0.006	<0.02	<0.01	<0.002	<0.05	**0.039**	0.089
	9/11/2014	200.7/200.8	<0.005	0.22	<0.006	<0.006	<0.02	<0.01	**0.4700**	0.0089	0.014	0.011
	6/5/2014	200.7/200.8	**0.0110**	0.094	0.0073	<0.006	**2.60**	<0.01	0.0580	0.0450	**0.034**	0.070
	3/10/2014	200.7/200.8	<0.01	0.053	<0.006	<0.006	0.24	<0.001	0.0073	0.0110	**0.039**	0.017
	11/12/2013	200.7/200.8	0.0076	0.055	<0.006	<0.006	0.15	<0.001	0.0047	0.0290	**0.036**	0.024
	9/3/2013	200.7/200.8	0.0063	0.058	<0.006	<0.006	0.17	<0.001	0.0075	0.0230	**0.041**	0.028
	6/12/2013	200.7/200.8	0.0077	0.094	<0.006	<0.006	0.57	0.0014	0.0380	0.0320	**0.038**	0.019
	3/18/2013	200.7/200.8	0.0048	0.18	<0.006	0.0065	**4.60**	<0.005	**0.2500**	0.0120	**0.037**	0.037
	11/28/2012	200.7/200.8	0.0052	0.14	<0.006	0.0140	**15.00**	0.0100	**0.3900**	0.0120	**0.035**	0.100
	10/2/2012	200.7/200.8	0.0040	0.11	<0.006	<0.006	**3.20**	<0.005	0.1400	0.0130	**0.038**	0.035
	6/12/2012	200.7/200.8	0.0050	0.054	<0.006	<0.006	0.02	<0.005	<0.002	0.0190	**0.039**	0.015
	3/20/2012	200.7/200.8	0.0039	0.063	0.0079	<0.006	0.51	<0.005	0.0140	0.0170	**0.032**	0.084
	12/14/2011	200.7/200.8	0.0037	0.052	<0.006	<0.006	0.12	<0.005	0.0047	0.0130	**0.040**	0.018
	9/27/2011	200.7/200.8	0.0064	0.058	<0.006	<0.006	0.14	<0.005	0.0035	0.0250	**0.038**	0.018
	6/15/2011	200.7/200.8	0.0085	0.17	<0.006	<0.006	0.06	<0.005	**0.9200**	0.0190	0.013	0.270
	3/2/2011	200.7/200.8	<0.001	0.057	<0.006	<0.006	<0.02	<0.005	<0.002	<0.05	**0.039**	<0.01
	11/2/2010	6010B	<0.02	0.081	<0.006	<0.006	0.03	<0.005	0.0100	<0.05	**0.035**	NA
	9/15/2010	6010B	<0.02	0.066	<0.006	<0.006	0.02	<0.005	0.0021	<0.05	**0.032**	NA
	6/10/2010	6010B	<0.02	0.62	<0.006	NA	NA	<0.005	NA	<0.05	NA	NA
	3/8/2010	6020A	0.0031	0.345	0.0027	0.0022	<0.01	<0.001	0.0014	0.0036	0.030	0.034

8.8.3 NAPIS-1, NAPIS-2, NAPIS-3, KA-3
Dissolved Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	0.1	1.3	NE	**0.015**	NE	0.05	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00559	0.79	13.8	NE	2.02	0.0987	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			0.000052	0.38	NE	0.08	1.4	0.015	0.43	0.1	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**										
KA-3	11/14/2016	200.7/200.8	0.0036	**1.2**	<0.006	<0.006	0.1200	<0.0005	**1.30**	0.0071	0.0099	0.0031
	9/1/2016	200.7/200.8	0.0029	1.0	<0.006	<0.006	0.0590	<0.0005	**1.90**	0.0049	0.0075	0.0410
	6/7/2016	200.7/200.8	0.0038	0.79	<0.006	<0.006	0.1000	<0.0005	**1.50**	0.0058	0.0095	0.0052
	10/28/2015	200.7/200.8	<0.005	0.31	<0.006	<0.006	<0.02	<0.0005	**0.61**	<0.01	0.0120	<0.01
	8/11/2015	200.7/200.8	<0.005	0.24	<0.006	<0.006	<0.02	<0.0025	**0.64**	<0.005	0.0180	0.2800
	6/2/2015	200.7/200.8	<0.01	0.28	<0.006	<0.006	<0.02	<0.01	**0.77**	<0.01	0.0190	<0.01
	3/10/2015	200.8	0.0020	0.25	<0.006	<0.006	<0.02	<0.001	**0.69**	<0.01	0.0180	0.0100
	11/11/2014	200.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/2014	200.7/200.8	**0.0110**	0.041	<0.006	<0.006	<0.02	<0.01	<0.002	0.0350	**0.0390**	<0.01
	6/5/2014	200.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/10/2014	200.7/200.8	<0.005	0.093	<0.006	<0.006	<0.02	<0.001	**0.38**	<0.005	**0.0480**	0.0120
	11/12/2013	200.7/200.8	0.0036	0.18	<0.006	<0.006	<0.02	<0.001	**0.37**	0.0091	0.0200	0.0110
	9/3/2013	200.7/200.8	<0.005	0.15	<0.006	<0.006	<0.02	<0.005	**0.37**	0.0056	0.0110	0.0300
	6/12/2013	200.7/200.8	0.0030	0.14	<0.006	<0.006	<0.02	<0.001	**0.31**	0.0077	0.0150	<0.01
	3/18/2013	200.7/200.8	0.0019	0.063	<0.006	<0.006	<0.02	<0.005	**0.53**	0.0029	0.0190	0.0220
	11/28/2012	200.7/200.8	0.0046	0.15	<0.006	<0.006	**4.2000**	0.0046	**0.61**	0.0087	0.0240	0.0210
	8/21/2012	200.7/200.8	0.0031	0.17	<0.006	<0.006	<0.02	<0.005	**0.39**	0.0047	0.0130	0.0220
	6/12/2012	200.7/200.8	0.0038	0.094	<0.006	<0.006	0.1500	<0.005	**0.38**	0.0072	0.0150	0.0120
	3/20/2012	200.7/200.8	0.0033	0.068	0.0110	<0.006	0.3500	<0.005	**0.35**	0.0085	0.0180	0.0330
	12/14/2011	200.7/200.8	0.0034	0.31	<0.006	<0.006	0.1400	<0.005	**0.95**	0.0021	0.0042	<0.01
	9/27/2011	200.7/200.8	0.0060	0.20	<0.006	<0.006	0.0830	<0.005	**0.89**	0.0057	0.0067	0.0180
	6/15/2011	200.7/200.8	0.0100	0.063	<0.006	<0.006	<0.02	<0.005	0.00	0.0420	**0.0340**	0.0440
	3/2/2011	200.7/200.8	0.0062	0.024	<0.006	<0.006	0.1100	<0.005	0.04	<0.05	0.0100	<0.01
	11/2/2010	6010B	<0.1	0.62	<0.006	<0.006	0.3200	<0.005	**1.40**	<0.05	NA	NA
	9/15/2010	6010B	<0.02	0.56	<0.006	<0.006	0.5600	<0.005	**1.20**	<0.05	0.0010	NA
	6/10/2010	6010B	<0.02	0.078	<0.006	NA	NA	<0.005	NA	<0.05	NA	NA
	3/8/2010	6020A	0.0098	0.0652	<0.001	0.0043	**1.5500**	<0.001	**1.86**	0.0010	0.0070	0.0382

8.8.3 NAPIS-1, NAPIS-2, NAPIS-3, KA-3

Dissolved Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	0.1	1.3	NE	**0.015**	NE	0.05	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00559	0.79	13.8	NE	2.02	0.0987	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			0.000052	0.38	NE	0.08	1.4	0.015	0.43	0.1	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**										

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

40 CFR 141.62 Detection Limits for Inorganic Contaminants

NMED Tap Water

EPA Regional Screening Level (RSL) Summary Table

NOTES

8.8.4 NAPIS-1, NAPIS-2, NAPIS-3, KA-3

Volatile and Semi-Volatile Organic Compound Analytical Result Summary

			PARAMETERS																						
STANDARDS			Acenaphthene (mg/L)	Aniline (mg/L)	Benz(a)anthracene (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Fluorene (mg/L)	2-Methyl phenol (mg/L)	Phenanthrene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Naphthalene (mg/L)	3+4-Methyl phenol (mg/L)	Phenol (mg/L)	Acetone (mg/L)	1,1-Dichloroethane (mg/L)	1,1-Dichloroethene (mg/L)	Isopropylbenzene (mg/L)	n-Butylbenzene (mg/L)	n-Propylbenzene (mg/L)	sec-Butylbenzene (mg/L)	cis-1,2-DCE (mg/L)	tert-Butylbenzene (mg/L)	1,2,4-Trimethylbenzene (mg/L)	Bromodichloromethane (mg/L)	4-Chlorotoluene (mg/L)	1,2-Dichloroethane (EDC) (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	**0.005**	NE	**0.025**	**0.005**	NE	NE	NE	NE	**0.005**	NE	NE	NE	NE	0.01
40 CFR 141.62 MCL			NE	NE	NE	**0.006**	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	7.0E-03	NE	NE	NE	NE	0.07	NE	NE	NE	NE	**0.005**
NMED Tap Water (JUL 2015)			**0.535**	NE	**0.000343**	0.0556	**0.288**	NE	**0.17**	NE	NE	**0.00165**	NE	5.76	**14.1**	2.75E-02	2.84E-01	**0.447**	NE	NE	NE	NE	0.0365	NE	NE	**0.00134**	NE	0.0276
EPA RSL for Tap Water (MAY 2016)			0.53	**0.013**	1.2E-05	0.0056	0.29	**0.93**	NE	**1.1E-03**	**0.036**	1.7E-04	**0.93**	5.8	14	2.8E-03	2.8E-01	0.45	**1.0**	**0.66**	**2.0**	0.036	**0.69**	**0.015**	0.00013	NE	0.017
Well ID	**DATE SAMPLED**	**METHOD**																									
NAPIS 1	11/14/2016	8260B	NA	NA	NA	NA	NA	NA	NA	<0.004	<0.004	<0.002				<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001					
	9/1/2016	8260B	NA	NA	NA	NA	NA	NA	NA	<0.004	<0.004	<0.002				<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001					
	6/7/2016	8260B	NA	NA	NA	NA	NA	NA	NA	<0.004	<0.004	<0.002				<0.001	<0.01	<0.001	<0.003	<0.001	<0.001	<0.001					
	3/1/2016	8260B	NA	NA	NA	NA	NA	NA	NA	<0.004	<0.004	<0.002				<0.001	<0.01	<0.001	<0.003	<0.001	<0.001	<0.001					
	10/28/2015	8260B	NA	NA	NA	NA	NA	NA	NA	<0.004	<0.004	<0.002															
	8/11/2015	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	6/2/2015	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01															
	3/10/2015	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01															
	11/11/2014	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01															
	9/11/2014	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01															
	6/5/2014	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01															
	3/10/2014	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	11/12/2013	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	9/3/2013	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	6/12/2013	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	3/18/2013	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	12/5/2012 [1]	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	8/21/2012	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	6/12/2012	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	3/20/2012	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	1/30/2012	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	12/14/2011	8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA															
	9/27/2011	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	6/15/2011	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	3/2/2011	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01															
	11/2/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01															
	9/15/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.1															
	6/8/2010	8310	<0.0025	NL	NL	NL	<0.0008	NL	<0.0006	<0.002	<0.002	<0.002															
	3/8/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01															
NAPIS-2	11/14/2016	8260B	NA	NA	NA	NA	NA	NA	NA	1.7E-04	<0.004	1.4E-04	NA	NA	7.1E-03	<0.001	<0.001	3.3E-04	4.8E-04	6.0E-04	5.5E-04	<0.001	3.1E-04	1.8E-04	2.3E-04	5.0E-04	
	9/1/2016	8260B	NA	NA	NA	NA	NA	NA	NA	**0.002**	<0.004	**2.1E-03**	NA	NA	0.015	2.3E-04	<0.001	4.2E-04	1.7E-04	2.6E-04	3.6E-04	<0.001	2.4E-04	<0.001			
	6/7/2016	8260B	NA	NA	NA	NA	NA	NA	NA	**1.2E-03**	4.4E-04	6.0E-04	NA	NA	0.012	3.4E-04	<0.001	1.1E-03	4.0E-04	9.1E-04	5.4E-03	2.8E-04		1.5E-04			
	3/1/2016	8260B	NA	NA	NA	NA	NA	NA	NA	<0.004	<0.004	<0.002	NA	NA		<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001		<0.001			
	10/28/2015	8260B	NA	NA	NA	NA	NA	NA	NA	**6.1E-03**	<0.004	**2.9E-03**	NA	NA		<0.001		<0.001	<0.003	<0.001	<0.001			<0.001			
	8/11/2015	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**3.3E-03**	<0.01	<0.01		<0.001		<0.001	<0.003	<0.001	<0.001			<0.001			
	6/2/2015	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		NA		NA	NA	NA	NA			NA			
	3/10/2015	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		NA		NA	NA	NA	NA			NA			
	11/1/2014	8270C	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		NA		NA	NA	NA	NA			NA			
	9/11/2014	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.001		1.1E-03	<0.003	1.7E-03	<0.001			<0.001			
	6/5/2014	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		NA		NA	NA	NA	NA			NA			
	3/10/2014	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		NA		NA	NA	NA	NA			NA			
	11/12/2013	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		NA		NA	NA	NA	NA			NA			
	9/3/2013	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**9.4E-03**	<0.004	**4.8E-03**	<0.01	<0.01		<0.001		2.8E-03	<0.003	2.2E-03	1.5E-03			1.70E-03			
	6/12/2013	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		NA		NA	NA	NA	NA						
	3/18/2013	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		NA		NA	NA	NA	NA						
	12/5/2012 [1]	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		NA		NA	NA	NA	NA						
	8/21/2012	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.005		<0.005	<0.015	<0.005	<0.005						
	6/12/2012	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.016**		NA		NA	NA	NA	NA						
	3/20/2012	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	0.015	<0.01	**0.015**	<0.01	<0.01	0.034	**0.078**		NA		NA	NA	NA	NA						
	12/14/2011	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.01**	<0.01	<0.01				NA		NA	NA	NA	NA						
	9/27/2011	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.012**	<0.01	**0.011**				NA		NA	NA	NA	NA						
	6/15/2011	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01				0.005		<0.005	<0.005	<0.005	<0.005						
	3/2/2011	8270C	<0.01	<0.01	<0.01	0.01	0.012	<0.01	<0.01	NL	<0.01	**0.015**				NA		NA	NA	NA	NA						
	11/2/2010	8270C	0.01	<0.01	<0.01	<0.01	0.011	<0.01	<0.01	NL	<0.01	<0.01				NA		NA	NA	NA	NA						
	9/15/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	NL	<0.01	<0.01				NA		NA	NA	NA	NA						
	6/10/2010	8310	<0.0025	NL	<0.00007	NL	0.011	NL	0.005	**0.033**	<0.002	**0.089**				NA		NA	NA	NA	NA						
	3/8/2010	8270C/8260B	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	NL	<0.05	**3.6E-03**				2.8E-03		2.8E-03	1.4E-03	4.2E-03	0.002						

8.8.4 NAPIS-1, NAPIS-2, NAPIS-3, KA-3

Volatile and Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS			Acenaphthene (mg/L)	Aniline (mg/L)	Benz(a)anthracene (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Fluorene (mg/L)	2-Methylphenol (mg/L)	Phenanthrene (mg/L)	1-Methylnaphthalene (mg/L)	2-Methylnaphthalene (mg/L)	Naphthalene (mg/L)	3+4-Methylphenol (mg/L)	Phenol (mg/L)	Acetone (mg/L)	1,1-Dichloroethane (mg/L)	1,1-Dichloroethene (mg/L)	Isopropylbenzene (mg/L)	n-Butylbenzene (mg/L)	n-Propylbenzene (mg/L)	sec-Butylbenzene (mg/L)	cis-1,2-DCE (mg/L)	tert-Butylbenzene (mg/L)	1,2,4-Trimethylbenzene (mg/L)	Bromodichloromethane (mg/L)	4-Chlorotoluene (mg/L)	1,2-Dichloroethane (EDC) (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	**0.005**	NE	**0.025**	**0.005**	NE	NE	NE	NE	**0.005**	NE	NE	NE	NE	0.01
40 CFR 141.62 MCL			NE	NE	NE	**0.006**	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	7.0E-03	NE	NE	NE	NE	0.07	NE	NE	NE	NE	**0.005**
NMED Tap Water (JUL 2015)			**0.535**	NE	**0.000343**	0.0556	**0.288**	NE	**0.17**	NE	NE	**0.00165**	NE	5.76	**14.1**	2.75E-02	2.84E-01	**0.447**	NE	NE	NE	0.0365	NE	NE	**0.00134**	NE	0.0276
EPA RSL for Tap Water (MAY 2016)			0.53	**0.013**	1.2E-05	0.0056	0.29	**0.93**	NE	**1.1E-03**	**0.036**	1.7E-04	**0.93**	5.8	14	2.8E-03	2.8E-01	0.45	**1.0**	**0.66**	**2.0**	0.036	**0.69**	**0.015**	0.00013	NE	0.017
Well ID	DATE SAMPLED	METHOD																									
NAPIS 3	11/14/2016	8260B	NA	NA	NA	NA	NA	NA	NA	<0.004	<0.004	<0.002	NA	NA	<0.01	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	<0.001	2.5E-04			3.4E-04
	9/1/2016	8260B	NA	NA	NA	NA	NA	NA	NA	<0.004	<0.004	0.0001	NA	NA	0.011	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	<0.001	<0.001			
	6/7/2016	8260B	NA	NA	NA	NA	NA	NA	NA	<0.004	<0.004	<0.002	NA	NA	<0.01	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	<0.001	<0.001			
	3/1/2016	8260B	NA	NA	NA	NA	NA	NA	NA	**2.1E-03**	<0.004	5.5E-04	NA	NA		4.7E-04	1.6E-04	8.5E-04	2.1E-04	1.0E-03	3.9E-04	1.1E-04	<0.001	<0.001			
	10/28/2015	8260B	NA	NA	NA	NA	NA	NA	NA	<0.001	<0.001	<0.002															
	8/11/2015	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	6/2/2015	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	3/10/2015	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	11/13/2014	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	9/14/2015	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01															
	6/5/2014	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01															
	3/10/2014	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	11/12/2013	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	9/3/2013	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	6/12/2013	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	3/18/2013	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	12/5/2012 [1]	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	10/2/2012	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	6/12/2012	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	3/20/2012	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	12/14/2011	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	9/27/2011	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	6/15/2011	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.004	<0.01	<0.01															
	3/2/2011	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01															
	11/2/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01															
	9/15/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01															
	6/10/2010	8310	<0.005	NL	NL	NL	4.9E-03	NL	4.5E-03	**0.05**	<0.002	**0.045**															
	3/8/2010	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01															
KA 3	11/14/2016	8260B	NA	NA	NA	NA	NA	NA	NA	1.1E-03	6.2E-04	1.5E-03			5.4E-03			1.1E-04	<0.003	2.5E-04	3.6E-04	1.8E-04	2.6E-04	<0.001			
	9/1/2016	8260B	NA	NA	NA	NA	NA	NA	NA	**2.8E-03**	1.8E-03	0.005			9.7E-03			2.5E-04	<0.003	2.6E-04	1.8E-04	<0.001	2.0E-04	<0.001			
	6/7/2016	8260B	NA	NA	NA	NA	NA	NA	NA	6.3E-04	4.6E-04	1.1E-03			<0.01			1.7E-04	<0.003	<0.001	<0.001	1.6E-04	2.3E-04	1.2E-04			
	3/3/2016	8260B	NA	NA	NA	NA	NA	NA	NA	3.3E-04	<0.004	7.7E-04						1.6E-04	<0.003	<0.001	<0.001	1.1E-04		<0.001			
	10/28/2015	8260B	NA	NA	NA	NA	NA	NA	NA	<0.004	<0.004	<0.002															
	8/11/2015	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	6/2/2015	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	3/10/2015	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	11/11/2014	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	9/11/2014	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01															
	6/5/2014	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01															
	3/10/2014	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	11/12/2013	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	9/3/2013	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	6/12/2013	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	3/18/2013	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	12/5/2012 [1]	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	8/21/2012	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	6/12/2012	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	3/20/2012	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	12/14/2011	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.035**	<0.01	**0.019**															
	9/27/2011	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	6/15/2011	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01															
	3/2/2011	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01															
	11/2/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	**0.013**															
	9/15/2010	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	**0.011**															
	6/10/2010	8310	<0.005	NL	<0.00007	NL	8.0E-04	4.5E-03	<0.0006	<0.002	<0.002	<0.002															
	3/8/2010	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01															

8.8.4 NAPIS-1, NAPIS-2, NAPIS-3, KA-3

Volatile and Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS	Acenaphthene (mg/L)	Aniline (mg/L)	Benz(a)anthracene (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Fluorene (mg/L)	2-Methylphenol (mg/L)	Phenanthrene (mg/L)	1-Methylnaphthalene (mg/L)	2-Methylnaphthalene (mg/L)	Naphthalene (mg/L)	3+4-Methylphenol (mg/L)	Phenol (mg/L)	Acetone (mg/L)	1,1-Dichloroethane (mg/L)	1,1-Dichloroethene (mg/L)	Isopropylbenzene (mg/L)	n-Butylbenzene (mg/L)	n-Propylbenzene (mg/L)	sec-Butylbenzene (mg/L)	cis-1,2-DCE (mg/L)	tert-Butylbenzene (mg/L)	1,2,4-Trimethylbenzene (mg/L)	Bromodichloromethane (mg/L)	4-Chlorotoluene (mg/L)	1,2-Dichloroethane (EDC) (mg/L)
WQCC 20NMAC 6.2.3103	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	**0.005**	NE	**0.025**	**0.005**	NE	NE	NE	NE	**0.005**	NE	NE	NE	NE	0.01
40 CFR 141.62 MCL	NE	NE	NE	**0.006**	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	7.0E-03	NE	NE	NE	NE	0.07	NE	NE	NE	NE	**0.005**
NMED Tap Water (JUL 2015)	**0.535**	NE	**0.000343**	0.0556	**0.288**	NE	**0.17**	NE	NE	**0.00165**	NE	5.76	**14.1**	2.75E-02	2.84E-01	**0.447**	NE	NE	NE	0.0365	NE	NE	**0.00134**	NE	0.0276
EPA RSL for Tap Water (MAY 2016)	0.53	**0.013**	1.2E-05	0.0056	0.29	**0.93**	NE	**1.1E-03**	**0.036**	1.7E-04	**0.93**	5.8	14	2.8E-03	2.8E-01	0.45	**1.0**	**0.66**	**2.0**	0.036	**0.69**	**0.015**	0.00013	NE	0.017
Well ID / **DATE SAMPLED** / **METHOD**																									

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

40 CFR 141.62 Detection Limits for Inorganic Contaminants

NMED Tap Water

EPA Regional Screening Level (RSL) Summary Table

NOTES

1) 8270C analysis was missed during the 4th quarter sampling on 11/28/12.

8.9 OAPIS-1

BTEX Analytical Result Summary

STANDARDS			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED TAP WATER (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	1.5E-03	0.19	0.014
Well ID	**DATE SAMPLED**	**METHOD**					
OAPIS-1	11/14/2016	8260B	**0.15**	1.6E-03	0.018	<0.015	**0.26**
	9/1/2016	8260B	**0.18**	1.5E-03	0.023	9.2E-03	**0.24**
	6/7/2016	8260B	**0.15**	0.0014	0.018	8.3E-03	**0.24**
	3/1/2016	8260B	**0.076**	6.0E-04	9.8E-03	3.7E-03	**0.26**
	10/29/2015	8260B	**0.13**	<0.01	0.016	<0.015	**0.26**
	8/11/2015	8260B	**0.14**	<0.005	0.015	<0.0075	**0.29**
	6/2/2015	8260B	**0.09**	<0.001	0.009	4.3E-03	**0.28**
	3/10/2015	8260B	**0.065**	<0.005	5.4E-03	<0.0075	**0.29**
	11/11/2014	8260B	**0.15**	<0.005	0.01	<0.0075	**0.4**
	9/12/2014	8260B	**0.12**	<0.005	0.013	<0.0075	**0.32**
	6/5/2014	8260B	**0.096**	<0.002	0.01	4.9E-03	**0.36**
	3/10/2014	8260B	**0.07**	<0.001	6.8E-03	3.3E-03	**0.45**
	11/11/2013	8260B	**0.089**	<0.001	0.01	2.9E-03	**0.43**
	9/3/2013	8260B	**0.081**	<0.005	0.012	<0.0075	**0.42**
	6/12/2013	8260B	**0.071**	<0.002	0.01	3.3E-03	**0.51**
	3/18/2013	8260B	**0.027**	<0.005	<0.005	7.5E-03	**0.42**

DEFINITIONS

NE = Not established
NA = Not analyzed
Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.9.1 OAPIS-1

General Chemistry and DRO/GRO Analytical Result Summary

STANDARDS			PARAMETERS							
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	NE	**10**	**600.0**	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	**10.0**	10	NE	NE	NE	NE
NMED TAP WATER (JUL 2015)			1.2	NE	1.97	31.6	NE	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			0.8	NE	2	32	NE	NE	NE	NE
Well ID	**DATE SAMPLED**	**METHOD**								
OAPIS-1	11/14/2016	300.0/8015D	1.3	**1600**	<2.0	<2.0	13	8.6	1.4	<5.0
	9/1/2016	300.0/8015D	1.2	**1900**	<0.5	<0.5	14	9.5	1.7	<5.0
	3/7/2016	300.0/8015D	1.6	**1800**	<1.0	<1.0	19	5.2	1.2	<5.0
	3/1/2016	300.0/8015D	**2.0**	**1700**	<2.0	<2.0	23	6.1	0.86	<5.0
	10/29/2015	300.0/8015D	1.6	**1800**	<1.0	<1.0	18	7.1	0.8	<5.0
	8/11/2015	300.0/8015D	1.4	**2000**	<1.0	<1.0	20	3.7	0.86	<5.0
	6/3/2015	300.0/8015D	**1.9**	**1800**	<2.0	<2.0	26	4.4	NA	<5.0
	3/10/2015	300.0/8015D	1.4	**1800**	<0.5	<0.5	30	6.5	0.56	<5.0
	11/11/2014	300.0/8015D	**1.9**	**1700**	<2.0	<2.0	23	9.2	0.79	<5.0
	9/12/2014	300.0/8015D	**14.2**	**1700**	<1.0	<1.0	22	6.8	0.75	<5.0
	6/5/2014	300.0/8015D	1.3	**1400**	<2.0	<2.0	22	11	0.7	<5.0
	3/10/2014	300.0/8015D	**1.7**	**1700**	<1.0	<1.0	37	6.4	0.71	<5.0
	11/11/2013	300.0/8015D	**2.0**	**1600**	5.4	5.4	38	23	0.81	NA
	9/3/2013	300.0/8015D	1.6	**1800**	<1.0	<1.0	38	10	0.73	7.5
	6/12/2013	300.0/8015D	1.6	**1800**	<1.0	<1.0	41	7.1	0.94	<5.0
	3/18/2013	300.0/8015D	**1.8**	**1600**	<2.0	<2.0	65	6.0	0.48	<5.0

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.9.2 OAPIS-1

Total Metals Analytical Result Summary

STANDARDS			PARAMETERS										
			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)	Cyanide (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.002**	**0.03**	**10**	**0.2**
40 CFR 141.62 MCL			**0.01**	2.0	0.1	1.3	NE	**0.015**	NE	0.05	0.002	0.03	NE	0.2
NMED TAP WATER (JUL 2015)			0.000513	3.28	0.00559	0.79	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96	0.00146
EPA RSL for Tap Water (MAY 2016)			5.20E-05	0.38	NE	0.8	14	0.015	0.43	0.1	6.30E-04	0.06	6	0.015
Well ID	**DATE SAMPLED**	**METHOD**												
OAPIS-1	11/14/2016	200.7/200.8	**0.014**	0.96	2.8E-03	3.5E-03	**8.3**	0.011	**1.8**	0.02	8.9E-05	0.012	0.028	**0.504**
	9/1/2016	200.7/200.8	**0.018**	0.89	5.3E-03	0.014	**9.1**	0.015	**1.9**	<0.05	NA	0.02	0.064	0.106
	3/7/2016	200.7/200.8	**0.017**	0.77	<0.006	0.011	**9.2**	5.5E-03	**1.9**	0.024	0.00002	0.014	0.015	0.093
	3/1/2016	200.7/200.8	9.7E-03	0.72	<0.006	<0.006	**5.7**	3.4E-03	**1.7**	0.011	<0.0002	0.016	0.016	0.0867
	10/29/2015	200.7/200.8	**0.015**	0.75	<0.006	<0.006	**8.4**	0.015	**1.9**	0.022	<0.0002	0.017	0.055	0.0684
	8/11/2015	200.7/200.8	**0.012**	0.72	<0.006	<0.006	**8.4**	7.7E-03	**1.8**	0.018	<0.0002	0.02	0.035	0.0796
	6/2/2015	200.7/200.8	**0.012**	0.71	8.6E-03	<0.006	**7.5**	7.1E-03	**1.9**	0.018	<0.0002	0.022	0.031	0.0887
	3/10/2015	200.7/200.8	<0.05	0.66	<0.006	<0.006	**6.9**	5.9E-03	**1.7**	<0.05	<0.0002	0.023	0.02	0.0804
	11/11/2014	200.7/200.8	**0.016**	0.75	<0.006	<0.006	**8.4**	7.3E-03	**1.9**	0.03	<0.0002	0.03	0.031	0.0587
	9/12/2014	200.7/200.8	**0.018**	0.72	<0.006	<0.006	**7.9**	5.1E-03	**1.9**	0.035	<0.0002	**0.031**	0.021	0.0908
	6/5/2014	200.7/200.8	**0.016**	0.93	0.022	0.06	**12**	**0.029**	**2.4**	0.035	<0.0002	**0.034**	0.15	0.0753
	3/10/2014	200.7/200.8	**0.013**	0.71	0.011	0.025	**8.6**	**0.017**	**2.1**	0.026	<0.0002	**0.039**	0.054	0.0846
	11/11/2013	200.7/200.8	**0.013**	0.69	0.012	0.017	**12**	0.012	**2.1**	0.023	<0.0002	**0.044**	0.063	0.0765
	9/3/2013	200.7/200.8	**0.012**	0.7	0.012	0.015	**8.5**	9.1E-03	**2.0**	0.018	<0.0002	**0.045**	0.06	0.087
	6/12/2013	200.7/200.8	**0.012**	0.75	0.011	0.024	**10**	NL	**2.4**	0.022	<0.0002	**0.049**	0.058	0.0689
	3/18/2013	200.7/200.8	8.2E-03	0.61	0.01	0.026	**7.9**	8.5E-03	**2.1**	7.5E-03	<0.0002	**0.065**	0.062	NA

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.9.3 OAPIS-1

Dissolved Metals Analytical Result Summary

STANDARDS			PARAMETERS										
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.03	NE
NMED TAP WATER (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.094	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**												
OAPIS-1	11/14/2016	200.7/200.8	**0.017**	0.87	<0.002	<0.006	<0.006	**7.4**	8.1E-04	**1.8**	0.033	<0.005	0.014	7.1E-03
	9/1/2016	200.7/200.8	**0.016**	0.85	<0.002	<0.006	<0.006	**7.5**	9.9E-04	**1.8**	0.025	<0.005	0.015	5.9E-03
	6/7/2016	200.7/200.8	**0.014**	0.8	<0.002	<0.006	<0.006	**7.2**	<0.005	**2.0**	0.024	<0.005	0.013	4.7E-03
	3/1/2016	200.7/200.8	0.01	0.62	<0.002	<0.006	<0.006	**4.6**	9.2E-04	**1.6**	0.014	<0.005	0.015	0.024
	10/29/2015	200.7/200.8	**0.017**	0.72	<0.002	<0.006	<0.006	**5.2**	<0.0025	**1.8**	0.034	<0.005	0.015	<0.01
	8/11/2015	200.7/200.8	**0.012**	0.59	<0.002	6.9E-03	<0.006	**4.7**	<0.0025	**1.7**	0.021	<0.005	0.019	0.18
	6/2/2015	200.7/200.8	**0.012**	0.56	<0.002	<0.006	<0.006	**3.2**	<0.01	**1.7**	0.017	<0.005	0.021	0.015
	3/10/2015	200.7/200.8	<0.02	0.63	<0.002	<0.006	<0.006	**4.9**	<0.001	**1.8**	<0.05	<0.005	0.02	0.019
	11/11/2014	200.7/200.8	<0.02	0.68	<0.002	<0.006	<0.006	**7.6**	<0.001	**1.8**	0.022	<0.005	0.022	0.029
	9/12/2014	200.7/200.8	**0.018**	0.78	<0.002	<0.006	<0.006	**7.2**	<0.001	**1.8**	0.034	<0.005	0.029	0.021
	6/5/2014	200.7/200.8	**0.011**	0.8	<0.002	8.2E-03	0.025	**10**	**0.02**	**2.2**	0.014	<0.005	**0.039**	0.1
	3/10/2014	200.7/200.8	8.3E-03	0.61	<0.002	<0.006	<0.006	**5.4**	7.9E-03	**2.0**	8.4E-03	<0.005	**0.039**	0.046
	11/11/2013	200.7/200.8	**0.013**	0.59	<0.002	<0.006	<0.006	**6.4**	1.4E-03	**2.1**	0.026	<0.025	**0.042**	0.056
	9/3/2013	200.7/200.8	**0.012**	0.55	<0.002	<0.006	<0.006	**5.2**	<0.005	**2.0**	0.023	<0.005	**0.047**	0.05
	6/12/2013	200.7/200.8	**0.013**	0.65	<0.002	<0.006	<0.006	**6.2**	1.8E-03	**2.7**	0.03	<0.025	**0.053**	0.038
	3/18/2013	200.7/200.8	7.4E-03	0.44	<0.002	<0.006	<0.006	**1.8**	6.3E-03	**1.9**	9.4E-03	<0.005	**0.062**	0.046

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.9.4 OAPIS-1

Volatile and Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS			PARAMETERS														
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	1,2-Dichloroethane (EDC) (mg/L)	1,2-Dibromoethane (EDB) (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	*(Methyl ethyl ketone)* 2-Butanone (mg/L)	1,1-Dichloroethane (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	4-Methyl-2-pentanone (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	0.0	0.0001	NE	NE	NE	NE	NE	**0.025**	NE	NE	NE	NE	NE	NE
40 CFR 141.62 MCL			NE	NE	**0.005**	**0.00005**	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NMED TAP WATER (JUL 2015)			NE	NE	0.00171	0.0000746	**0.00165**	NE	NE	**14.1**	**5.56**	0.0275	**0.45**	NE	**1.24**	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			**0.015**	**0.12**	0.017	0.0000075	1.7E-04	**1.1E-03**	**0.036**	14.0	5.6	2.8E-03	0.045	NE	6.3	**1.0**	**0.66**	**2.0**
Well ID	**DATE SAMPLED**	**METHOD**																
OAPIS-1	11/14/2016	8260B/8270C	0.012	<0.01	3.2E-03	<0.01	**3.3E-03**	**0.023**	<0.01	<0.1	<0.1	<0.01	2.7E-03	<0.01	<0.1	3.1E-03	4.4E-03	2.5E-03
	9/1/2016	8260B/8270C	0.012	<0.005	<0.005	<0.005	**0.003**	**0.071**	<0.02	0.031	<0.05	1.4E-03	3.1E-03	9.9E-04	<0.05	0.001	4.0E-03	<0.005
	6/7/2016	8260B/8270C	0.012	1.5E-04	<0.001	<0.001	**7.5E-03**	**0.074**	4.4E-04	0.025	3.7E-03	1.3E-03	2.6E-03	8.4E-04	<0.01	7.8E-04	3.3E-03	6.3E-04
	3/1/2016	8260B/8270C	2.8E-04	<0.001	**6.2E-03**		1.4E-03	**0.013**	<0.004	0.034	5.5E-03	1.2E-03	1.4E-03	3.8E-04	1.9E-03	2.7E-04	1.5E-03	3.3E-04
	10/29/2015	8260B/8270C	<0.01	<0.01			<0.02	<0.04	<0.04	<0.1		<0.01	<0.01			<0.03	<0.01	
	8/11/2015	8260B/8270C	6.2E-03	<0.005			<0.01	**0.021**	<0.02	<0.05		<0.005	<0.005			<0.015	<0.005	
	6/2/2015	8260B/8270C	5.1E-03	<0.001			**2.4E-03**	**0.03**	<0.04	0.028		<0.001	1.4E-03			<0.003	1.8E-03	
	3/10/2015	8260B/8270C	<0.005	<0.005			<0.01	<0.02	<0.02	<0.05		<0.005	<0.005			<0.015	<0.005	
	11/11/2014	8260B/8270C	<0.005	<0.005			<0.01	**0.032**	<0.02	<0.05		<0.005	<0.005			<0.015	<0.005	
	9/12/2014	8260B/8270C	<0.005	<0.005			<0.01	**0.03**	<0.02	<0.05		<0.005	<0.005			<0.015	<0.005	
	6/5/2014	8260B/8270C	6.6E-03	<0.002			<0.004	**0.03**	<0.008	<0.02		<0.002	2.2E-03			<0.006	2.3E-03	
	3/10/2014	8260B/8270C	2.5E-03	<0.001			<0.002	**0.013**	<0.004	0.016		<0.001	1.5E-03			<0.003	1.6E-03	
	11/11/2013	8260B/8270C	1.6E-03	<0.001			<0.002	**0.014**	<0.004	<0.01		1.1E-03	2.5E-03			<0.003	2.5E-03	
	9/3/2013	8260B/8270C	<0.005	<0.005			<0.01	<0.02	<0.02	<0.05		<0.005	<0.005			<0.015	<0.005	
	6/12/2013	8260B/8270C	0.002	<0.002			<0.004	**0.014**	<0.008	<0.02		<0.002	2.2E-03			<0.006	2.3E-03	
	3/18/2013	8260B/8270C																

DEFINITIONS
NE = Not established
NA = Not analyzed
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.9.4 OAPIS-1

Volatile and Semi-Volatile Organic Compound Analytical Result Summary

Bis(2-ethylhexyl) phthalate (mg/L)	Di-n-octyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	Phenol (mg/L)
NE	NE	NE	**0.005**
0.006	NE	NE	NE
0.0556	NE	**0.354**	5.76
0.0056	**0.2**	0.36	5.8
<0.01	7.1E-03	0.011	<0.1
3.3E-03	3.3E-03	0.006	<0.01
1.9E-02	2.5E-02	0.028	<0.05
		0.007	<0.01
		<0.1	<0.1
		0.024	<0.01
		0.029	<0.01
		<0.01	<0.01
		<0.05	<0.05
		0.028	<0.01
		0.032	<0.01
		<0.01	<0.01
		<0.01	<0.01
		0.022	<0.01
		0.023	<0.01
			0.01

8.10 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)

BTEX and DRO/GRO Analytical Result Summary

STANDARDS			PARAMETERS							
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE	NE	NE	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE	NE	NE	NE
NMED TAP WATER (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014	NE	NE	NE
SAMPLE ID	**DATE SAMPLED**	**METHOD**								
East LDU [3]	11/17/2016	8260	**0.11**	8.2E-03	0.1	9.8E-03	6.3E-03	16	1.6	<5.0
	6/7/2016	8260B/8015D	**0.36**	0.032	0.025	0.097	0.013	16	4.9	<5.0
	3/1/2016	8260B/8015D	**0.41**	0.03	0.27	0.14	0.011	21	5.6	<5.0
	10/29/2015	8260B/8015D	**0.56**	0.044	0.25	**1.1**	0.022	24	5.5	<5.0
	8/11/2015	8260B/8015D	**1.2**	**1.1**	0.34	**1.7**	<0.02	19	15	<5.0
	6/3/2015	8260B/8015D	**1.2**	**1**	0.43	**2**	<0.02	17	0.54	<5.0
	3/10/2015	8021B/8015D	**1.3**	0.46	0.47	**1.9**	<0.05	26	9.4	<5.0
	11/11/2014	8021B/8015B	**1.7**	**4.8**	**0.72**	**8.2**	<0.5	17	38	NL
	6/3/2014	8021B/8015B	**8.9**	**21**	**2.3**	**19**	<0.5	29	130	<5.0
	3/10/2014	8021B/8015B	**9.8**	**27**	**3.8**	**25**	<0.5	310	200	<50
	11/12/2013	8021B/8015B	**0.19**	0.17	0.13	**5.6**	<0.5	410	32	NA
	6/12/2013	8021B/8015B	**9.4**	**2.2**	0.51	**6.1**	<0.5	18	38	<5.0
	3/18/2013	8021B/8015B	**12**	**4.6**	0.61	**7.0**	<0.5	28	50	<5.0
	11/28/2012	8021B/8015B	**1.1**	**0.89**	0.51	**6.7**	<0.25	19	27	<5.0
	8/21/2012	8021B/8015B	**1.2**	0.33	0.46	**5.7**	<0.25	10	17	<5.0
	6/12/2012	8021B/8015B	**1.3**	**1.1**	0.46	**6.3**	<0.25	27	24	<5.0
	3/20/2012	8021B/8015B	**1.4**	**3.1**	0.56	**8.0**	<0.5	30	31	<5.0
	12/14/2011	8021B/8015B	**1.8**	**4.2**	0.56	**6.7**	<0.25	33	33	<5.0
	9/26/2011	8021B/8015B	**2.8**	**7.2**	0.68	**7.0**	<0.13	34	43	<50
	6/15/2011	8260B/8015B	**1.8**	0.28	0.32	**3.8**	<0.02	27	13	<5.0
	3/3/2011	8021B/8015B	**2.6**	**7.2**	0.45	**3.9**	<0.5	35	83	<5.0
	11/11/2010	8021B/8015B	**10**	**28**	**1.3**	**9.0**	<0.05	63	100	
	9/20/2010	8021B/8015B	**10**	**20**	**1.1**	**8.1**	<0.13	120	100	
	3/18/2010	8021B/8015B	**9.1**	**17**	**1.4**	**9.9**	NL	16000	120	
West LDU [2]	11/17/2016	8260B/8015D	**0.14**	0.015	0.038	0.024	<0.01	8.6	2.2	<5.0
	6/7/2016	8260B/8015D	**0.41**	0.049	0.05	0.14	3.2E-03	7.3	3.6	<5.0
	3/1/2016	8260B/8015D	**0.26**	0.053	0.027	0.047	<0.02	7.2	1.9	<5.0
	10/29/2015	8260B/8015D	**0.5**	0.19	0.03	0.29	<0.01	12	3	<5.0
	8/11/2015	8260B/8015D	**2.7**	0.74	0.083	0.44	<0.02	9.9	11	<5.0
	6/3/2015	8260B/8015D	Not enough water to collect samples							
	3/10/2015	8021B/8015D	**0.45**	0.086	0.085	0.2	<0.012	12	2.7	<5.0
	9/11/2014	8021B/8015B	**0.87**	0.3	0.11	**0.94**	<0.12	6.6	6.7	<5.0
	6/3/2014	8021B/8015B	**0.52**	0.035	0.18	**2.8**	<0.05	8.0	12	<5.0
	3/10/2014	8021B/8015B	**0.7**	0.14	0.17	**3.3**	<0.25	14	13	<5.0
	11/12/2013	8021B/8015B	**2.8**	**3.7**	0.31	**6.0**	<0.25	17	30	NA
	9/5/2013	8021B/8015B	**1.5**	**3.1**	0.28	**7.8**	<0.25	110	47	<50
	6/12/2013	8021B/8015B	**6.0**	**3.0**	0.49	**5.2**	<0.25	4.7	31	<5.0
	3/18/2013	8021B/8015B	**3.9**	0.42	0.38	**4.0**	<0.25	2.6	20	<5.0
	11/28/2012	8021B/8015B	**2.0**	**1.9**	0.57	**5.1**	<0.25	5.7	25	<5.0
	8/21/2012	8021B/8015B	**1.8**	**3.2**	0.66	**3.1**	<0.25	4.0	18	<5.0
	6/12/2012	8021B/8015B	**1.4**	**3.5**	0.41	**5.7**	<0.25	9.0	27	<5.0

8.10 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)

BTEX and DRO/GRO Analytical Result Summary

STANDARDS			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE	NE	NE	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE	NE	NE	NE
NMED TAP WATER (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014	NE	NE	NE
SAMPLE ID	**DATE SAMPLED**	**METHOD**								
	3/20/2012	8021B/8015B	**1.6**	**6.0**	0.69	**7.6**	<0.012	6.9	42	<5.0
	12/14/2011	8021B/8015B	**2.3**	**8.3**	**0.83**	**7.2**	<0.25	22	45	<5.0
	9/26/2011	8021B/8015B	**3.6**	**9.3**	0.59	**5.5**	<0.025	14	45	<5.0
	6/15/2011	8260B/8015B	**0.094**	0.33	0.029	0.26	<0.01	13	2.2	<5.0
	3/3/2011	8021B/8015B	**6.1**	**17**	**0.92**	**7.9**	<0.5	15	40	<5.0
	11/11/2010	8021B/8015B	**7.0**	**18**	**0.9**	**6.1**	<0.001	16	67	
	9/20/2010	8021B/8015B	**3.1**	**5.8**	0.36	**2.9**	<0.0025	9.0	26	
	3/18/2010	8021B/8015B	**2.7**	**4.2**	0.19	**1.4**	NL	16	24	
Oil Sump LDU [1]	6/12/2013	8021B/8015B	**4.5**	**9.5**	**0.72**	**6.3**	<0.5	17	42	<5.0
	3/18/2013	8021B/8015B	**5.1**	**8.8**	**0.71**	**5.5**	<0.5	20	40	<5.0
	11/28/2012	8021B/8015B	**2.7**	**6.6**	0.57	**5.4**	<0.5	13	37	<5.0
	8/21/2012	8021B/8015B	**1.8**	**6.0**	0.59	**5.5**	<0.5	8.8	28	<5.0
	6/12/2012	8021B/8015B	**2.1**	**6.2**	0.59	**5.1**	<0.5	18	36	<5.0
	3/20/2012	8021B/8015B	**2.0**	**8.1**	**0.89**	**6.9**	<0.5	42	45	<5.0
	12/14/2011	8021B/8015B	**3.4**	**7.5**	**0.76**	**7.4**	<0.5	14	52	<5.0
	9/26/2011	8021B/8015B	**3.5**	**10**	**0.76**	**6.4**	<0.5	18	49	<50
	6/15/2011	8260B/8015B	**3.0**	**7.1**	0.48	**3.9**	<0.2	20	38	<5.0
	3/3/2011	8021B/8015B	**5.6**	**13**	**1.2**	**7.9**	<0.5	680	120	<15
	11/11/2010	8021B/8015B	**8.8**	**19**	**1.6**	**10**	<0.2	390	110	
	9/20/2010	8021B/8015B	**9.4**	**29**	**6.1**	**40**	<0.5	1400	650	
	3/18/2010	8021B/8015B	**5.6**	**33**	**6.4**	**38**	<0.95	35	69	

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) Oil Sump LDU - Dry - 2013 Third and fourth Quarters. 2014 and 2015 - dry.

2) West LDU - 2014 - fourth quarter - not enough water to collect samples (West bay out of service). 2015 - Second Quarter - not enough water to collect samples.

3) East LDU - No samples collected third quarter 2014.

8.10.1 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)

Total Metals Analytical Result Summary

STANDARDS			PARAMETERS										
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	0.002	0.03	NE
NMED TAP WATER (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	6.3E-04	0.06	6
SAMPLE ID	**DATE SAMPLED**	**METHOD**												
East LDU [3]	11/17/2016	200.7/200.8	3.3E-03	0.097	<0.002	**0.53**	9.7E-03	**55**	2.7E-03	**16**	2.3E-03	2.8E-04	<0.0025	0.74
	6/7/2016	200.7/200.8	5.3E-03	0.16	<0.002	**0.57**	0.015	**3.8**	1.1E-03	**3.6**	1.7E-03	1.6E-04	6.2E-04	0.088
	3/1/2016	200.7/200.8	4.6E-03	0.13	<0.002	**0.47**	<0.006	**1.5**	2.6E-04	**8.0**	1.3E-03	6.5E-05	4.8E-04	0.056
	10/29/2015	200.7/200.8	5.2E-03	0.21	<0.002	**0.74**	<0.006	0.051	<0.005	**3.3**	2.9E-03	<0.0002	<0.005	<0.01
	8/11/2015	200.7/200.8	<0.05	0.31	<0.002	**0.95**	<0.006	0.29	<0.025	**2.7**	<0.05	<0.0002	<0.025	0.016
	6/3/2015	200.7/200.8	8.9E-03	0.34	<0.002	**0.94**	<0.006	0.84	<0.025	**3.0**	<0.005	<0.0002	<0.0025	<0.01
	3/10/2015	200.7/200.8	4.7E-03	0.16	<0.002	**0.85**	<0.006	**3.0**	<0.001	**6.5**	2.4E-03	<0.0002	1.3E-03	0.054
	11/11/2014	200.7/200.8	1.5E-03	0.12	<0.002	**0.22**	<0.006	**19**	<0.001	**5.4**	<0.001	<0.0002	<0.001	0.18
	6/3/2014	200.7/200.8	**0.019**	0.33	<0.002	**0.54**	<0.006	**1.1**	<0.005	**1.5**	<0.005	<0.0002	<0.005	0.027
	3/10/2014	200.7/200.8	9.3E-03	0.2	<0.002	**0.71**	<0.006	**4.4**	<0.005	**3.1**	<0.005	2.2E-04	<0.005	0.12
	11/12/2013	200.7/200.8	**0.012**	0.35	<0.01	**0.44**	<0.03	0.32	<0.005	**0.26**	6.3E-03	<0.0002	<0.005	<0.05
	6/12/2013	200.7/200.8	0.007	0.56	<0.002	**0.72**	<0.006	0.091	<0.005	**0.56**	8.1E-03	<0.0002	<0.005	<0.01
	3/18/2013	200.7/200.8	5.9E-03	0.48	<0.002	**0.76**	<0.006	0.09	<0.005	**0.62**	2.7E-03	<0.0002	<0.0025	<0.01
	11/28/2012	200.7/200.8	9.5E-03	0.53	<0.002	**0.71**	<0.006	0.23	<0.005	**1.1**	3.6E-03	<0.0002	<0.0025	<0.01
	8/21/2012	200.7/200.8	9.4E-03	0.67	<0.002	**0.51**	<0.006	0.099	<0.005	**1.2**	<0.05	<0.0002	<0.0025	<0.01
	6/12/2012	200.7/200.8	9.9E-03	0.6	<0.002	**0.31**	<0.006	0.17	<0.005	**1.2**	6.5E-03	<0.001	<0.005	<0.01
	3/20/2012	200.7/200.8	3.2E-03	0.44	<0.002	**0.11**	<0.006	**2.3**	<0.005	**0.58**	2.6E-03	<0.0002	<0.0025	0.064
	12/14/2011	200.7/200.8	8.2E-03	0.34	<0.002	**0.14**	<0.006	0.54	<0.005	**0.42**	<0.0025	<0.0002	<0.0025	0.018
	9/26/2011	200.7/200.8	3.9E-03	0.59	<0.002	**0.12**	<0.006	0.58	<0.005	**0.56**	<0.0025	<0.0002	<0.0025	0.036
	6/15/2011	200.7/200.8	**0.027**	0.94	<0.002	**0.14**	0.13	**31**	**0.047**	**1.3**	0.037	<0.0002	<0.0025	3.3
	3/3/2011	200.7/200.8	5.8E-03	0.48	<0.002	0.035	<0.006	0.57	<0.005	**0.39**	<0.05	<0.0002	<0.0025	0.014
	11/11/2010	6010B	<0.1	0.94	<0.01	**0.12**	<0.03	**1.1**	<0.025	**1.6**	<0.25	<0.0002	<0.001	<0.1
	9/20/2010	6010B	<0.02	0.54	<0.002	0.039	<0.006	**7.6**	<0.005	**0.8**	<0.05	<0.0008	<0.005	0.21
	3/18/2010	6010B	<0.1	**1.3**	<0.01	**0.25**	0.073	**24**	<0.025	**2.0**	<0.25	<0.0008	<0.001	1.3
West LDU [2]	11/17/2016	200.7/200.8	0.004	0.26	<0.002	**0.77**	<0.006	**3.3**	8.3E-04	**0.6**	2.9E-03	2.6E-04	<0.0025	0.079
	6/7/2016	200.7/200.8	5.1E-03	0.41	<0.002	**1.2**	<0.006	0.49	4.3E-04	**0.5**	0.003	9.5E-05	3.4E-04	0.016
	3/1/2016	200.7/200.8	5.1E-03	0.31	<0.002	**1.5**	<0.006	0.6	2.2E-04	**1.1**	3.4E-03	7.2E-05	6.6E-04	0.018
	10/29/2015	200.7/200.8	0.005	0.57	<0.002	**1.2**	<0.006	0.64	5.5E-04	**0.7**	<0.005	<0.0002	5.8E-04	0.027
	8/11/2015	200.7/200.8	<0.02	0.6	<0.002	**1.4**	<0.006	**1.9**	<0.1	**1.2**	<0.02	<0.0002	<0.01	0.081
	3/10/2015	200.7/200.8	4.6E-03	0.43	<0.002	**0.76**	<0.006	**7.1**	1.6E-03	**3.3**	4.6E-03	<0.0002	1.2E-03	0.21
	9/11/2014	200.7/200.8	3.1E-03	0.52	<0002	**0.28**	<0.006	**5.1**	0.0013	**0.7**	3.4E-03	<0.0002	<0.001	0.57
	6/3/2014	200.7/200.8	<0.005	0.15	<0.002	**0.058**	<0.006	**16**	<0.005	**2.0**	<0.005	<0.0002	<0.005	0.5
	3/10/2014	200.7/200.8	<0.005	0.069	<0.002	**0.15**	<0.006	**9.0**	<0.001	**3.8**	<0.005	<0.0002	<0.001	0.68
	11/12/2013	200.7/200.8	9.9E-03	0.18	<0.002	**0.16**	<0.006	0.34	<0.005	**1.4**	0.014	<0.0002	<0.005	0.032
	9/5/2013	200.7/200.8	8.8E-03	0.23	<0.002	**0.32**	<0.006	**37**	<0.005	**2.0**	<0.02	<0.0002	<0.005	1.1
	6/12/2013	200.7/200.8	5.3E-03	0.22	<0.002	0.036	<0.006	0.31	<0.005	**0.29**	9.7E-03	<0.0002	<0.005	<0.01
	3/18/2013	200.7/200.8	3.6E-03	0.15	<0.002	0.046	<0.006	0.71	<0.005	**0.32**	<0.0025	<0.0002	<0.0025	0.026

8.10.1 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)

Total Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	0.002	0.03	NE
NMED TAP WATER (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	6.3E-04	0.06	6
SAMPLE ID	DATE SAMPLED	METHOD												
	11/28/2012	200.7/200.8	3.1E-03	0.17	<0.002	**0.079**	<0.006	0.72	<0.005	**0.57**	<0.0025	<0.0002	<0.0025	0.016
	8/21/2012	200.7/200.8	<0.0025	0.4	<0.002	0.036	<0.006	0.26	<0.005	**0.22**	<0.05	<0.0002	<0.0025	<0.01
	6/12/2012	200.7/200.8	3.8E-03	0.36	<0.002	0.02	<0.006	0.16	<0.005	0.2	4.9E-03	<0.001	<0.0025	<0.01
	3/20/2012	200.7/200.8	2.8E-03	0.21	<0.002	0.011	<0.006	**1.3**	<0.005	**0.22**	3.5E-03	<0.0002	<0.0025	0.014
	12/14/2011	200.7/200.8	**0.011**	**1.4**	<0.002	**0.082**	0.045	**9.1**	**0.016**	**0.34**	<0.005	**3.6E-03**	<0.0025	0.87
	9/26/2011	200.7/200.8	4.1E-03	0.23	<0.002	**0.072**	<0.006	**1.5**	<0.005	**0.89**	4.8E-03	2.7E-04	<0.0025	0.064
	6/15/2011	200.7/200.8	**0.012**	0.65	<0.002	**0.093**	<0.006	**1.3**	<0.005	**1.1**	0.025	<0.0002	<0.0025	0.061
	3/3/2011	200.7/200.8	8.3E-03	0.49	<0.002	**0.08**	<0.006	**4.1**	<0.005	**1.3**	<0.05	<0.0002	<0.0025	0.067
	11/11/2010	6010B	<0.02	0.5	<0.002	**0.15**	<0.006	0.66	<0.005	**0.68**	<0.05	<0.0002	<0.001	<0.02
	9/20/2010	6010B	<0.02	0.27	<0.002	**0.067**	<0.006	0.31	NL	**0.84**	<0.05	<0.0002	<0.05	<0.02
	3/18/2010	6010B	<0.02	0.2	<0.002	**2.4**	<0.006	**5.3**	<0.005	**3.1**	<0.05	<0.0008	<0.001	<0.05
Oil Sump LDU [1]	6/12/2013	200.7/200.8	**0.018**	0.43	<0.002	**0.12**	<0.006	0.42	<0.005	**1.1**	0.015	<0.0002	<0.005	0.022
	3/18/2013	200.7/200.8	**0.018**	0.33	<0.002	**0.11**	<0.006	0.61	<0.005	**1.1**	4.9E-03	<0.0002	<0.0025	0.03
	11/28/2012	200.7/200.8	**0.011**	0.34	<0.002	**0.085**	<0.006	0.8	<0.005	**1.1**	4.6E-03	<0.0002	<0.0025	0.041
	8/21/2012	200.7/200.8	**0.011**	0.45	<0.002	**0.069**	<0.006	0.86	<0.005	**1.1**	<0.05	<0.0002	<0.0025	0.055
	6/12/2012	200.7/200.8	**0.017**	0.56	<0.002	**0.052**	0.018	**5.8**	8.6E-03	**0.84**	9.7E-03	**3.1E-03**	<0.005	0.43
	3/20/2012	200.7/200.8	**0.02**	0.52	<0.002	0.048	9.3E-03	**4.5**	6.5E-03	**0.82**	0.012	1.7E-03	<0.0025	0.22
	12/14/2011	200.7/200.8	**0.012**	0.24	0.002	0.034	<0.006	0.59	<0.005	**0.37**	0.004	<0.0002	<0.0025	0.018
	9/26/2011	200.7/200.8	**0.031**	**1.8**	2.20E-03	**0.16**	0.62	**120**	**0.2**	**0.93**	7.2E-03	**7.7E-03**	2.6E-03	**11**
	6/15/2011	200.7/200.8	6.5E-03	0.5	<0.01	0.039	<0.03	0.38	<0.025	**0.35**	0.004	<0.0002	<0.0025	<0.05
	3/3/2011	200.7/200.8	9.8E-03	0.62	<0.002	**0.072**	<0.006	**9.4**	5.6E-03	**0.81**	<0.05	**2.4E-03**	<0.0025	0.47
	11/10/2010	6010B	<0.1	**7.2**	<0.01	**0.18**	0.25	**150**	**0.11**	**2.3**	<0.25	**0.017**	<0.004	7.9
	9/20/2010	6010B	<0.1	**15**	<0.01	**0.23**	0.59	**130**	**0.24**	**1.6**	<0.25	**0.011**	0.016	**13**
	3/18/2010	6010B	<2.0	<2.0	<0.2	**1.1**	**4.5**	NL	**1.7**	**3.3**	<5.0	<0.004	**4.61E-02**	**88**

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) Oil Sump LDU - Dry - 2013 Third and fourth Quarters. 2014 and 2015 - dry.

8.10.1 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)

Total Metals Analytical Result Summary

STANDARDS	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103	0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL	**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	0.002	0.03	NE
NMED TAP WATER (JUL 2015)	0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)	5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	6.3E-04	0.06	6
SAMPLE ID / DATE SAMPLED / METHOD												

2) West LDU - 2014 - fourth quarter - not enough water to collect samples (West bay out of service). 2015 - Second Quarter - not enough water to collect samples.

3) East LDU - No samples collected third quarter 2014.

8.10.2 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)

Dissolved Metals Analytical Result Summary

STANDARDS			PARAMETERS											
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.03	NE
NMED TAP WATER (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.094	0.06	6
SAMPLE ID	**DATE SAMPLED**	**METHOD**												
East LDU [3]	11/17/2016	200.7/200.8	2.5E-03	0.085	<0.002	**0.44**	<0.006	**47**	<0.0005	**16**	2.2E-03	<0.005	1.0E-04	0.018
	6/7/2016	200.7/200.8	3.8E-03	0.15	<0.002	**0.44**	<0.006	0.36	<0.0025	**3.8**	2.0E-03	<0.005	4.9E-03	0.011
	3/1/2016	200.7/200.8	4.8E-03	0.12	<0.002	**0.41**	<0.006	0.099	<0.0025	**7.5**	3.6E-03	<0.005	4.4E-04	0.017
	10/29/2015	200.7/200.8	5.2E-03	0.21	<0.002	**0.74**	<0.006	0.051	<0.005	**3.3**	2.9E-03	<0.005	<0.005	<0.01
	8/11/2015	200.7/200.8	<0.05	0.29	<0.002	**0.88**	<0.006	0.026	<0.05	**2.8**	<0.05	<0.005	<0.05	<0.01
	6/3/2015	200.7/200.8	<0.01	0.28	<0.002	**0.86**	<0.006	0.086	<0.05	**2.6**	0.044	<0.005	<0.01	<0.01
	3/10/2015	200.7/200.8	4.7E-03	0.14	<0.002	**0.8**	<0.006	0.5	<0.001	**6.4**	2.4E-03	<0.005	1.3E-03	0.028
	11/11/2014	200.7/200.8	1.3E-03	0.074	<0.002	**0.18**	<0.006	**1.4**	<0.001	**4.9**	<0.001	<0.005	<0.001	<0.01
	6/3/2014	200.7/200.8	**0.021**	0.32	<0.002	**0.52**	<0.006	0.025	<0.005	**1.5**	**0.056**	<0.005	<0.005	0.021
	3/10/2014	200.7/200.8	<0.01	0.19	<0.002	**0.71**	<0.006	**2.9**	<0.01	**3.0**	**0.051**	<0.005	<0.01	0.11
	11/12/2013	200.7/200.8	9.7E-03	0.34	<0.002	**0.44**	<0.006	0.08	<0.005	**0.25**	7.8E-03	<0.005	<0.005	0.019
	6/12/2013	200.7/200.8	6.3E-03	0.56	<0.002	**0.69**	<0.006	0.049	<0.005	**0.56**	0.02	<0.005	<0.005	<0.01
	3/18/2013	200.7/200.8	6.3E-03	0.45	<0.002	**0.77**	<0.006	0.047	5.2E-03	**0.62**	5.6E-03	<0.005	<0.001	<0.01
	11/28/2012	200.7/200.8	0.01	0.51	<0.002	**0.69**	<0.006	0.055	<0.005	**1.0**	0.015	<0.005	<0.02	0.025
	8/21/2012	200.7/200.8	6.2E-03	0.62	<0.002	**0.46**	<0.006	0.044	<0.005	**1.2**	<0.05	<0.005	<0.001	<0.01
	6/12/2012	200.7/200.8	5.1E-03	0.59	<0.002	**0.28**	<0.006	0.062	<0.005	**1.1**	9.2E-03	<0.005	<0.005	0.011
	3/20/2012	200.7/200.8	<0.005	0.42	<0.002	**0.11**	<0.006	0.9	<0.005	**0.6**	<0.005	<0.005	<0.005	0.035
	12/14/2011	200.7/200.8	3.5E-03	0.31	<0.002	**0.12**	<0.006	0.21	<0.005	**0.39**	1.8E-03	<0.005	<0.001	<0.01
	9/26/2011	200.7/200.8	3.6E-03	0.58	<0.002	**0.11**	<0.006	0.057	<0.005	**0.55**	1.9E-03	<0.005	<0.001	0.026
	6/15/2011	200.7/200.8	**0.016**	0.11	<0.01	**0.11**	<0.03	**1.2**	<0.025	**1.2**	0.037	<0.025	<0.01	<0.05
	3/3/2011	200.7/200.8	<0.005	0.48	<0.002	0.034	<0.006	0.11	<0.005	**0.38**	<0.05	<0.005	<0.005	<0.01
	11/11/2010	6010B	<0.02	0.33	<0.002	0.046	<0.006	0.16	<0.005	**0.59**	<0.05	<0.005	<0.001	<0.05
	9/20/2010	6010B	<0.02	0.31	<0.002	0.033	<0.006	0.14	<0.005	**0.73**	<0.05	<0.005	<0.005	<0.05
	3/18/2010	6010B	<0.04	0.21	<0.004	**0.22**	<0.012	0.86	<0.01	**2.0**	<0.1	<0.01	<0.001	<0.1
West LDU [2]	11/17/2016	200.7/200.8	4.0E-03	0.24	<0.002	**0.67**	<0.006	0.17	<0.0005	**0.51**	4.5E-03	<0.005	6.6E-04	4.5E-03
	6/7/2016	200.7/200.8	5.1E-03	0.43	<0.002	1.3E-03	<0.006	0.2	4.3E-04	**0.54**	3.0E-03	<0.005	3.4E-04	0.01
	3/1/2016	200.7/200.8	6.6E-03	0.29	<0.002	**1.4**	<0.006	0.13	<0.005	**0.99**	7.3E-03	<0.005	8.2E-04	7.3E-03
	10/29/2015	200.7/200.8	5.6E-03	0.6	<0.002	**1.2**	<0.006	0.086	<0.005	**0.79**	8.2E-03	<0.005	<0.01	<0.01
	8/11/2015	200.7/200.8	<0.05	0.41	<0.002	**1.2**	<0.006	0.21	<0.025	**0.55**	<0.05	<0.005	<0.025	<0.01
	3/10/2015	200.7/200.8	3.3E-03	0.27	<0.002	**0.66**	<0.006	0.42	<0.005	**1.3**	5.2E-03	<0.005	<0.005	0.033
	9/11/2014	200.7/200.8	<0.005	0.49	<0.002	**0.27**	<0.006	**1.3**	<0.01	**0.6**	<0.005	<0.005	<0.01	0.26
	6/3/2014	200.7/200.8	<0.002	0.082	<0.002	0.043	<0.006	0.92	<0.001	**1.9**	2.7E-03	<0.005	0.0011	0.022
	3/10/2014	200.7/200.8	<0.001	0.061	<0.002	**0.11**	<0.006	**2.6**	<0.001	**3.6**	2.3E-03	<0.005	<0.001	0.088
	11/12/2013	200.7/200.8	0.01	0.17	<0.002	**0.14**	<0.006	0.093	<0.005	**1.3**	0.044	<0.005	<0.005	0.023
	9/5/2013	200.7/200.8	8.6E-03	0.23	<0.002	**0.28**	<0.006	**29**	<0.005	**2.0**	0.015	<0.025	<0.005	0.35
	6/12/2013	200.7/200.8	<0.01	0.22	<0.002	0.036	<0.006	0.19	<0.01	**0.29**	**0.11**	<0.005	<0.01	<0.01
	3/18/2013	200.7/200.8	<0.005	0.13	<0.002	0.04	<0.006	0.07	<0.005	**0.3**	0.013	<0.005	<0.005	<0.01
	11/28/2012	200.7/200.8	<0.005	0.16	<0.002	**0.071**	<0.006	0.38	<0.005	**0.55**	0.013	<0.005	<0.05	0.04
	8/21/2012	200.7/200.8	0.002	0.38	<0.002	0.032	<0.006	0.15	<0.005	**0.21**	<0.05	<0.005	<0.001	0.014
	6/12/2012	200.7/200.8	<0.005	0.35	<0.002	0.019	<0.006	0.09	<0.005	0.2	7.5E-03	<0.005	<0.005	<0.01
	3/20/2012	200.7/200.8	1.8E-03	0.21	<0.002	0.013	<0.006	0.61	<0.005	**0.22**	3.8E-03	<0.005	<0.001	0.02
	12/14/2011	200.7/200.8	7.1E-03	0.3	<0.002	**0.066**	<0.006	**1.3**	<0.005	**0.31**	<0.005	<0.005	<0.005	0.04
	9/26/2011	200.7/200.8	4.4E-03	0.21	NL	**0.067**	<0.006	0.14	<0.005	**0.86**	7.5E-03	<0.005	<0.001	0.013

8.10.2 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)

Dissolved Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.03	NE
NMED TAP WATER (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.094	0.06	6
SAMPLE ID	**DATE SAMPLED**	**METHOD**												
West LDU [2]	6/15/2011	200.7/200.8	**0.013**	0.61	<0.01	**0.091**	<0.03	0.33	<0.025	**1.1**	0.031	<0.025	<0.005	<0.05
	3/3/2011	200.7/200.8	<0.005	0.46	<0.002	**0.077**	<0.006	**2.1**	<0.005	**1.3**	<0.05	<0.005	<0.005	0.012
	11/11/2010	6010B	<0.02	0.56	<0.002	**0.18**	<0.006	0.22	<0.005	**0.81**	<0.05	<0.005	<0.001	<0.05
	9/20/2010	6010B	<0.02	0.25	<0.002	**0.062**	<0.006	0.12	<0.005	**0.81**	<0.05	<0.005	<0.005	<0.05
	3/18/2010	6010B	<01	0.16	<0.01	**2.3**	<0.03	**3.2**	<0.025	**2.9**	<0.25	<0.025	<0.001	<0.25
Oil Sump LDU [1]	6/12/2013	200.7/200.8	<0.02	0.43	<0.002	**0.11**	<0.006	0.13	<0.02	**1.2**	**0.074**	<0.005	<0.02	<0.01
	3/18/2013	200.7/200.8	**0.011**	0.29	<0.002	**0.1**	<0.006	0.15	<0.005	**1.1**	0.013	<0.005	<0.05	0.026
	11/28/2012	200.7/200.8	**0.014**	0.32	<0.002	**0.08**	<0.006	0.37	<0.005	**1.1**	0.013	<0.005	<0.02	0.06
	8/21/2012	200.7/200.8	**0.011**	0.4	<0.002	**0.061**	<0.006	0.19	<0.005	**1.1**	<0.05	<0.005	<0.001	0.015
	6/12/2012	200.7/200.8	9.5E-03	0.35	<0.002	0.046	<0.006	0.51	<0.005	**0.83**	0.012	<0.005	<0.005	0.016
	3/20/2012	200.7/200.8	0.007	0.23	<0.002	0.047	<0.006	0.33	<0.005	**0.79**	0.02	<0.005	<0.005	0.024
	12/14/2011	200.7/200.8	6.2E-03	0.23	<0.002	0.03	<0.006	0.28	<0.005	**0.35**	0.011	<0.005	<0.001	0.015
	9/26/2011	200.7/200.8	6.2E-03	0.24	<0.002	**0.058**	<0.006	0.1	<0.005	**0.53**	0.011	<0.005	<0.001	0.015
	6/15/2011	200.7/200.8	4.8E-03	0.46	<0.01	0.033	<0.03	<0.1	<0.025	**0.33**	4.1E-03	<0.025	<0.002	<0.05
	3/3/2011	200.7/200.8	<0.005	0.049	<0.002	**0.054**	<0.006	**2.4**	<0.005	**0.75**	**0.071**	<0.005	<0.005	0.01
	11/10/2010	6010B	<0.02	0.19	<0.002	0.037	<0.006	0.15	7.5E-03	**1.2**	<0.05	<0.005	<0.001	<0.05
	9/20/2010	6010B	<0.02	0.32	<0.002	0.03	<0.006	0.12	5.6E-03	**1.1**	<0.05	<0.005	<0.025	<0.05

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) Oil Sump LDU - Dry - 2013 Third and fourth Quarters. 2014 and 2015 - dry.

2) West LDU - 2014 - fourth quarter - not enough water to collect samples (West bay out of service). 2015 - Second Quarter - not enough water to collect samples.

3) East LDU - No samples collected third quarter 2014.

8.10.3 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)

Volatile Organic Compound Analytical Result Summary

STANDARDS			PARAMETERS									
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	Isopropyl benzene (mg/L)	4-Methyl-2-pentanone (mg/L)	n-Propyl benzene (mg/L)	2-Butanone (mg/L)	1-Methyl naphthalene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
40 CFR 141.62 MCL			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NMED TAP WATER (JUL 2015)			NE	NE	**0.00165**	NE	**14.1**	**0.447**	**1.24**	NE	**5.56**	NE
EPA RSL for Tap Water (MAY 2016)			**0.015**	**0.12**	1.7E-04	**0.036**	14	0.45	6.3	**0.66**	5.6	**0.0011**
SAMPLE ID	**DATE SAMPLED**	**METHOD**										
East LDU [3]	11/17/2016	8260-Short List	0.007	0.039	NA	NA	NA	NA	NA	NA	NA	NA
	6/7/2016	8260-Short List	**0.13**	**0.25**	NA	NA	NA	NA	NA	NA	NA	NA
	3/1/2016	8260-Short List	**0.18**	**0.31**	NA	NA	NA	NA	NA	NA	NA	NA
	10/29/2015	8260B	**0.31**	**0.22**	**0.17**	**0.069**	<0.1	0.026	NA	0.036	<0.1	**0.049**
	8/11/2015	8260B	**0.74**	**0.24**	**0.16**	**0.097**	<0.2	0.032	<0.2	0.045	0.46	<0.08
	6/3/2015	8260-Short List	**0.96**	**0.3**	NA	NA	NA	NA	NA	NA		
	3/10/2014	8021B	**5.8**	**1.9**	NA	NA	NA	NA	NA	NA		
	6/12/2013	8021B	**0.8**	**0.28**	NA	NA	NA	NA	NA	NA		
	3/18/2013	8021B	**0.9**	**0.29**	NA	NA	NA	NA	NA	NA		
	11/28/2012	8021B	NA	NA	NA	NA	NA	NA	NA	NA		
	8/21/2012	8021B	**0.84**	**0.28**	NA	NA	NA	NA	NA	NA		
	6/12/2012	8021B	**0.94**	**0.3**	NA	NA	NA	NA	NAN	NA		
	6/15/2011	8260B	**0.54**	**0.16**	**0.11**	**0.095**	<0.2	0.023	0.23	0.044		
	11/11/2010	8260B	NA	NA								
	9/20/2010	8021B	**0.81**	**0.26**								
West LDU [2]	11/17/2016	8260B	9.8E-03	3.4E-03	NA	NA	NA	NA	NA	NA		
	6/7/2016	8260-Short List	**0.062**	0.0082	NA	NA	NA	NA	NA	NA		
	3/1/2016	8260-Short List	6.8E-03	<0.02	NA	NA	NA	NA	NA	NA		
	10/29/2015	8260B	**0.048**	<0.01	**0.036**	**0.047**	0.18	<0.01	<0.1	<0.1		
	8/11/2015	8260B	**0.076**	<0.02	**0.056**	<0.08	<0.2	<0.02	<0.2	<0.02		
	3/10/2015	8021B	**0.091**	0.037	NA	NA	NA	NA	NA	NA		
	9/11/2014	8021B	**0.41**	**0.15**	NA	NA	NA	NA	NA	NA		
	6/3/2014	8021B	**0.76**	**0.25**	NA	NA	NA	NA	NA	NA		
	3/10/2014	8021B	**0.57**	**0.19**	NA	NA	NA	NA	NA	NA		
	9/5/2013	8021B	**1.8**	**0.62**	NA	NA	NA	NA	NA	NA		
	6/12/2013	8021B	**0.69**	**0.23**	NA	NA	NA	NA	NA	NA		
	3/18/2013	8021B	**0.61**	**0.21**	NA	NA	NA	NA	NA	NA		
	11/28/2012	8021B	NA	NA	NA	NA	NA	NA	NA	NA		
	8/21/2012	8021B	**0.55**	**0.24**	NA	NA	NA	NA	NA	NA		
	6/12/2012	821B	**0.81**	**0.26**	NA	NA	NA	NA	NA	NA		
	6/15/2011	8260B	**0.041**	0.015	<0.02	<0.04	<0.1	<0.01	<0.1	<0.01		
	11/11/2010	8260B	NA	NA								
	9/20/2010	8021B	**0.34**	0.1								
Oil Sump LDU [1]	6/12/2013	8021B	**0.8**	**0.25**	NA	NA	NA	NA	NA	NA		
	3/18/2013	8021B	**0.74**	**0.23**	NA	NA	NA	NA	NA	NA		
	11/28/2012	8021B	NA	NA	NA	NA	NA	NA	NA	NA		
	8/21/2012	8021B	**0.85**	**0.27**	NA	NA	NA	NA	NA	NA		
	6/12/2012	8021B	**0.9**	**0.28**	NA	NA	NA	NA	NA	NA		
	6/15/2011	8260B	**0.5**	<0.2	<0.4	<0.8	5.3	<0.2	<2.0	<0.2		
	11/11/2010	8260B	NA	NA								
	9/20/2010	8021B	**12**	**4.6**								

8.10.3 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)

Volatile Organic Compound Analytical Result Summary

STANDARDS			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	Isopropyl benzene (mg/L)	4-Methyl-2-pentanone (mg/L)	n-Propyl benzene (mg/L)	2-Butanone (mg/L)	1-Methyl naphthalene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
40 CFR 141.62 MCL			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NMED TAP WATER (JUL 2015)			NE	NE	**0.00165**	NE	**14.1**	**0.447**	**1.24**	NE	**5.56**	NE
EPA RSL for Tap Water (MAY 2016)			**0.015**	**0.12**	1.7E-04	**0.036**	14	0.45	6.3	**0.66**	5.6	**0.0011**
SAMPLE ID	DATE SAMPLED	METHOD										

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) Oil Sump LDU - Dry - 2013 Third and fourth Quarters. 2014 and 2015 - dry.

2) West LDU - 2014 - fourth quarter - not enough water to collect samples (West bay out of service). 2015 - Second Quarter - not enough water to collect samples.

3) East LDU - No samples collected third quarter 2014.

8.11 RW-1, RW-2, RW-5, RW-6

BTEX Analytical Result Summary

STANDARDS			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED TAP WATER (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
SAMPLE ID	**DATE SAMPLED**	**METHOD**					
RW-1 [1]	2015		Not Sampled - has an SPH level				
	9/18/2014	8260B	**37**	**35**	**1.8**	**10**	**1.2**
	9/16/2013	8260B	**54**	**35**	**2.4**	**13**	**2.2**
	8/23/2012	8260B	**45**	**82**	**4.9**	**31**	**3.1**
	10/3/2011	8260B	**51**	**37**	**3.7**	**23**	**2.9**
RW-2 [1]	11/16/2016	8260B	**38**	**3.4**	**1.2**	**3.2**	**1.7**
	9/13/2016	8260B	**38**	**3.8**	**1.2**	**3.1**	**1.6**
	6/8/2016	8260B	**36**	**2.9**	**1.1**	**3.1**	**1.7**
	3/7/2016	8260B	**46**	**4.1**	**1.2**	**3.5**	**1.9**
	8/23/2015	8260B	**42**	**6.9**	**1.1**	**3.7**	**1.8**
	9/18/2014	8260B	**40**	**4.5**	**0.86**	**2.5**	**1.9**
	9/16/2013	8260B	**48**	**3.4**	**0.87**	**2.3**	**2.8**
	8/24/2012	8260B	**42**	**2.6**	0.59	**1.7**	**3.3**
	10/3/2011	8260B	**39**	**5.3**	0.57	**1.5**	**3.7**
RW-5 [1]	11/16/2016	8260B	**0.72**	3.5E-03	0.34	0.13	1.2E-03
	9/13/2016	8260B	**0.57**	3.5E-03	0.26	0.12	<0.005
	6/7/2016	8260B	**0.54**	3.8E-03	0.15	0.11	4.2E-03
	3/7/2016	8260B	**0.39**	2.4E-03	0.15	0.086	2.6E-03
	10/29/2015	8260B	**0.5**	<0.01	0.13	0.095	<0.01
	8/23/2015	8260B	**0.43**	<0.005	0.037	0.07	<0.005
	9/18/2014	8260B	**0.35**	<0.01	0.11	0.056	<0.01
	9/16/2013	8260B	**0.37**	<0.01	0.11	0.089	<0.01
	8/23/2012	8260B	**0.19**	<0.01	0.26	0.091	0.032
	10/4/2011	8260B	**0.56**	<0.01	0.21	0.26	0.095
RW-6 [1]	11/16/2016	8260B	**0.27**	0.12	0.29	**0.78**	0.014
	9/13/2016	8260B	**0.28**	0.11	0.29	**0.81**	0.017
	3/7/2016	8260B	**0.39**	0.19	0.51	0.086	0.021
	10/29/2015	8260B	**0.34**	0.11	0.28	**0.85**	0.043
	8/23/2015	8260B	**0.36**	0.071	0.093	**0.67**	0.05
	9/18/2014	8260B	**0.47**	0.23	0.45	**1.3**	0.046
	9/16/2013	8260B	**0.68**	<0.05	0.18	**1.1**	<0.05
	8/23/2012	8260B	**0.74**	0.052	0.4	**1.6**	0.073
	10/4/2011	8260B	**0.87**	0.029	0.33	<0.0015	<0.01

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES:

1) Recovery wells added to the approved 2010 FWGWMP (8/25/10) annual sampling schedule.

8.11.1 RW-1, RW-2, RW-3, RW-5

General Chemistry Analytical Result Summary

STANDARDS			Parameters								
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			1.6	250.0	NE	10	NE	600.0	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	10.0	10	NE	NE	10	NE	NE
NMED TAP WATER (JUL 2015)			1.18	NE	1.97	31.6	NE	NE	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			0.8	NE	2	32	4.0E-04	NE	NE	NE	NE
SAMPLE ID	DATE SAMPLED	METHOD									
RW-1 [1]	9/16/2013	300.0	<0.5	370	<0.5	<0.5	<2.5	<2.5			
	8/23/2012	300.0	<0.5	380	<1.0	<1.0	<2.5	<2.5			
	10/3/2011	300.0	<0.5	410	220	220	<2.5	<2.5			
RW-2 [1]	11/16/2016	8015D	NA	NA	NA	NA	NA	NA	8.4	130	<5.0
	9/13/2016	8015D	NA	NA	NA	NA	NA	NA	14	140	<5.0
	6/8/2016	8015D	NA	NA	NA	NA	NA	NA	14	140	<5.0
	3/7/2016	8015D	NA	NA	NA	NA	NA	NA	7.2	160	<5.0
	10/29/2015	8015D	NA	NA	NA	NA	NA	NA	9.7	130	<5.0
	8/23/2015	8015D	NA	NA	NA	NA	NA	NA	7.4	82	<5.0
	9/16/2013	300.0	0.27	84	<0.1	<0.1	<0.5	1.7			
	8/24/2012	300.0	<0.5	90	<1.0	<1.0	<2.5	<2.5			
	10/3/2011	300.0	<0.5	130	67	67	<2.5	<2.5			
RW-5 [1]	11/16/2016	8015D	NA	NA	NA	NA	NA	NA	4.9	7.6	<5.0
	9/13/2016	8015D							5.4	6.4	<5.0
	6/7/2016	8015D	NA	NA	NA	NA	NA	NA	6.3	4.9	<5.0
	3/7/2016	8015D	NA	NA	NA	NA	NA	NA	3.4	5.5	<5.0
	10/29/2015	8015D	NA	NA	NA	NA	NA	NA	12	3.6	<5.0
	8/23/2015	8015D	NA	NA	NA	NA	NA	NA	4.1	2.2	<5.0
	9/16/2013	300.0	0.89	5.6	<0.1	<0.1	<0.5	<0.5			
	8/23/2012	300.0	0.8	11	<1.0	<1.0	<2.5	<2.5			
	10/4/2011	300.0	0.54	26	14	14	<2.5	<2.5			
RW-6 [1]	11/16/2016	8015D	NA	NA	NA	NA	NA	NA	240	7.1	<50
	9/13/2016	8015D	NA	NA	NA	NA	NA	NA	1200	11	<500
	6/7/2016	8015D	NA	NA	NA	NA	NA	NA	35	7	<5.0
	3/7/2016	8015D	NA	NA	NA	NA	NA	NA	6.1	12	<50
	10/29/2015	8015D	NA	NA	NA	NA	NA	NA	340	6.2	<50
	8/23/2015	8015D	NA	NA	NA	NA	NA	NA	1400	4.9	<500
	9/16/2013	300.0	<0.5	45	<0.5	<0.5	<2.5	<2.5			
	8/23/2012	300.0	<0.5	45	<1.0	<1.0	<2.5	<2.5			

8.11.1 RW-1, RW-2, RW-3, RW-5

General Chemistry Analytical Result Summary

STANDARDS			Parameters								
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	NE	**10**	NE	**600.0**	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	**10.0**	10	NE	NE	10	NE	NE
NMED TAP WATER (JUL 2015)			1.18	NE	1.97	31.6	NE	NE	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			0.8	NE	2	32	**4.0E-04**	NE	NE	NE	NE
SAMPLE ID	DATE SAMPLED	METHOD									
	10/4/2011	300.0	<0.5	80	<1.0	<1.0	<2.5	<2.5			

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) Recovery wells added to the approved 2010 FWGWMP (8/25/10) annual sampling schedule.

8.11.2 RW-1, RW-2, RW-5, RW-6

Total Metals Analytical Result Summary

STANDARDS			Parameters											
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.002	0.03	NE
NMED TAP WATER (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.4	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.094	6.3E-04	0.06	6
SAMPLE ID	DATE SAMPLED	METHOD													
RW-1 [1]	9/18/2014	200.7/200.8	<0.01	**3.5**	<0.002	7.5E-03	0.014	**9.6**	<0.001	**3.2**	<0.01	<0.005	<0.0002	1.4E-03	<0.01
	9/16/2013	200.7/200.8	9.6E-03	**4.9**	<0.002	7.5E-03	0.014	**19**	5.3E-03	**3.3**	0.01	<0.25	<0.0002	1.9E-03	0.044
	8/23/2012	200.7/200.8	0.01	**3.7**	<0.002	<0.006	<0.006	**6.9**	<0.005	**3.6**	5.7E-03	<0.005	<0.0002	4.1E-03	<0.01
	10/3/2011	200.7/200.8	0.01	**4.8**	<0.002	<0.006	0.035	**4.6**	<0.005	**3.3**	7.5E-03	<0.005	<0.0002	4.3E-03	0.06
RW-2 [1]	9/18/2014	200.7/200.8	8.6E-03	**4.1**	<0.002	<0.006	<0.006	**15**	4.3E-03	**2.6**	5.7E-03	<0.005	<0.0002	<0.001	0.016
	9/16/2013	200.7/200.8	6.4E-03	**3.9**	<0.002	<0.006	<0.006	**13**	2.1E-03	**2.3**	7.4E-03	<0.1	<0.0002	<0.001	0.026
	8/24/2012	200.7/200.8	6.9E-03	**3.7**	<0.002	<0.006	<0.006	**10**	<0.005	**2.1**	4.4E-03	<0.005	<0.0002	<0.0025	<0.01
	10/3/2011	200.7/200.8	6.1E-03	**3.1**	<0.002	<0.006	9.8E-03	**11**	<0.005	**2.2**	6.9E-03	<0.005	<0.0002	<0.0025	0.028
RW-5 [1]	9/18/2014	200.7/200.8	1.9E-03	**2.0**	<0.002	<0.006	<0.006	**2.8**	<0.001	**0.5**	<0.001	<0.005	<0.0002	<0.001	<0.01
	9/16/2013	200.7/200.8	2.2E-03	**2.3**	<0.002	<0.006	<0.006	**4.0**	<0.001	**0.59**	<0.001	<0.005	<0.0002	<0.001	<0.01
	8/23/2012	200.7/200.8	3.3E-03	**3.1**	<0.002	<0.006	<0.006	**5.0**	<0.005	**0.76**	<0.0025	<0.005	<0.0002	<0.0025	<0.01
	10/4/2011	200.7/200.8	6.3E-03	**3.7**	<0.002	<0.006	<0.006	**7.8**	<0.005	**0.97**	<0.0025	<0.005	<0.0002	<0.0025	0.013
RW-6 [1]	9/18/2014	200.7/200.8	**0.014**	**3.3**	<0.002	<0.006	<0.006	**6.8**	6.7E-03	**0.79**	1.5E-03	<0.005	<0.0002	<0.001	<0.01
	9/16/2013	200.7/200.8	**0.013**	**3.6**	<0.002	<0.006	<0.006	**11**	6.9E-03	**0.9**	1.5E-03	<0.005	<0.0002	<0.001	<0.01
	8/23/2012	200.7/200.8	**0.015**	**3.7**	<0.002	<0.006	<0.006	**7.4**	9.3E-03	**0.89**	<0.0025	<0.005	<0.0002	<0.0025	<0.01
	10/4/2011	200.7/200.8	**0.017**	**4.2**	<0.002	<0.006	<0.006	**11**	9.3E-03	**1.1**	<0.0025	<0.005	<0.0002	<0.0025	<0.01

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) Recovery wells added to the approved 2010 FWGWMP (8/25/10) annual sampling schedule.

Metals(Total and Dissolved) no longer required per NMED Comment 7(f), Approval with Modifications...dated July 24, 2015.

8.11.3 RW-1, RW-2, RW-5, RW-6

Dissolved Metals Analytical Result Summary

STANDARDS			Parameters										
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.03	NE
NMED TAP WATER (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.094	0.06	6
SAMPLE ID	DATE SAMPLED	METHOD												
RW-1 [1]	9/18/2014	200.7/200.8	<0.01	**3.6**	<0.002	<0.006	<0.006	**9.6**	<0.001	**3.3**	<0.01	<0.005	1.4E-03	0.067
	9/16/2013	200.7/200.8	8.2E-03	**5.3**	<0.002	<0.006	<0.006	**11**	<0.001	**3.5**	0.012	<0.05	<0.001	0.017
	8/23/2012	200.7/200.8	0.009	**3.6**	<0.002	<0.006	<0.006	**7.6**	<0.005	**3.6**	6.2E-03	<0.005	4.1E-03	0.021
	10/3/2011	200.7/200.8	7.1E-03	**5.0**	<0.002	<0.006	<0.006	**5.2**	<0.005	**3.3**	0.013	<0.005	2.8E-03	0.067
RW-2 [1]	9/18/2014	200.7/200.8	<0.01	**3.8**	<0.002	<0.006	<0.006	**13**	<0.001	**2.4**	<0.01	<0.005	<0.001	0.023
	9/16/2013	200.7/200.8	5.7E-03	**3.9**	<0.002	<0.006	<0.006	**11**	<0.001	**2.2**	7.6E-03	<0.1	<0.001	<0.01
	8/24/2012	200.7/200.8	7.3E-03	**3.5**	<0.002	<0.006	<0.006	**10**	<0.005	**2.1**	4.6E-03	<0.005	<0.001	0.023
	10/3/2011	200.7/200.8	0.006	**2.8**	<0.002	<0.006	<0.006	**6.1**	<0.005	**2.0**	0.01	<0.005	<0.001	<0.01
RW-5 [1]	9/18/2014	200.7/200.8	0.002	**1.9**	<0.002	<0.006	<0.006	**2.6**	<0.001	**0.5**	<0.001	<0.005	<0.001	0.049
	9/16/2013	200.7/200.8	0.002	**2.5**	<0.002	<0.006	<0.006	**3.3**	<0.001	**0.61**	<0.001	<0.005	<0.001	<0.01
	8/23/2012	200.7/200.8	2.2E-03	**2.7**	<0.002	<0.006	<0.006	**3.7**	<0.005	**0.7**	0.001	<0.005	<0.001	0.017
	10/4/2011	200.7/200.8	4.8E-03	**3.1**	<0.002	<0.006	<0.006	**5.4**	<0.005	**0.89**	3.5E-03	<0.005	<0.001	<0.01
RW-6 [1]	9/18/2014	200.7/200.8	1.4E-02	**3.2**	<0.002	<0.006	<0.006	**6.5**	4.9E-03	**0.75**	<0.005	<0.005	<0.001	0.024
	9/16/2013	200.7/200.8	9.6E-03	**3.6**	<0.002	<0.006	<0.006	**7.1**	3.4E-03	**0.87**	2.5E-03	<0.005	<0.001	0.032
	8/23/2012	200.7/200.8	**0.015**	**3.7**	<0.002	<0.006	<0.006	**8.3**	9.1E-03	**0.92**	1.6E-03	<0.005	<0.001	0.021
	10/4/2011	200.7/200.8	**0.016**	**4.1**	<0.002	<0.006	<0.006	**10**	0.007	**1.1**	4.4E-03	<0.005	<0.001	<0.01

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) Recovery wells added to the approved 2010 FWGWMP (8/25/10) annual sampling schedule.

Metals(Total and Dissolved) no longer required per NMED Comment 7(f), Approval with Modifications...dated July 24, 2015.

8.11.4 RW-1, RW-2, RW-5, RW-6

Volatile Organic Compound Analytical Result Summary

STANDARDS			Parameters													
			1,2,4-Trimethyl-benzene (mg/L)	1,3,5-Trimethyl-benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	2-Butanone (mg/L)	Chloro methane (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	Sec-butyl benzene (mg/L)	Styrene (mg/L)	tert-Butylbenz ene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
40 CFR 141.62 MCL			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	**0.1**	NE
NMED TAP WATER (JUL 2015)			NE	NE	**0.00165**	NE	NE			**0.0203**	**0.447**	NE	NE	NE	NE	1.21	NE
EPA RSL for Tap Water (MAY 2016)			**0.015**	**0.12**	1.7E-04	**1.1E-03**	**0.036**	12	NE	0.19	0.45	NE	**1**	**0.66**	2	1.2	**0.69**
SAMPLE ID	**DATE SAMPLED**	**METHOD**															
RW-1 [2]	9/18/2014	8260B	<1.0	<1.0	<2.0	<4.0	<4.0			<3.0	<1.0	<1.0		<1.0		<1.0	
	9/16/2013	8260B	**1.3**	<1.0	<2.0	<4.0	<4.0			<3.0	<1.0	<1.0		<1.0		<1.0	
	8/23/2012	8260B	**2.8**	<1.0	<2.0	<4.0	<4.0			<0.03	<0.01	<0.01		<0.01		<0.01	
	10/3/2011	8260B	**5.8**	**0.98**	**0.6**	**0.071**	**0.15**			<0.03	<0.01	<0.01		0.4		0.013	
RW-2 [2]	11/16/2016	8260B	**0.2**	0.049	**0.15**	**0.13**	<0.8	<2.0	<2.0	<0.6	<0.2	<0.2		0.063		<0.2	
	9/13/2016	8260B	**0.21**	0.044	**0.14**	**0.088**	<0.8	<2.0	<2.0	<0.6	0.03	<0.2		0.056		<0.2	
	6/8/2016	8260B	**0.23**	0.12	**0.18**	**0.17**	<2.0			<1.5	<0.5	<0.07		0.071		<0.5	
	3/7/2016	8260B	**0.18**	0.028	**0.1**	**0.069**	0.028			<0.15	0.011	<0.05		0.045		<0.05	
	10/29/2015	8260B	**0.18**	0.031	**0.14**	**0.075**	<0.04			<0.03	0.02	<0.01		0.046		<0.01	
	8/23/2015	8260B	**0.21**	<0.2	<0.4	<0.8	<0.8			<0.6	<0.2	<0.2		<0.6		<0.2	
	9/18/2014	8260B	**0.15**	<0.1	<0.2	<0.4	<0.4			<0.3	<0.1	<0.1		<0.1		<0.1	
	9/16/2013	8260B	**0.13**	<0.1	<0.2	<0.4	<0.4			<0.3	<0.1	<0.1		<0.1		<0.1	
	8/24/2012	8260B	<0.1	<0.1	<0.2	<0.4	<0.4			<0.3	<0.1	<0.1		<0.1		<0.1	
	10/3/2011	8260B	**0.098**	0.024	**0.057**	**0.054**	<0.04			**0.14**	<0.01	<0.01		0.036		<0.01	
RW-5 [2]	11/16/2016	8260B	**0.062**	0.014	**0.14**	**0.12**	**0.12**	<0.05	<0.05	<0.015	0.02	5.6E-03	0.012	0.043	7.1E-03	<0.01	6.7E-03
	9/13/2016	8260B	**0.049**	0.013	**0.13**	**0.097**	**0.12**	<0.05	5.3E-03	<0.015	0.016	5.5E-03	0.012	0.037	7.5E-03	<0.005	
	6/7/2016	8260B	**0.046**	0.017	**0.13**	**0.13**	**0.15**	<0.1	<0.1	<0.03	0.01	7.1E-03	0.016	0.026	7.9E-03	<0.01	
	3/7/2016	8260B	**0.041**	0.013	**0.12**	**0.11**	**0.12**			<0.015	0.012	4.8E-03	0.014	0.032	0.01	<0.005	
	10/29/2015	8260B	**0.048**	0.015	**0.17**	**0.11**	**0.13**			<0.03	<0.01	<0.01		0.027	<0.01	<0.01	
	8/23/2015	8260B	**0.041**	0.012	**0.085**	**0.067**	**0.083**			<0.015	<0.005	<0.005		<0.005	<0.005	<0.005	
	9/16/2013	8260B	**0.045**	0.011	**0.1**	**0.084**	**0.11**			<0.03	0.012	<0.01		0.039	0.01	<0.01	
	9/16/2013	8260B	**0.09**	0.022	**0.12**	**0.097**	**0.13**			<0.03	<0.01	<0.01		0.031	<0.01	<0.01	
	8/23/2012	8260B	**0.054**	0.016	**0.11**	**0.11**	**0.17**			<0.03	0.018	<0.01		0.068	0.013	<0.01	
	10/4/2011	8260B	**0.13**	0.046	**0.17**	**0.11**	**0.16**			<0.03	0.017	0.01		0.04		<0.01	
RW-6 [2]	11/16/2016	8260B	**0.06**	0.1	**0.61**	**0.33**	**0.35**	<0.1	<0.1	<0.03	0.024	0.011	0.015	0.048	0.0088	<0.01	0.0014
	9/13/2016	8260B	**0.064**	0.12	**0.55**	**0.28**	**0.37**	<0.1	0.0093	<0.03	0.028	0.014	0.02	0.055	0.011	<0.01	
	6/7/2016	8260B	**0.074**	0.12	**0.54**	**0.31**	**0.38**	<0.1	<0.1	<0.03	0.025	0.012	0.029	0.054	0.01	<0.01	
	3/7/2016	8260B	**0.075**	**0.13**	**0.59**	**0.28**	**0.33**	0.035	0.014	<0.03	0.012	4.8E-03	0.014	0.032	0.01	<0.005	
	10/29/2015	8260B	**0.09**	0.1	**0.68**	**0.32**	**0.41**			<0.03	0.025	0.01		0.044	<0.01	<0.01	
	8/23/2015	8260B	**0.095**	0.11	**0.41**	**0.22**	**0.29**			<0.03	<0.01	0.01		0.012	<0.01	<0.01	
	9/18/2014	8260B	**0.17**	**0.17**	**0.57**	**0.19**	**0.28**			<0.03	0.045	0.011		0.11	0.011	<0.01	
	9/16/2013	8260B	**0.28**	**0.14**	**0.48**	**0.2**	**0.27**			<0.15	<0.05	<0.05		<0.05	<0.05	<0.05	
	8/23/2012	8260B	**0.38**	**0.17**	**0.58**	**0.22**	**0.36**			<0.15	<0.05	<0.05		0.074	<0.05	<0.05	
	10/4/2011	8260B	**0.42**	**0.16**	**0.52**	**0.21**	**0.31**			<0.03	0.043	0.015		0.078		<0.01	

DEFINITIONS

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STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

2) Recovery wells added to the approved 2010 FWGWMP (8/25/10) annual sampling schedule.

8.11.5 RW-1, RW-2, RW-5, RW-6

Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS			Parameters										
			Aniline (mg/L)	Benzoic Acid (mg/L)	Benzyl Alcohol (mg/L)	2,4-Dimethyl phenol (mg/L)	2-Methyl naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyridine (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	**0.005**	NE
40 CFR 141.62 MCL			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NMED TAP WATER (JUL 2015)			NE	NE	NE	**0.354**	NE	NE	NE	NE	**0.00165**	**0.17**	5.76	NE
EPA RSL for Tap Water (MAY 2016)			**0.013**	**75**	**2**	0.36	**0.0036**	**1.1E-03**	**0.93**	**0.93**	1.7E-04	NE	5.8	**0.02**
SAMPLE ID	**DATE SAMPLED**	**METHOD**												
RW-1 [2]	9/18/2014	8270C	**0.021**	<0.02	<0.01	0.037	**0.061**	**0.071**	0.05	0.062	**0.13**	<0.01	**0.044**	<0.01
	9/16/2013	8270C	**0.089**	<0.04	<0.01	0.087	**0.21**	**0.19**	0.14	0.15	**0.43**	0.011	**0.1**	<0.01
	8/23/2012	8270C	**0.16**	<0.2	<0.1	0.21	**0.61**	**0.3**	0.24	0.16	**0.89**	0.02	**0.11**	**0.031**
	10/3/2011	8270C	<0.1	<0.2	<0.1	<0.1	**1.1**	**0.5**	<0.1	<0.1	**1.3**	<0.1	<0.1	
RW-2 [2]	9/18/2014	8270C	**0.14**	<0.02	<0.01	0.084	<0.01	**0.068**	0.032	0.22	**0.065**	<0.01	**0.061**	
	9/16/2013	8270C	**0.22**	<0.04	<0.01	0.15	<0.01	**0.061**	0.048	0.22	**0.065**	<0.01	**0.095**	
	8/24/2012	8270C	**0.21**	<0.02	<0.01	0.22	<0.01	**0.043**	0.028	0.025	**0.043**	<0.01	**0.091**	
	10/3/2011	8270C	**0.15**	0.021	<0.01	0.16	<0.01	**0.023**	0.09	0.032	**0.026**	<0.01	**0.038**	
RW-5 [2]	9/18/2014	8270C	<0.01	<0.02	<0.01	<0.01	**0.044**	**0.039**	<0.02	<0.01	**0.039**	<0.01	<0.01	
	9/16/2013	8270C	<0.01	<0.04	<0.01	<0.01	**0.062**	**0.056**	<0.01	<0.01	**0.066**	<0.01	**0.018**	
	8/23/2012	8270C	<0.01	<0.02	<0.01	<0.01	**0.11**	**0.088**	<0.01	<0.01	**0.079**	<0.01	<0.01	
	10/4/2011	8270C	<0.01	<0.02	<0.01	<0.01	**0.13**	**0.1**	<0.01	<0.01	**0.11**	<0.01	<0.01	
RW-6 [2]	9/18/2014	8270C	<0.01	<0.02	<0.01	<0.01	**0.19**	**0.17**	<0.02	<0.01	**0.35**	<0.01	<0.01	
	9/16/2013	8270C	<0.01	<0.04	<0.01	<0.01	**0.51**	**0.44**	<0.01	<0.01	**0.66**	<0.01	<0.01	
	8/23/2012	8270C	<0.01	<0.02	<0.01	<0.01	**0.65**	**0.49**	<0.01	<0.01	**0.55**	<0.01	<0.01	
	10/4/2011	8270C	<0.1	<0.2	<0.1	<0.1	**0.59**	**0.42**	<0.1	<0.1	**0.46**	<0.1	<0.1	

DEFINITIONS

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STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

2) Recovery wells added to the approved 2010 FWGWMP (8/25/10) annual sampling schedule.

8.12 OW-1, OW-10

BTEX Analytical Result Summary

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED Tap Water (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
Well ID	**DATE SAMPLED**	**METHOD**					
OW-1	11/15/2016	8260B	1.6E-03	<0.001	3.9E-04	<0.0015	8.8E-04
	9/6/2016	8260B	<0.001	<0.001	<0.001	<0.0015	8.8E-04
	6/6/2016	8290B	1.3E-04	<0.001	<0.001	<0.0015	1.0E-03
	3/3/2016	8260B	<0.001	<0.001	<0.001	<0.0015	7.4E-04
	10/28/2015	8260B	1.4E-03	2.4E-03	<0.001	2.2E-03	1.6E-03
	8/12/2015	8260B	<0.002	<0.002	<0.002	<0.003	<0.002
	6/3/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/9/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/10/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/11/2014	8260B	<0.002	<0.002	<0.002	<0.003	<0.002
	6/3/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/7/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/11/2013	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/4/2013	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/13/2013	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/19/2013	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/27/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/22/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/13/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/22/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/15/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/27/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/20/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/1/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/10/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/21/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/15/2010	8021B	<0.001	<0.001	<0.001	<0.0015	<0.001
OW-10	11/15/2016	8260B	<0.001	<0.001	<0.001	<0.0015	0.028
	9/6/2016	8260B	<0.001	<0.001	<0.001	<0.0015	0.035
	6/6/2016	8260B	<0.001	<0.001	<0.001	<0.0015	0.033
	3/3/169	8260B	<0.001	<0.001	<0.001	<0.0015	0.039
	10/28/2015	8260B	<0.001	2.3E-03	1.1E-03	4.2E-03	0.051
	8/12/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.058
	6/3/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.055
	3/9/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.061
	11/10/2014	8260B	<0.001	<0.001	<0.001	<0.0015	0.098
	9/12/2014	8260B	<0.001	<0.001	<0.001	<0.0015	0.11
	6/3/2014	8260B	<0.001	<0.001	<0.001	<0.0015	0.092
	3/7/2014	8260B	<0.001	<0.001	<0.001	<0.0015	0.079
	11/11/2013	8260B	<0.001	<0.001	<0.001	<0.0015	0.062
	9/4/2013	8260B	<0.001	<0.001	<0.001	<0.0015	0.065
	6/13/2013	8260B	<0.001	<0.001	<0.001	<0.0015	**0.22**
	3/19/2013	8260B	<0.001	<0.001	<0.001	<0.0015	**0.17**
	11/27/2012	8260B	<0.001	<0.001	<0.001	<0.0015	**0.23**
	8/22/2012	8260B	<0.001	<0.001	<0.001	<0.0015	0.044
	6/13/2012	8260B	<0.001	<0.001	<0.001	<0.0015	0.13
	3/22/2012	8260B	<0.001	<0.001	<0.001	<0.0015	0.031
	12/15/2011	8260B	<0.001	<0.001	<0.001	<0.0015	0.058
	10/26/2011	8260B	<0.001	<0.001	<0.001	<0.0015	0.038
	6/20/2011	8260B	<0.001	<0.001	<0.001	<0.0015	0.046

8.12 OW-1, OW-10

BTEX Analytical Result Summary

STANDARDS			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED Tap Water (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
Well ID	**DATE SAMPLED**	**METHOD**					
OW-10	2/28/2011	8260B	<0.001	<0.001	<0.001	<0.0015	0.036
	11/10/2010	8260B	<0.001	<0.001	<0.001	<0.0015	0.036
	9/21/2010	8260B	<0.001	<0.001	<0.001	<0.0015	0.037
	3/15/2010	8260B	<0.001	<0.001	<0.001	<0.0015	0.033

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STANDARDS

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a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.12.1 OW-1, OW-10

General Chemistry Analytical Result Summary

STANDARDS			PARAMETERS							
			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	NE	**10**	**600.0**	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	**10.0**	10	NE	NE	NE	NE
NMED Tap Water (JUL 2015)			1.18	NE	1.97	31.6	NE	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			0.8	NE	2	32	NE	NE	NE	NE
Well ID	**DATE SAMPLED**	**METHOD**								
OW-1	11/15/2016	300.0/8015D	0.25	81	<1.0	0.29	160	<1.0	<0.05	<5.0
	9/6/2016	300.0/8015D	<0.5	83	0.72	0.72	180	<1.0	<0.05	<5.0
	6/6/2016	300.0/8015D	0.24	74	0.49	0.49	170	<1.0	<0.05	<5.0
	3/3/2016	300.0/8015D	0.27	70	<0.1	0.25	160	<1.0	<0.05	<5.0
	10/8/2015	300.0/8015B	0.25	71	<1.0	<1.0	160	<1.0	<0.05	<5.0
	8/12/2015	300.0/8015D	0.29	68	<1.0	<1.0	160	<1.0	<0.1	<5.0
	6/3/2015	300.0/8015D	<0.5	77	<1.0	<1.0	190	<1.0	<0.05	<5.0
	3/9/2015	300.0/8015D	0.23	67	<1.0	<1.0	170	<1.0	<0.05	<5.0
	11/10/2014	300.0/8015B	0.3	72	<0.1	0.3	170	<1.0	<0.05	<5.0
	9/11/2014	300.0/8015B	<0.5	60	<1.0	<1.0	150	<1.0	<0.05	<5.0
	6/3/2014	300.0/8015B	0.26	66	<1.0	<1.0	160	<1.0	<0.05	<5.0
	3/7/2014	300.0/8015B	0.3	65	<1.0	<1.0	170	<1.0	<0.05	<5.0
	11/11/2013	300.0/8015B	0.28	65	4.7	4.7	170	<1.0	<0.05	NA
	9/4/2013	300.0/8015B	0.3	66	**29**	**29**	180	<1.0	<0.05	<5.0
	6/13/2013	300.0/8015B	<1.0	61	<1.0	<1.0	180	<1.0	<0.05	<5.0
	3/19/2013	300.0/8015B	<0.5	70	<1.0	<1.0	200	<1.0	<0.05	<5.0
	11/27/2012	300.0/8015B	<0.5	72	<1.0	<1.0	180	<1.0	<0.05	<5.0
	8/22/2012	300.0/8015B	0.24	62	<1.0	<1.0	170	<1.0	<0.05	<5.0
	6/13/2012	300.0/8015B	0.34	61	<1.0	<1.0	180	<1.0	<0.05	<5.0
	3/22/2012	300.0/8015B	0.34	62	<0.1	0.33	170	<1.0	<0.05	<5.0
	12/15/2011	300.0/8015B	0.31	63	<1.0	<1.0	180	<1.0	<0.05	NL
	10/27/2011	300.0/8015B	0.3	65	<1.0	<1.0	180	NL	<0.05	<5.0
	6/20/2011	300.0/8015B	0.33	64	<0.1	0.5	180	<1.0	<0.05	<1.0
	3/1/2011	300.0/8015B	0.29	68	1.1	1.1	180	<1.0	<0.05	
	11/10/2010	300.0/8015B	0.31	64	<1.0	<1.0	180	<1.0	<0.05	
	9/10/2010	300.0/8015B	0.32	60	<1.0	<1.0	190	<1.0	<0.05	
	3/15/2010	300.0/8015B	0.33	58	4.1	4.1	190	<1.0	<0.05	
OW-10	11/15/2016	300.0/8015D	0.2	**550**	<1.0	<0.5	190	<1.0	0.04	<5.0
	9/6/2016	300.0/8015D	<0.5	**1100**	<1.0	<1.0	230	<1.0	<0.05	<5.0
	6/6/2016	300.0/8015D	0.22	**960**	0.49	0.49	200	<1.0	0.047	<5.0
	3/3/2016	300.0/8015D	0.2	**1100**	<2.0	0.4	200	<1.0	0.046	<5.0
	10/28/2015	300.0/8015B	<0.1	**1500**	<1.0	<1.0	220	<1.0	<0.05	<5.0
	8/12/2015	300.0/8015D	<0.1	**1900**	<1.0	<1.0	240	<1.0	0.064	<5.0
	6/3/2015	300.0/8015D	<0.5	**1500**	<1.0	<1.0	240	<1.0	0.067	<5.0
	3/9/2015	300.0/8015D	0.22	**840**	<1.0	<1.0	200	<1.0	<0.05	<5.0
	11/10/2014	300.0/8015B	0.2	**1600**	<2.0	0.22	200	<1.0	0.087	<5.0
	9/12/2014	300.0/8015B	0.12	**1500**	<1.0	<1.0	200	<1.0	0.064	<5.0
	6/3/2014	300.0/8015B	<0.1	**1500**	<4.0	<4.0	200	<1.0	0.069	<5.0
	3/7/2014	300.0/8015B	0.2	**1200**	<1.0	<1.0	190	<1.0	<0.05	<5.0
	11/11/2013	300.0/8015B	0.17	**850**	1.3	1.3	150	<1.0	0.055	NA
	9/4/2013	300.0/8015B	0.19	**1200**	**11**	**11**	180	<1.0	0.051	<5.0
	6/13/2013	300.0/8015B	<1.0	**2400**	<1.0	<1.0	250	<1.0	0.15	<5.0
	3/19/2013	300.0/8015B	<0.5	**1700**	<1.0	<1.0	230	<1.0	0.11	<5.0
	11/27/2012	300.0/8015B	<0.5	**2100**	<4.0	<4.0	240	<1.0	0.13	<5.0
	8/22/2012	300.0/8015B	0.34	**280**	<1.0	<1.0	130	<1.0	<0.05	<5.0
	6/13/2012	300.0/8015B	0.31	**980**	<1.0	<1.0	160	<1.0	0.14	<5.0
	3/22/2012	300.0/8015B	0.41	**260**	<0.1	0.59	140	<1.0	0.062	<5.0
	12/15/2011	300.0/8015B	0.31	**420**	<1.0	<1.0	150	<1.0	0.084	<5.0
	10/26/2011	300.0/8015B	0.34	**500**	<2.0	0.38	140	NL	<0.05	NL
	6/20/2011	300.0/8015B	<0.50	**300**	<2.0	0.52	140	<1.0	0.053	<5.0
	2/28/2011	300.0/8015B	0.34	**490**	1.1	1.1	140	<1.0	0.062	<5.0
	11/10/2010	300.0/8015B	0.38	**450**	<1.0	<1.0	150	<0.001	<0.05	

8.12.1 OW-1, OW-10

General Chemistry Analytical Result Summary

STANDARDS			Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	NE	**10**	**600.0**	NE	NE	NE
40 CFR 141.62 MCL			4.0	NE	**10.0**	10	NE	NE	NE	NE
NMED Tap Water (JUL 2015)			1.18	NE	1.97	31.6	NE	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			0.8	NE	2	32	NE	NE	NE	NE
Well ID	**DATE SAMPLED**	**METHOD**								
OW-10	9/21/2010	300.0/8015B	0.35	**790**	<1.0	<1.0	160	<0.001	<0.05	
	3/15/2010	300.0/8015B	0.4	**390**	2.2	2.2	150	<0.001	0.064	

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.12.2 OW-1, OW-10

Total Metals Analytical Result Summary

STANDARDS			PARAMETERS										
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Mercury (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**0.002**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	NE	**0.015**	NE	0.05	NE	0.03	0.002	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00624	0.00559	13.8	NE	2.02	0.0987	0.0812	0.0592	0.000626	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	14	0.015	0.43	0.1	0.094	0.06	6.3E-04	6
Well ID	**DATE SAMPLED**	**METHOD**												
OW-1	11/15/2016	200.7/200.8	<0.005	0.036	<0.002	<0.006	0.24	1.3E-04	8.8E-03	4.2E-03	1.6E-03	**0.039**	<0.0002	0.025
	9/6/2016	200.7/200.8	3.1E-03	0.17	<0.002	0.043	**9.2**	0.015	**0.35**	4.1E-03	<0.005	**0.045**	8.7E-05	0.069
	6/6/2016	200.7/200.8	2.2E-03	0.13	<0.002	0.014	<0.006	0.011	**0.22**	4.7E-03	<0.005	**0.041**	8.3E-05	0.042
	3/3/2016	200.7/200.8	1.6E-03	0.044	<0.002	5.5E-03	0.71	1.2E-03	0.034	4.1E-03	<0.005	**0.042**	5.7E-05	0.021
	10/28/2015	200.7/200.8	3.8E-03	0.18	<0.002	**0.056**	**11**	0.015	**0.42**	<0.005	<0.005	**0.042**	<0.0002	0.06
	8/12/2015	200.7/200.8	**0.036**	2.1	<0.01	**0.51**	**140**	**0.25**	**6.7**	<0.01	<0.005	**0.098**	<0.0002	0.65
	6/3/2015	200.7/200.8	<0.01	0.047	<0.002	<0.006	1.0	<0.005	0.05	<0.01	<0.005	**0.042**	<0.0002	<0.01
	3/9/2015	200.7/200.8	<0.005	0.04	<0.002	<0.006	0.54	<0.001	0.024	<0.005	<0.005	**0.042**	<0.0002	<0.01
	11/10/2014	200.7/200.8	<0.001	0.036	<0.002	<0.006	0.27	<0.001	6.7E-03	2.9E-03	<0.005	**0.043**	<0.0002	<0.01
	9/11/2014	200.7/200.8	**0.013**	0.56	<0.002	**0.12**	0.025	**0.078**	**1.7**	<0.01	<0.005	**0.066**	<0.0002	0.19
	6/3/2014	200.7/200.8	<0.005	0.034	<0.002	<0.006	**1.7**	0.003	0.073	<0.005	<0.005	**0.042**	<0.0002	0.031
	3/7/2014	200.7/200.8	<0.001	0.041	<0.002	<0.006	0.28	<0.001	0.02	3.4E-03	<0.005	**0.042**	<0.0002	0.01
	11/11/2013	200.7/200.8	1.2E-03	0.048	<0.002	<0.006	**1.2**	1.9E-03	0.053	3.6E-03	<0.005	**0.039**	<0.0002	<0.01
	9/4/2013	200.7/200.8	1.1E-03	0.037	<0.002	<0.006	0.37	<0.001	0.02	3.5E-03	<0.005	**0.043**	<0.0002	<0.01
	6/13/2013	200.7/200.8	6.1E-03	0.26	<0.002	0.028	0.19	NA	**0.82**	4.2E-03	<0.005	**0.052**	<0.0002	0.07
	3/19/2013	200.7/200.8	<0.0025	0.035	<0.002	<0.006	0.088	<0.005	7.4E-03	3.2E-03	<0.005	**0.044**	<0.0002	<0.01
	11/27/2012	200.7/200.8	<0.0025	0.035	<0.002	<0.006	<0.006	<0.005	0.013	2.6E-03	<0.005	**0.045**	<0.0002	<0.01
	8/22/2012	200.7/200.8	<0.0025	0.039	<0.002	<0.006	0.008	<0.005	0.027	4.1E-03	<0.005	**0.04**	<0.0002	<0.01
	6/13/2012	200.7/200.8	<0.0025	0.035	<0.002	<0.006	<0.006	<0.005	0.012	4.2E-03	<0.005	**0.039**	<0.0002	<0.01
	3/22/2012	200.7/200.8	<0.0025	0.045	<0.002	<0.006	<0.006	<0.005	0.058	3.5E-03	<0.005	**0.041**	<0.0002	0.01
	12/15/2011	200.7/200.8	<0.0025	0.066	<0.002	7.2E-03	**2.7**	<0.005	0.13	3.7E-03	<0.005	**0.046**	<0.0002	0.25
	10/27/2011	200.7/200.8	<0.0025	0.036	<0.002	<0.006	0.042	<0.005	0.013	3.5E-03	<0.005	**0.04**	<0.0002	<0.01
	6/20/2011	200.7/200.8	<0.0025	0.039	<0.002	<0.006	0.053	<0.005	0.016	5.6E-03	<0.005	**0.047**	<0.0002	<0.01
	3/1/2011	200.7/200.8	<0.0025	0.038	<0.002	<0.006	0.058	<0.005	0.013	<0.05	<0.005	**0.053**	NA	<0.01
	11/10/2010	6010B	<0.02	<0.02	<0.002	<0.006	<0.05	<0.005	6.6E-03	<0.05	<0.005	**0.039**	<0.0002	<0.02
	9/21/2010	6010B	<0.02	0.038	<0.002	<0.006	0.081	<0.005	0.023	<0.05	<0.005	**0.038**	<0.0002	<0.02
	3/15/2010	6010B	<0.02	0.031	<0.002	<0.006	0.16	<0.005	0.012	<0.05	<0.005	**3.94E-02**	<0.0002	<0.02
OW-10	11/15/2016	200.7/200.8	2.1E-03	0.047	<0.002	<0.006	<0.02	<0.0025	0.047	0.016	2.7E-03	**0.055**	6.2E-05	<0.01
	9/6/2016	200.7/200.8	3.5E-03	0.061	<0.002	<0.006	<0.02	1.9E-04	0.11	0.013	<0.005	**0.056**	5.8E-05	<0.01
	6/6/2016	200.7/200.8	2.3E-03	0.064	<0.002	<0.006	0.01	2.4E-04	0.11	0.015	<0.005	**0.057**	6.6E-05	<0.01
	3/3/2016	200.7/200.8	1.5E-03	0.068	<0.002	<0.006	<0.02	2.6E-04	0.11	0.013	3.8E-03	**0.060**	<0.0002	<0.01
	10/28/2015	200.7/200.8	<0.005	0.095	<0.002	<0.006	<0.02	<0.0025	**0.22**	0.013	<0.005	**0.061**	<0.0002	<0.01
	8/12/2015	200.7/200.8	<0.005	0.11	<0.002	<0.006	0.038	<0.0005	**0.33**	0.011	<0.005	**0.064**	<0.0002	0.011
	6/3/2015	200.7/200.8	<0.01	0.095	<0.002	<0.006	<0.02	<0.005	0.15	<0.02	<0.005	**0.063**	<0.0002	<0.01
	3/9/2015	200.7/200.8	<0.005	0.067	<0.002	<0.006	<0.02	<0.001	0.087	0.012	<0.005	**0.061**	<0.0002	<0.01
	11/10/2014	200.7/200.8	<0.005	0.082	<0.002	<0.006	<0.02	<0.001	0.18	<0.02	<0.005	**0.066**	<0.0002	<0.01
	9/12/2014	200.7/200.8	<0.01	0.086	<0.002	<0.006	<0.02	<0.001	0.18	0.017	<0.005	**0.065**	<0.0002	<0.01
	6/3/2014	200.7/200.8	<0.005	0.094	<0.002	<0.006	<0.02	<0.001	0.14	0.015	<0.005	**0.064**	<0.0002	<0.01
	3/7/2014	200.7/200.8	<0.005	0.071	<0.002	<0.006	<0.02	<0.001	0.086	0.012	<0.005	**0.06**	<0.0002	<0.01
	11/11/2013	200.7/200.8	1.8E-03	0.058	<0.002	<0.006	<0.02	<0.001	0.07	0.011	<0.005	**0.057**	<0.0002	<0.01
	9/4/2013	200.7/200.8	<0.005	0.084	<0.002	<0.006	<0.02	<0.001	0.12	0.011	<0.025	**0.061**	<0.0002	<0.01
	6/13/2013	200.7/200.8	<0.005	0.12	<0.002	<0.006	<0.02	NA	0.14	0.017	0.015	**0.076**	<0.0002	<0.01
	3/19/2013	200.7/200.8	<0.0025	0.11	<0.002	<0.006	<0.02	<0.005	0.16	9.8E-03	<0.005	**0.077**	<0.0002	<0.01
	11/27/2012	200.7/200.8	<0.0025	0.11	<0.002	<0.006	<0.006	<0.005	0.13	0.013	<0.005	**0.087**	<0.0002	<0.01

8.12.2 OW-1, OW-10

Total Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Mercury (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**0.002**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	NE	**0.015**	NE	0.05	NE	0.03	0.002	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00624	0.00559	13.8	NE	2.02	0.0987	0.0812	0.0592	0.000626	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	14	0.015	0.43	0.1	0.094	0.06	6.3E-04	6
Well ID	**DATE SAMPLED**	**METHOD**												
OW-10	8/22/2012	200.7/200.8	<0.0025	0.037	<0.002	<0.006	<0.006	<0.005	3.4E-03	8.4E-03	<0.005	**0.049**	<0.0002	<0.01
	6/13/2012	200.7/200.8	<0.0025	0.079	<0.002	<0.006	<0.006	<0.005	0.054	0.013	<0.005	**0.062**	<0.0002	<0.01
	3/22/2012	200.7/200.8	<0.0025	0.033	<0.002	<0.006	<0.006	<0.005	<0.002	7.6E-03	<0.005	**0.051**	<0.0002	<0.01
	12/15/2011	200.7/200.8	<0.0025	0.037	<0.002	<0.006	<0.02	<0.005	0.022	8.9E-03	<0.005	**0.058**	<0.0002	<0.01
	10/26/2011	200.7/200.8	<0.0025	0.045	<0.002	<0.006	<0.02	<0.005	0.043	7.1E-03	<0.005	**0.051**	<0.0002	<0.01
	6/20/2011	200.7/200.8	<0.0025	0.038	<0.002	<0.006	<0.02	<0.005	8.6E-03	0.013	<0.005	**0.057**	<0.0002	<0.01
	2/28/2011	200.7/200.8	<0.0025	0.045	<0.002	<0.006	<0.02	<0.005	0.03	<0.05	<0.005	**0.054**	NA	<0.01
	11/10/2010	6010B	<0.02	0.062	<0.002	<0.006	<0.02	<0.005	0.04	<0.05	<0.005	**0.052**	<0.0002	<0.02
	9/21/2010	6010B	<0.02	0.071	<0.002	<0.006	<0.02	<0.005	0.068	<0.05	<0.005	**0.057**	<0.0002	<0.02
	3/15/2010	6010B	<0.02	0.046	<0.002	<0.006	<0.02	<0.005	0.013	<0.05	<0.005	**5.25E-02**	<0.0002	<0.02

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.12.3 OW-1, OW-10

Dissolved Metals Analytical Result Summary

			PARAMETERS										
		STANDARDS	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
		WQCC 20NMAC 6.2.3103	0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
		40 CFR 141.62 MCL	**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.03	NE
		NMED Tap Water (JUL 2015)	0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
		EPA RSL for Tap Water (MAY 2016)	5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.094	0.06	6
Well ID	DATE SAMPLED	METHOD												
OW-1	11/15/2016	200.7/200.8	1.2E-03	0.034	<0.002	0.021	<0.006	<0.02	<0.0005	2.9E-03	4.7E-03	<0.005	**0.039**	<0.01
	9/6/2016	200.7/200.8	1.5E-03	0.039	<0.002	0.0023	<0.006	0.31	1.4E-03	0.026	4.1E-03	<0.005	**0.04**	0.096
	6/6/2016	200.7/200.8	2.4E-03	0.072	<0.002	1.9E-03	<0.006	0.82	4.8E-03	0.092	4.6E-03	<0.005	**0.041**	0.022
	3/3/2016	200.7/200.8	1.2E-03	0.031	<0.002	<0.006	<0.006	0.026	1.5E-04	7.4E-03	3.8E-03	<0.005	**0.039**	0.062
	10/28/2015	200.7/200.8	<0.005	0.083	<0.002	0.021	<0.006	**1.1**	0.0081	0.11	5.0E-03	<0.005	**0.043**	0.02
	8/12/2015	200.7/200.8	<0.005	0.1	<0.002	0.042	<0.006	**11**	7.2E-03	0.13	<0.005	<0.005	**0.042**	0.028
	6/3/2015	200.7/200.8	<0.01	0.033	<0.002	<0.006	<0.006	<0.02	<0.01	0.006	<0.01	<0.005	**0.041**	0.034
	3/9/2015	200.7/200.8	<0.001	0.034	<0.002	<0.006	<0.006	<0.02	<0.001	5.5E-03	4.7E-03	<0.005	**0.039**	<0.01
	11/10/2014	200.7/200.8	1.3E-03	0.033	<0.002	<0.006	<0.006	0.048	<0.02	<0.002	3.7E-03	<0.005	**0.038**	0.031
	9/11/2014	200.7/200.8	2.5E-03	0.12	<0.002	8.2E-03	<0.006	**7.1**	**0.017**	**0.23**	4.4E-03	<0.005	**0.048**	0.078
	6/3/2014	200.7/200.8	1.6E-03	0.039	<0.002	<0.006	<0.006	0.64	<0.005	0.025	6.6E-03	<0.005	**0.044**	0.013
	3/7/2014	200.7/200.8	<0.001	0.035	<0.002	<0.006	<0.006	<0.02	<0.001	6.3E-03	3.9E-03	<0.005	**0.043**	0.012
	11/11/2013	200.7/200.8	1.2E-03	0.038	<0.002	<0.006	<0.006	<0.02	<0.001	7.5E-03	4.6E-03	<0.005	**0.041**	0.029
	9/4/2013	200.7/200.8	<0.005	0.033	<0.002	<0.006	<0.006	0.037	<0.005	6.2E-03	<0.005	<0.005	**0.045**	<0.01
	6/13/2013	200.7/200.8	1.4E-03	0.035	<0.002	<0.006	<0.006	0.35	<0.001	0.013	4.9E-03	<0.005	**0.043**	0.25
	3/19/2013	200.7/200.8	1.3E-03	0.03	<0.002	<0.006	<0.006	<0.02	<0.005	<0.002	3.6E-03	<0.005	**0.044**	0.037
	11/27/2012	200.7/200.8	1.2E-03	0.033	<0.01	<0.03	<0.03	<0.1	<0.025	<0.01	0.004	<0.025	**0.043**	<0.05
	8/22/2012	200.7/200.8	<0.001	0.029	<0.002	<0.006	<0.006	<0.02	<0.005	8.6E-03	3.6E-03	<0.005	**0.041**	0.011
	6/13/2012	200.7/200.8	<0.001	0.036	<0.002	<0.006	<0.006	<0.02	<0.005	6.7E-03	3.7E-03	<0.005	**0.043**	0.015
	3/22/2012	200.7/200.8	<0.001	0.034	<0.002	<0.006	<0.006	<0.02	<0.005	0.005	3.7E-03	<0.005	**0.039**	0.027
	12/15/2011	200.7/200.8	<0.001	0.018	<0.002	<0.006	<0.006	0.19	<0.005	0.013	3.1E-03	<0.005	**0.043**	0.018
	10/27/2011	200.7/200.8	<0.001	0.035	<0.002	<0.006	<0.006	<0.02	<0.005	5.9E-03	3.6E-03	<0.005	**0.04**	<0.01
	6/20/2011	200.7/200.8	1.4E-03	0.034	<0.002	<0.006	<0.006	<0.02	<0.005	4.5E-03	6.2E-03	<0.005	**0.043**	0.048
	3/1/2011	200.7/200.8	<0.001	0.037	<0.002	<0.006	<0.006	<0.02	<0.005	4.1E-03	<0.05	<0.005	**0.032**	<0.01
	11/10/2010	6010B	<0.02	0.037	<0.002	<0.006	<0.006	<0.02	<0.005	4.6E-03	<0.05	<0.005	**0.04**	<0.05
	9/21/2010	6010B	<0.02	0.029	<0.002	<0.006	<0.006	<0.02	<0.005	4.1E-03	<0.05	<0.005	**0.038**	<0.05
	3/15/2010	6010B	<0.02	0.028	<0.002	<0.006	<0.006	<0.02	<0.005	<0.002	<0.05	<0.005	**0.0379**	<0.05
OW-10	11/15/2016	200.7/200.8	2.4E-03	0.051	<0.002	<0.006	<0.006	<0.02	1.7E-04	0.076	0.016	<0.005	**0.056**	0.014
	9/6/2016	200.7/200.8	2.7E-03	0.064	<0.002	<0.006	<0.006	<0.02	2.0E-04	0.12	0.015	<0.005	**0.056**	0.062
	6/6/2016	200.7/200.8	3.6E-03	0.065	<0.002	<0.006	<0.006	<0.02	2.2E-04	0.11	0.016	<0.005	**0.058**	0.13
	3/3/2016	200.7/200.8	1.8E-03	0.067	<0.002	<0.006	<0.006	<0.02	2.0E-04	0.12	0.013	<0.005	**0.057**	0.014
	10/28/2015	200.7/200.8	<0.005	0.099	<0.002	<0.006	<0.006	<0.02	<0.0025	**0.22**	0.019	<0.005	**0.061**	<0.01
	8/12/2015	200.7/200.8	<0.005	0.066	<0.002	<0.006	<0.006	<0.02	<0.0025	0.1	0.013	<0.005	**0.056**	<0.01
	6/3/2015	200.7/200.8	<0.01	0.074	<0.002	<0.006	<0.006	<0.02	<0.01	0.075	0.014	<0.005	**0.059**	0.01
	3/9/2015	200.7/200.8	<0.005	0.076	<0.002	<0.006	<0.006	<0.02	<0.001	0.11	<0.05	<0.005	**0.057**	<0.01
	11/10/2014	200.7/200.8	<0.01	0.039	<0.002	<0.006	<0.006	<0.02	<0.01	9.9E-03	0.013	<0.005	**0.057**	0.038
	9/12/2014	200.7/200.8	<0.005	0.099	<0.002	<0.006	<0.006	<0.02	<0.01	0.2	0.017	<0.005	**0.064**	<0.01
	6/3/2014	200.7/200.8	<0.005	0.094	<0.002	<0.006	<0.006	<0.02	<0.005	0.13	0.017	<0.005	**0.062**	<0.01
	3/7/2014	200.7/200.8	<0.005	0.071	<0.002	<0.006	<0.006	<0.02	<0.001	0.098	9.5E-03	<0.005	**0.057**	<0.01
	11/11/2013	200.7/200.8	2.1E-03	0.063	<0.002	<0.006	<0.006	<0.02	<0.001	0.066	0.013	<0.005	**0.054**	<0.01
	9/4/2013	200.7/200.8	<0.005	0.082	<0.002	<0.006	<0.006	<0.02	<0.005	0.12	0.011	<0.025	**0.066**	<0.01
	6/13/2013	200.7/200.8	2.5E-03	0.12	<0.002	<0.006	<0.006	<0.02	<0.001	0.14	0.019	0.012	**0.076**	0.018
	3/19/2013	200.7/200.8	<0.005	0.1	<0.002	<0.006	<0.006	<0.02	<0.005	0.15	0.015	<0.005	**0.073**	<0.01
	11/27/2012	200.7/200.8	1.7E-03	0.11	<0.01	<0.03	<0.03	<0.1	<0.025	0.13	0.015	<0.025	**0.078**	0.05
	8/22/2012	200.7/200.8	0.001	0.034	<0.002	<0.006	<0.006	<0.02	<0.005	<0.002	7.6E-03	<0.005	**0.05**	<0.01
	6/13/2012	200.7/200.8	<0.002	0.08	<0.002	<0.006	<0.006	<0.02	<0.005	0.053	0.014	<0.005	**0.067**	0.026
	3/22/2012	200.7/200.8	<0.001	0.033	<0.002	<0.006	<0.006	<0.02	<0.005	2.3E-03	7.6E-03	<0.005	**0.048**	0.024

8.12.3 OW-1, OW-10

Dissolved Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.094	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**												
OW-10	12/15/2011	200.7/200.8	<0.001	0.038	<0.002	<0.006	<0.006	<0.02	<0.005	0.023	8.9E-03	<0.005	**0.056**	<0.01
	10/26/2011	200.7/200.8	0.001	0.043	<0.002	<0.006	<0.006	<0.02	<0.005	0.04	7.9E-03	<0.005	**0.05**	<0.01
	6/20/2011	200.7/200.8	0.002	0.034	<0.002	<0.006	<0.006	<0.02	<0.005	5.5E-03	0.015	<0.005	**0.052**	0.16
	2/28/2011	200.7/200.8	<0.001	0.044	<0.002	<0.006	<0.006	<0.02	<0.005	0.029	<0.05	<0.005	**0.055**	<0.01
	11/10/2010	6010B	<0.02	0.047	<0.002	<0.006	<0.006	<0.02	<0.005	0.03	<0.05	<0.005	**0.052**	<0.05
	9/21/2010	6010B	<0.02	0.064	<0.002	<0.006	<0.006	<0.02	<0.005	0.055	<0.05	<0.005	**0.051**	0.088
	3/15/2010	6010B	<0.02	0.044	<0.002	<0.006	<0.006	<0.02	<0.005	0.012	<0.05	<0.005	**0.0497**	<0.05

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.12.4 OW-1, OW-10

Volatile Organic Compound Analytical Result Summary

STANDARDS			PARAMETERS					
			1,2,4-Trimethylbenzene (mg/L)	1,1-Dichloroethane (mg/L)	1,1-Dichloroethene (mg/L)	1,2-Dichloroethane (EDC) (mg/L)	1,2-Dibromoethane (EDB) [1] (mg/L)	cis-1,2-DCE (mg/L)
WQCC 20NMAC 6.2.3103			NE	**0.025**	**0.005**	0.01	0.0001	**0.005**
40 CFR 141.62 MCL			NE	NE	0.007	**0.005**	**0.00005**	0.07
NMED Tap Water (JUL 2015)			NE	0.0275	0.284	0.00171	0.0000746	0.0365
EPA RSL for Tap Water (MAY 2016)			**0.015**	0.0028	0.28	0.017	0.0000075	0.036
Well ID	**DATE SAMPLED**	**METHOD**						
OW-10	11/15/2016	8260B/8011/504.1EDB	<0.001	8.5E-04	6.7E-04	5.2E-04	<0.00001	2.8E-04
	9/6/2016	8260B/8011/504.1EDB	<0.0.01	9.3E-04	7.6E-04	7.3E-04	<0.01	2.9E-04
	6/6/2016	8260B	<0.001	1.1E-03	9.0E-04	5.1E-04	<0.001	3.1E-04
	3/3/2016	8260B	<0.001	9.6E-04	9.1E-04	5.5E-04	<0.001	2.6E-04
	10/28/2015	8260B	1.6E-03	<0.001	<0.001	<0.001		
	8/12/2015	8260B		1.1E-03	<0.001	<0.001		
	6/3/2015	8260B		<0.001	<0.001	<0.001		
	3/9/2015	8260B		<0.001	<0.001	<0.001		
	11/10/2014	8260B		1.3E-03	1.7E-03	<0.001		
	9/12/2014	8260B		1.6E-03	1.8E-03	1.1E-03		
	6/3/2014	8260B		1.2E-03	1.2E-03	<0.001		
	3/7/2014	8260B		<0.001	<0.001	<0.001		
	11/11/2013	8260B		<0.001	<0.001	<0.001		
	9/4/2013	8260B		<0.001	<0.001	<0.001		
	6/13/2013	8260B		1.6E-03	1.9E-03	0.001		
	3/19/2013	8260B		1.5E-03	1.9E-03	1.3E-03		
	11/27/2012	8260B		1.6E-03	2.1E-03	1.1E-03		

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) New requirement per NMED directive "Approval with Modifications" dated May 18, 2016.

8.13 OW-13, OW-14, OW-29, OW-30

BTEX Analytical Result Summary

STANDARDS			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED TAP WATER (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
Well ID	**DATE SAMPLED**	**METHOD**					
OW-13	11/15/2016	8260B	<0.001	<0.001	<0.001	<0.0015	0.044
	8/31/2016	8260B	1.3E-04	<0.001	<0.001	<0.0015	0.038
	6/6/2016	8260B	<0.001	<0.001	<0.001	<0.0015	0.036
	3/4/2016	8260B	<0.001	<0.001	<0.001	<0.0015	0.035
	10/27/2015	8260B	<0.001	1.3E-03	<0.001	1.6E-03	0.035
	8/11/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.031
	6/1/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.025
	3/9/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.026
	11/10/2014	8260B	<0.001	<0.001	<0.001	<0.0015	0.027
	9/15/2014	8260B	<0.001	<0.001	<0.001	<0.0015	0.023
	6/3/2014	8260B	<0.001	<0.001	<0.001	<0.0015	0.02
	3/7/2014	8260B	<0.001	<0.001	<0.001	<0.0015	0.023
	11/11/2013	8260B	<0.001	<0.001	<0.001	<0.0015	0.017
	9/4/2013	8260B	<0.001	<0.001	<0.001	<0.0015	0.014
	6/13/2013	8260B	<0.001	<0.001	<0.001	<0.0015	0.015
	3/19/2013	8260B	<0.001	<0.001	<0.001	<0.0015	0.012
	11/27/2012	8260B	<0.001	<0.001	<0.001	<0.0015	0.011
	8/23/2012	8260B	<0.001	<0.001	<0.001	<0.0015	9.2E-03
	6/14/2012	8260B	<0.001	<0.001	<0.001	<0.0015	7.9E-03
	3/21/2012	8260B	<0.001	<0.001	<0.001	<0.0015	8.2E-03
	12/13/2011	8260B	<0.001	<0.001	<0.001	<0.0015	6.5E-03
	10/25/2011	8260B	<0.001	<0.001	<0.001	<0.0015	6.2E-03
	6/20/2011	8260B	<0.001	<0.001	<0.001	<0.0015	4.8E-03
	2/24/2011	8260B	<0.001	<0.001	<0.001	<0.0015	0.004
	11/8/2010	8260B	<0.001	<0.001	<0.001	<0.0015	3.8E-03
	9/22/2010	8260B	<0.001	<0.001	<0.001	<0.0015	3.1E-03
	6/7/2010	8021B	<0.001	<0.001	<0.001	<0.0015	2.7E-03
	3/25/2010	8021B	<0.001	<0.001	<0.001	<0.0015	2.3E-03
OW-14	11/15/2016	8260B	**8.7**	5.7E-03	0.3	0.013	**0.5**
	8/31/2016	8260B	**8.1**	0.0029	0.25	0.008	**0.58**
	6/6/2016	8260B	**7.8**	2.6E-03	0.23	0.012	**0.62**
	3/4/2016	8260B	**6.5**	<0.05	0.23	<0.075	**0.68**
	10/27/2015	8260B	**6.2**	<0.02	0.15	<0.03	**0.57**
	8/10/2015	8260B	**5.4**	<0.01	0.16	<0.015	**0.78**
	6/1/2015	8260B	**4.6**	<0.02	0.16	<0.03	**0.74**
	3/9/2015	8260B	**3.9**	<0.02	0.16	<0.03	**0.76**
	11/10/2014	8260B	**3.6**	0.015	0.17	<0.015	**0.81**
	9/15/2014	8260B	**3.8**	<0.02	0.16	<0.03	**0.82**
	6/3/2014	8260B	**3.7**	<0.02	0.12	<0.03	**0.93**
	3/7/2014	8260B	**4.0**	0.026	0.14	0.032	**1.1**
	11/11/2013	8260B	**3.3**	0.046	0.13	0.019	**1.1**
	9/4/2013	8260B	**2.6**	<0.005	0.063	<0.0075	**0.94**
	6/13/2013	8260B	**3.4**	<0.01	0.073	<0.015	**1.3**
	3/19/2013	8260B	**2.8**	<0.01	0.065	<0.015	**1.3**
	11/27/2012	8260B	**2.7**	<0.01	0.056	<0.015	**1.4**
	8/23/2012	8260B	**2.1**	<0.01	0.037	<0.015	**1.6**

8.13 OW-13, OW-14, OW-29, OW-30

BTEX Analytical Result Summary

STANDARDS			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED TAP WATER (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
Well ID	**DATE SAMPLED**	**METHOD**					
OW-14	6/14/2012	8260B	**2.6**	<0.01	0.053	<0.015	**1.2**
	3/21/2012	8260B	**2.3**	<0.01	0.051	<0.015	**1.4**
	12/13/2011	8260B	**1.5**	<0.005	0.036	<0.0075	**1.3**
	10/24/2011	8260B	**1.4**	<0.005	0.045	<0.0075	**1.4**
	6/20/2011	8260B	**1.8**	1.5E-03	0.061	<0.0015	**1.6**
	2/24/2011	8260B	**1.3**	1.9E-03	0.042	<0.0015	**1.4**
	11/8/2010	8260B	**0.63**	<0.001	0.018	<0.0015	**1.3**
	9/22/2010	8260B	**0.47**	<0.001	8.3E-03	<0.0015	**1.4**
	6/7/2010	8260B	**0.33**	1.8E-03	8.5E-03	<0.0015	**1.4**
	3/24/2010	8260B	**0.25**	<0.005	0.01	<0.0075	**1.5**
OW-29	11/15/2016	8260B	7.9E-03	<0.005	1.1E-03	<0.0075	**3.4**
	8/31/2016	8260B	5.4E-04	<0.001	<0.001	<0.0015	**3.0**
	6/6/2016	8260B	<0.005	<0.005	<0.005	<0.0075	**3.1**
	3/4/2016	8260B	<0.005	<0.005	<0.005	<0.0075	**3.2**
	10/27/2015	8260B	<0.005	<0.005	<0.005	<0.0075	**3.1**
	8/11/2015	8260B	<0.005	<0.005	<0.005	<0.0075	**3.1**
	6/1/2015	8260B	<0.005	<0.005	<0.005	<0.0075	**2.6**
	3/9/2015	8260B	<0.001	<0.001	<0.001	<0.015	**3.2**
	11/11/2014	8260B	<0.005	<0.005	<0.005	<0.015	**3.0**
	9/15/2014	8260B	<0.005	<0.005	<0.005	<0.0075	**2.5**
	6/214	8260B	<0.001	<0.001	<0.001	<0.0015	**2.0**
	3/7/2014	8260B	<0.001	<0.001	<0.001	<0.0015	**2.1**
	11/11/2013	8260B	<0.002	<0.002	<0.002	<0.003	**1.7**
	9/4/2013	8260B	<0.001	<0.001	<0.001	<0.0015	**1.3**
	6/13/2013	8260B	<0.001	<0.001	<0.001	<0.0015	**1.4**
	3/19/2013	8260B	<0.001	<0.001	<0.001	<0.0015	**1.1**
	11/27/2012	8260B	<0.001	<0.001	<0.001	<0.0015	**0.9**
	8/23/2012	8260B	<0.001	<0.001	<0.001	<0.0015	**1.0**
	6/14/2012	8260B	<0.001	<0.001	<0.001	<0.0015	**0.47**
	3/21/2012	8260B	<0.001	<0.001	<0.001	<0.0015	**0.62**
	12/13/2011	8260B	<0.001	<0.001	<0.001	<0.0015	**0.49**
	10/24/2011	8260B	<0.001	<0.001	<0.001	<0.0015	**0.47**
	6/20/2011	8260B	<0.001	<0.001	<0.001	<0.0015	**0.47**
	2/24/2011	8260B	<0.001	<0.001	<0.001	<0.0015	**0.3**
	11/9/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**0.22**
	9/22/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**0.19**
	6/7/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**0.15**
	3/25/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**0.12**
OW-30	11/14/2016	8260B	<0.005	<0.005	<0.005	<0.0075	**3.5**
	8/31/2016	8260B	<0.001	<0.001	<0.001	<0.0015	**3.0**
	6/6/2016	8260B	1.2E-03	<0.005	<0.005	<0.0075	**3.1**
	3/8/2016	8260B	0.0031	<0.002	<0.002	<0.003	**3.5**
	10/27/2015	8260B	<0.005	<0.005	<0.005	<0.0075	**3.5**
	8/10/2015	8260B	<0.001	<0.001	<0.001	<0.0015	**3.8**
	6/2/2015	8260B	<0.005	<0.005	<0.005	<0.0075	**3.1**
	3/9/2015	8260B	<0.001	<0.001	<0.001	<0.0015	**4.0**
	11/11/2014	8260B	<0.005	<0.005	<0.005	<0.0015	**3.6**
	9/17/2014	8260B	<0.001	<0.001	<0.001	<0.0015	**2.8**
	6/3/2014	8260B	<0.001	<0.001	<0.001	<0.0015	**2.7**
	3/7/2014	8260B	<0.001	<0.001	<0.001	<0.0015	**2.9**

8.13 OW-13, OW-14, OW-29, OW-30

BTEX Analytical Result Summary

STANDARDS			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED TAP WATER (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
Well ID	**DATE SAMPLED**	**METHOD**					
OW-30	11/11/2013	8260B	<0.001	<0.001	<0.001	<0.0015	**2.6**
	9/4/2013	8260B	<0.001	<0.001	<0.001	<0.0015	**2.1**
	6/17/2013	8260B	<0.001	<0.001	<0.001	<0.0015	**2.5**
	3/19/2013	8260B	<0.005	<0.005	<0.005	<0.0075	**2.0**
	11/27/2012	8260B	<0.001	<0.001	<0.001	<0.0015	**2.2**
	8/23/2012	8260B	<0.001	<0.001	<0.001	<0.0015	**2.3**
	6/14/2012	8260B	<0.001	<0.001	<0.001	<0.0015	**1.5**
	3/21/2012	8260B	<0.001	<0.001	<0.001	<0.0015	**1.6**
	12/15/2011	8260B	<0.001	<0.001	<0.001	<0.0015	**1.3**
	10/24/2011	8260B	<0.001	<0.001	<0.001	<0.0015	**1.3**
	6/20/2011	8260B	<0.001	<0.001	<0.001	<0.0015	**1.3**
	2/24/2011	8260B	<0.001	<0.001	<0.001	<0.0015	**1.1**
	11/8/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**1.1**
	9/27/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**1.1**
	6/4/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**1.0**
	3/24/2010	8260B	<0.005	<0.005	<0.005	<0.0075	**1.1**

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.13.1 OW-13, OW-14, OW-29, OW-30
DRO/GRO/CATIONS/ANIONSAnalytical Result Summary

STANDARDS			PARAMETERS						
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate + Nitrite as N (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	**1.6**	**250**	**600**	NE
40 CFR 141.62 MCL			NE	NE	NE	NE	NE	NE	**10**
NMED TAP WATER (JUL 2015)			NE	NE	NE	1.2	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			NE	NE	NE	0.08	NE	NE	NE
Well ID	**DATE SAMPLED**	**METHOD**							
OW-13	11/15/2016	8015D	<1.0	<0.05	<5.0				
	8/31/2016	8015D	<1.0	0.068	<5.0				
	6/6/2016	8015D	<1.0	0.052	<5.0				
	3/4/2016	8015D	<1.0	0.045	<5.0				
	10/27/2015	8015D	<1.0	<0.05	<5.0				
	8/10/2015	8015D/300.0	<1.0	<0.05	<5.0	0.27	30	150	4.9
	9/15/2014	8015D/300.0	<1.0	<0.05	<5.0	0.22	28	150	<1.0
	9/4/2013	8015D/300.0	<1.0	<0.05	<5.0	0.28	28	160	2.6
OW-14	11/15/2016	8015D	3.4	29	<5.0				
	8/31/2016	8015D	4.1	31	<5.0				
	6/6/2016	8015D	4.5	27	<5.0				
	3/4/2016	8015D	2.9	27	<5.0				
	10/27/2015	805D	4.1	16	<5.0				
	8/10/2015	8015D/300.0	2.7	8.7	<5.0	<0.5	**320**	<2.5	<1.0
	9/15/2014	8015D/300.0	4.5	8.2	<5.0	0.21	**330**	2.6	<1.0
	9/4/2013	8015D/300.0	7.8	7.6	<5.0	0.21	**350**	3.2	5.9
OW-29	11/15/2016	8015D	<1.0	6.0	<5.0				
	8/31/2016	8015D	<1.0	6.7	<5.0				
	6/6/2016	8015D	<1.0	4.0	<5.0				
	3/4/2016	8015D	<1.0	4.2	<5.0				
	10/27/2015	8015D	<1.0	2.6	<5.0				
	8/11/2015	8015D/300.0	<1.0	2.4	<5.0	0.31	170	70	<1.0
	9/15/2014	8015D/300.0	<1.0	0.52	<5.0	0.3	160	73	<1.0
	9/4/2013	8015D/300.0	<1.0	0.88	<5.0	0.43	160	84	3.9
OW-30	11/14/2016	8015D	<1.0	5.2	<5.0				
	8/31/2016	8015D	<1.0	6.9	<5.0				
	6/6/2016	8015D	<1.0	4.0	<5.0				
	3/8/2016	8015D	<1.0	4.4	<5.0				
	10/27/2015	8015D	<1.0	3.7	<5.0				
	8/10/2015	8015D/300.0	3.6	2.1	<5.0	0.23	180	42	<1.0
	9/7/2014	8015D/300.0	<1.0	1.3	<5.0	0.2	180	45	<1.0
	9/4/2013	8015D/300.0	<1.0	1.4	<5.0	0.26	170	55	4.6

DEFINITIONS
NE = Not established
NA = Not analyzed
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.13.2 OW-13, OW-14, OW-29, OW-30

Total Metals Analytical Result Summary

STANDARDS			PARAMETERS												
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.002	0.03	NE
NMED TAP WATER (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.094	6.30E-04	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**													
OW-13	11/15/2016	200.7/200.8	1.6E-03	0.02	<0.002	<0.006	<0.006	<0.02	<0.0005	0.021	3.3E-03	<0.005	6.2E-05	0.017	<0.01
	8/31/2016	200.7/200.8	1.5E-03	0.019	<0.002	<0.006	<0.006	<0.02	<0.0005	0.021	2.1E-03	<0.005	NA	0.018	<0.01
	6/6/2016	200.7/200.8	1.9E-03	0.021	<0.002	<0.006	<0.006	<0.02	<0.0005	0.02	2.5E-03	<0.005	6.0E-05	0.019	<0.01
	3/4/2016	200.7/200.8	1.0E-03	0.018	<0.002	<0.006	<0.006	<0.02	<0.0025	0.02	2.5E-03	<0.005	<0.0002	0.016	<0.01
	10/27/2015	200.7/200.8	1.2E-03	0.02	<0.002	<0.006	<0.006	<0.02	<0.0005	0.021	<0.005	<0.005	<0.0002	0.017	<0.01
	8/11/2015	200.7/200.8	<0.001	0.02	<0.002	<0.006	<0.006	<0.02	<0.0005	0.019	<0.001	<0.005	<0.0002	0.018	<0.01
	6/1/2015	200.7/200.8	<0.01	0.02	<0.002	<0.006	<0.006	<0.02	<0.005	0.02	<0.01	<0.005	<0.0002	0.017	<0.01
	3/9/2015	200.7/200.8	<0.005	0.02	<0.002	<0.006	<0.006	<0.02	<0.001	0.021	<0.005	<0.005	<0.0002	0.017	<0.01
	11/10/2014	200.7/200.8	0.001	0.024	<0.002	<0.006	0.021	0.058	<0.001	0.038	1.1E-03	<0.005	<0.0002	0.018	0.01
	9/15/2014	200.7/200.8	1.1E-03	0.018	<0.002	<0.006	<0.006	<0.02	<0.001	0.017	1.8E-03	<0.005	<0.0002	0.018	<0.01
	6/3/2014	200.7/200.8	<0.005	0.02	<0.002	<0.006	<0.006	<0.02	<0.001	0.02	<0.005	<0.005	<0.0002	0.016	<0.01
	3/7/2014	200.7/200.8	1.1E-03	0.02	<0.002	<0.006	<0.006	<0.02	<0.001	0.023	<0.001	<0.005	<0.0002	0.018	<0.01
	11/11/2013	200.7/200.8	<0.001	0.019	<0.002	<0.006	<0.006	<0.02	<0.001	0.021	1.2E-03	<0.005	<0.0002	0.016	<0.01
	9/4/2013	200.7/200.8	<0.001	0.019	<0.002	<0.006	<0.006	<0.02	<0.001	0.025	<0.001	<0.005	<0.0002	0.017	<0.01
	6/13/2013	200.7/200.8	<0.001	0.019	<0.002	<0.006	<0.006	<0.02	NA	0.02	<0.001	<0.005	<0.0002	0.017	<0.01
	3/19/2013 [1]	200.7/200.8	<0.0025	0.018	<0.002	<0.006	<0.006	<0.02	<0.005	0.021	<0.0025	<0.005	<0.0002	0.018	<0.01
	8/23/2012	200.7/200.8	<0.0025	0.024	<0.002	<0.006	<0.006	<0.02	<0.005	0.01	<0.0025	<0.005	<0.0002	0.017	<0.01
OW-14	11/15/2016	200.7/200.8	**0.011**	**2.3**	<0.002	<0.006	<0.006	**5.1**	<0.0025	**2.3**	0.018	<0.005	<0.0002	4.1E-03	<0.01
	8/31/2016	200.7/200.8	7.6E-03	**2.1**	<0.002	<0.006	<0.006	**4.9**	1.4E-04	**2.2**	0.014	<0.005	NA	5.9E-03	0.015
	6/6/2016	200.7/200.8	**0.016**	**2.2**	<0.002	<0.006	<0.006	**5.1**	2.0E-04	**2.4**	0.017	<0.005	6.8E-05	7.4E-03	<0.01
	3/4/2016	200.7/200.8	7.8E-03	**1.9**	<0.002	<0.006	<0.006	**4.6**	<0.0025	**2**	6.2E-03	<0.005	5.4E-05	6.0E-03	<0.01
	10/27/2015	200.7/200.8	9.4E-03	**1.9**	<0.002	<0.006	<0.006	**4.6**	<0.0005	**2.1**	<0.02	<0.005	<0.0002	6.7E-03	<0.01
	8/10/2015	200.7/200.8	8.8E-03	**1.9**	<0.002	<0.006	<0.006	**4.6**	<0.0005	**2.2**	<0.01	<0.005	<0.0002	6.8E-03	<0.01
	6/1/2015	200.7/200.8	<0.01	**1.9**	<0.002	<0.006	<0.006	**4.8**	<0.005	**2.2**	<0.01	<0.005	<0.0002	6.7E-03	<0.01
	3/9/2015	200.7/200.8	<0.02	**1.8**	<0.002	<0.006	<0.006	**4.5**	<0.001	**2.1**	<0.02	<0.005	<0.0002	6.5E-03	<0.01
	11/10/2014	200.7/200.8	9.1E-03	**1.8**	<0.002	<0.006	<0.006	**4.6**	<0.001	**2.2**	<0.01	<0.005	<0.0002	7.7E-03	<0.01
	9/15/2014	200.7/200.8	**0.014**	**1.9**	<0.002	<0.006	<0.006	**4.7**	<0.001	**2.3**	0.018	<0.005	<0.0002	7.9E-03	<0.01
	6/3/2014	200.7/200.8	**0.011**	**1.7**	<0.002	<0.006	<0.006	**4.8**	<0.001	**2.3**	0.017	<0.005	<0.0002	7.6E-03	<0.01
	3/7/2014	200.7/200.8	0.01	**1.7**	<0.002	<0.006	<0.006	**4.7**	<0.001	**2.4**	0.01	<0.005	<0.0002	9.7E-03	<0.01
	11/11/2013	200.7/200.8	**0.011**	**1.5**	<0.002	<0.006	<0.006	**4.4**	<0.001	**2.2**	0.015	<0.005	<0.0002	9.4E-03	<0.01
	9/4/2013	200.8	0.01	**1.5**	<0.002	<0.006	<0.006	**4.5**	<0.001	**2.1**	0.011	<0.025	<0.0002	9.3E-03	<0.01
	6/13/2013	200.7/200.8	**0.011**	**1.5**	<0.002	<0.006	<0.006	**4.5**	0.007	**2.4**	0.014	<0.005	<0.0002	0.011	<0.01
	3/19/2013 [1]	200.7/200.8	0.01	**1.3**	<0.002	<0.006	<0.006	**4.4**	<0.005	**2.1**	3.8E-03	<0.005	<0.0002	0.009	<0.01
	8/23/2012	200.7/200.8	**0.012**	**1.2**	<0.002	<0.006	<0.006	**4.2**	<0.005	**2.3**	6.6E-03	<0.005	<0.0002	9.5E-03	<0.01
OW-29	11/15/2016	200.7/200.8	2.3E-03	0.071	<0.002	<0.006	<0.006	0.34	<0.0025	**0.34**	8.8E-03	<0.005	6.0E-05	**0.055**	<0.01
	8/31/2016	200.7/200.8	<0.01	0.065	<0.002	<0.006	<0.006	0.33	<0.0005	**0.28**	6.2E-03	<0.005	NA	**0.053**	<0.01
	6/6/2016	200.7/200.8	3.9E-03	0.072	<0.002	<0.006	<0.006	0.36	<0.0005	**0.33**	6.8E-03	<0.005	6.1E-05	**0.053**	<0.01
	3/4/2016	200.7/200.8	1.5E-03	0.064	<0.002	<0.006	<0.006	0.38	<0.0025	**0.32**	2.9E-03	<0.005	<0.0002	**0.053**	<0.01
	10/27/2015	200.7/200.8	<0.005	0.066	<0.002	<0.006	<0.006	0.33	<0.0005	**0.3**	<0.005	<0.005	<0.0002	**0.051**	<0.01

8.13.2 OW-13, OW-14, OW-29, OW-30

Total Metals Analytical Result Summary

STANDARDS			PARAMETERS											
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.002	0.03	NE
NMED TAP WATER (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.094	6.30E-04	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**													
OW-29	8/11/2015	200.7/200.8	<0.005	0.063	<0.002	<0.006	<0.006	0.25	<0.0005	**0.28**	<0.005	<0.005	<0.0002	**0.054**	<0.01
	6/1/2015	200.7/200.8	<0.01	0.06	<0.002	<0.006	<0.006	0.35	<0.005	**0.25**	<0.01	<0.005	<0.0002	**0.054**	<0.01
	3/9/2015	200.7/200.8	<0.005	0.063	<0.002	<0.006	<0.006	0.41	<0.001	**0.3**	<0.005	<0.005	<0.0002	**0.061**	<0.01
	11/11/2014	200.7/200.8	<0.005	0.063	<0.002	<0.006	<0.006	0.33	<0.001	**0.29**	<0.005	<0.005	<0.0002	**0.055**	<0.01
	9/15/2014	200.7/200.8	<0.01	0.058	<0.002	<0.006	<0.006	0.2	<0.001	**0.26**	<0.01	<0.005	<0.0002	**0.053**	<0.01
	6/2/2014	200.7/200.8	<0.005	0.063	<0.002	<0.006	<0.006	0.37	<0.001	**0.29**	5.5E-03	<0.005	<0.0002	**0.052**	<0.01
	3/7/2014	200.7/200.8	1.4E-03	0.063	<0.002	<0.006	<0.006	0.4	<0.001	**0.3**	<0.005	<0.005	<0.0002	**0.056**	<0.01
	11/11/2013	200.7/200.8	1.8E-03	0.061	<0.002	<0.006	<0.006	0.38	<0.001	**0.28**	4.2E-03	<0.005	<0.0002	**0.053**	<0.01
	9/4/2013	200.7/200.8	<0.001	0.061	<0.002	<0.006	<0.006	0.34	<0.001	0.028	2.7E-03	<0.005	<0.0002	**0.056**	0.018
	6/13/2013	200.7/200.8	1.3E-03	0.065	<0.002	<0.006	<0.006	0.52	NA	**0.32**	3.3E-03	<0.005	<0.0002	**0.056**	<0.01
	3/19/2013 [1]	200.7/200.8	<0.0025	0.059	<0.002	<0.006	<0.006	0.47	<0.005	**0.29**	<0.0025	<0.005	<0.0002	**0.057**	<0.01
	8/23/2012	200.7/200.8	<0.0025	0.058	<0.002	<0.006	<0.006	0.16	<0.005	**0.25**	<0.0025	<0.005	<0.0002	**0.055**	<0.01
OW-30	11/14/2016	200.7/200.8	3.8E-03	0.11	<0.002	<0.006	<0.006	0.095	2.8E-04	0.038	6.1E-03	<0.005	8.8E-05	**0.046**	<0.01
	8/31/2016	200.7/200.8	<0.01	0.096	<0.002	<0.006	<0.006	0.071	2.5E-04	0.035	6.7E-03	<0.005	NA	**0.048**	<0.01
	6/6/2016	200.7/200.8	4.2E-03	0.11	<0.002	<0.006	<0.006	0.11	3.0E-04	0.045	9.0E-03	<0.005	6.2E-05	**0.046**	<0.01
	3/8/2016	200.7/200.8	<0.005	0.092	<0.002	<0.006	<0.006	0.052	<0.0025	0.034	2.6E-03	<0.005	<0.0002	**0.047**	<0.01
	10/27/2015	200.7/200.8	<0.005	0.097	<0.002	<0.006	<0.006	0.12	<0.0005	0.041	<0.005	<0.005	<0.0002	**0.047**	<0.01
	8/10/2015	200.7/200.8	<0.005	0.091	<0.005	<0.006	<0.006	0.073	<0.0005	0.037	<0.005	<0.005	<0.0002	**0.048**	<0.01
	6/2/2015	200.7/200.8	<0.01	0.088	<0.002	<0.006	<0.006	0.065	<0.005	0.036	<0.01	<0.005	<0.0002	**0.05**	<0.01
	3/9/2015	200.7/200.8	<0.01	0.09	<0.002	<0.006	<0.006	0.089	<0.001	0.037	<0.01	<0.005	<0.0003	**0.056**	<0.01
	11/11/2014	200.7/200.8	<0.005	0.093	<0.002	<0.006	<0.006	0.18	<0.001	0.036	<0.005	<0.005	<0.0002	**0.05**	<0.01
	9/17/2014	200.7/200.8	1.5E-03	0.087	<0.002	<0.006	<0.006	0.076	<0.001	0.031	3.4E-03	<0.005	<0.0002	**0.051**	<0.01
	6/2/2014	200.7/200.8	<0.005	0.56	<0.002	0.014	<0.006	**5.8**	6.4E-03	**0.35**	5.5E-03	<0.005	<0.0002	**0.048**	0.015
	3/7/2014	200.7/200.8	3.3E-03	**1.3**	<0.002	0.031	7.2E-03	**13**	0.013	**0.71**	<0.005	<0.005	<0.0002	**0.054**	0.029
	11/11/2013	200.7/200.8	1.8E-03	0.11	<0.002	<0.006	<0.006	0.47	<0.001	0.047	4.1E-03	<0.005	<0.0002	**0.053**	<0.01
	9/4/2013	200.7/200.8	1.2E-03	0.081	<0.002	<0.006	<0.006	0.051	<0.001	0.025	2.9E-03	<0.005	<0.0002	**0.055**	<0.01
	6/17/2013	200.7/200.8	1.3E-03	0.079	<0.002	<0.006	<0.006	0.055	<0.005	0.026	2.7E-03	<0.005	<0.0002	**0.054**	<0.01
	3/19/2013 [1]	200.7/200.8	<0.0025	0.078	<0.002	<0.006	<0.006	0.052	<0.005	0.02	<0.0025	<0.005	<0.0002	**0.057**	<0.01
	8/23/2012	200.7/200.8	<0.0025	0.078	<0.002	<0.006	<0.006	0.058	<0.005	0.018	<0.0025	<0.005	<0.0002	**0.056**	<0.01

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) Additon of WQCC Metals per NMED's Comment 12 from "Approval with Modifications Annual Ground Water Monitoring Report, Rev 1, dated 12/12/12", to monitor upgradient wells.

8.13.3 OW-13, OW-14, OW-29, OW-30

Dissolved Metals Analytical Result Summary

			PARAMETERS										
STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.03	NE
NMED TAP WATER (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.094	0.06	6
Well ID	DATE SAMPLED	METHOD												
OW-13	11/15/2016	200.7/200.8	1.E-03	0.02	<0.002	<0.006	<0.006	<0.02	<0.0005	0.021	2.6E-03	<0.005	0.017	<0.01
	8/31/2016	200.7/200.8	2.E-03	0.02	<0.002	<0.006	<0.006	<0.02	<0.0025	0.021	0.002	<0.005	0.017	0.042
	6/6/2016	200.7/200.8	2.E-03	0.02	<0.002	<0.006	<0.006	<0.02	<0.0005	0.02	3.5E-03	<0.005	0.018	0.014
	3/4/2016	200.7/200.8	1.2E-03	0.018	<0.002	<0.006	5.3E-03	<0.02	<0.0005	0.019	1.1E-03	<0.005	0.017	9.3E-03
	10/27/2015	200.7/200.8	<0.005	0.021	<0.002	<0.006	<0.006	<0.02	<0.0005	0.023	<0.005	<0.005	0.016	<0.01
	8/11/2015	200.7/200.8	<0.005	0.018	<0.002	<0.006	<0.006	<0.02	<0.0025	0.018	<0.005	<0.005	0.017	<0.01
	6/1/2015	200.7/200.8	<0.01	0.02	<0.002	<0.006	<0.006	<0.02	<0.1	0.021	<0.01	<0.005	0.016	<0.01
	3/9/2015	200.7/200.8	<0.005	0.02	<0.002	<0.006	<0.006	<0.02	<0.001	0.022	<0.005	<0.005	0.017	<0.01
	11/10/2014	200.7/200.8	1.E-03	0.019	<0.002	<0.006	<0.006	<0.02	<0.01	0.022	<0.001	<0.005	0.016	0.063
	9/15/2014	200.7/200.8	1.5E-03	0.018	<0.002	<0.006	<0.006	<0.02	<0.001	0.018	2.6E-03	<0.005	0.017	<0.01
	6/3/2014	200.7/200.8	1.2E-03	0.017	<0.002	<0.006	<0.006	<0.02	<0.005	0.017	2.2E-03	<0.005	0.015	<0.01
	3/7/2014	200.7/200.8	<0.001	0.019	<0.002	<0.006	<0.006	<0.02	<0.001	0.02	<0.001	<0.005	0.018	0.017
	11/11/2013	200.7/200.8	1.2E-03	0.02	<0.002	<0.006	<0.006	<0.02	<0.001	0.021	0.002	<0.005	0.016	0.014
	9/4/2013	200.7/200.8	<0.005	0.019	<0.002	<0.006	<0.006	<0.02	<0.005	0.024	<0.005	<0.005	0.017	<0.01
	6/13/2013	200.7/200.8	1.1E-03	0.019	<0.002	<0.006	<0.006	<0.02	<0.001	0.021	2.4E-03	<0.005	0.017	0.048
	3/19/2013 [1]	200.7/200.8	<0.001	0.018	<0.002	<0.006	<0.006	<0.02	<0.005	0.019	<0.001	<0.005	0.017	<0.01
	8/23/2012	200.7/200.8	<0.001	0.022	<0.002	<0.006	<0.006	<0.02	<0.005	0.011	<0.001	<0.005	0.016	0.016
OW-14	11/15/2016	200.7/200.8	9.9E-03	**2.2**	<0.002	<0.006	<0.006	**4.7**	<0.0005	**2.1**	0.015	<0.005	4.8E-03	<0.01
	8/31/2016	200.7/200.8	8.6E-03	**2.2**	<0.002	<0.006	<0.006	**4.9**	<0.0005	**2.2**	0.012	<0.005	5.4E-03	0.028
	6/6/2016	200.7/200.8	**0.012**	**2.2**	<0.002	<0.006	<0.006	**4.9**	<0.0005	**2.3**	0.022	<0.005	6.8E-03	<0.01
	3/4/2016	200.7/200.8	8.2E-03	**1.9**	<0.002	<0.006	<0.006	**4.3**	1.2E-04	**2.1**	4.8E-03	<0.005	6.5E-03	0.01
	10/27/2015	200.7/200.8	**0.011**	**2.1**	<0.002	<0.006	<0.006	**4.7**	<0.0005	**2.3**	0.016	<0.005	6.5E-03	<0.01
	8/10/2015	200.7/200.8	9.1E-03	**1.9**	<0.002	6.3E-03	<0.006	**4.5**	<0.0025	**2.0**	<0.01	<0.005	0.006	<0.01
	6/1/2015	200.7/200.8	<0.01	**1.9**	<0.002	<0.006	<0.006	**5.0**	<0.01	**2.3**	<0.01	<0.005	<0.01	0.12
	3/9/2015	200.7/200.8	<0.02	**1.9**	<0.002	<0.006	<0.006	**4.7**	<0.001	**2.2**	<0.02	<0.005	6.7E-03	<0.01
	11/10/2014	200.7/200.8	<0.01	**1.8**	<0.002	<0.006	<0.006	**4.5**	<0.01	**2.2**	<0.01	<0.005	<0.01	0.036
	9/15/2014	200.7/200.8	**0.013**	**1.8**	<0.002	<0.006	<0.006	**4.5**	<0.001	**2.2**	0.017	<0.005	7.1E-03	<0.01
	6/3/2014	200.7/200.8	**0.011**	**1.7**	<0.002	<0.006	<0.006	**4.6**	<0.005	**2.3**	0.018	<0.005	8.3E-03	0.017
	3/7/2014	200.7/200.8	8.4E-03	**1.6**	<0.002	<0.006	<0.006	**4.2**	<0.001	**2.1**	<0.005	<0.005	9.7E-03	<0.01
	11/11/2013	200.7/200.8	**0.012**	**1.6**	<0.002	<0.006	<0.006	**4.6**	<0.001	**2.3**	0.015	<0.005	9.3E-03	0.021
	9/4/2013	200.7/200.8	0.01	**1.5**	<0.002	<0.006	<0.006	**4.5**	<0.001	**2.1**	0.011	<0.025	9.3E-03	<0.01
	6/13/2013	200.7/200.8	**0.012**	**1.4**	<0.002	<0.006	<0.006	**4.6**	<0.001	**2.3**	0.017	<0.005	0.011	<0.01
	3/19/2013 [1]	200.7/200.8	9.3E-03	**1.3**	<0.002	<0.006	<0.006	**4.1**	<0.005	**2.1**	4.5E-03	<0.005	8.7E-03	<0.01
	8/23/2012	200.7/200.8	0.01	**1.1**	<0.002	<0.006	<0.006	**4.4**	<0.005	**2.3**	6.7E-03	<0.005	9.1E-03	0.039

8.13.3 OW-13, OW-14, OW-29, OW-30

Dissolved Metals Analytical Result Summary

			PARAMETERS										
STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.03	NE
NMED TAP WATER (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.094	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**												
OW-29	11/14/2016	200.7/200.8	2.7E-03	0.07	<0.002	<0.006	<0.006	0.32	<0.0005	**0.34**	7.6E-03	<0.005	**0.053**	<0.01
	8/31/2016	200.7/200.8	2.6E-03	0.068	<0.002	<0.006	<0.006	0.27	<0.0025	**0.3**	6.5E-03	<0.005	**0.054**	0.028
	6/6/2016	200.7/200.8	3.2E-03	0.07	<0.002	<0.006	<0.006	0.31	<0.0005	**0.33**	8.0E-03	<0.005	**0.054**	<0.01
	3/4/2016	200.7/200.8	1.5E-03	0.063	<0.002	<0.006	<0.006	0.34	<0.0005	**0.31**	3.1E-03	<0.005	**0.049**	0.015
	10/27/2015	200.7/200.8	<0.005	0.069	<0.002	<0.006	<0.006	0.27	<0.0005	**0.32**	<0.01	<0.005	**0.054**	<0.01
	8/11/2015	200.7/200.8	<0.005	0.059	<0.002	<0.006	<0.006	0.24	<0.0025	**0.27**	<0.005	<0.005	**0.053**	0.012
	6/1/2015	200.7/200.8	<0.01	0.064	<0.002	<0.006	<0.006	0.34	<0.01	**0.29**	<0.01	<0.005	**0.053**	<0.01
	3/9/2015	200.7/200.8	<0.001	0.063	<0.002	<0.006	<0.006	0.31	<0.001	**0.31**	<0.01	<0.005	**0.053**	<0.01
	11/11/2014	200.7/200.8	<0.01	0.061	<0.002	<0.006	<0.006	0.23	<0.01	**0.28**	<0.01	<0.005	**0.054**	0.029
	9/15/2014	200.7/200.8	<0.01	0.061	<0.002	<0.006	<0.006	0.18	<0.001	**0.26**	<0.01	<0.005	**0.054**	<0.01
	6/2/2014	200.7/200.8	<0.005	0.057	<0.002	<0.006	<0.006	0.2	<0.005	**0.28**	6.4E-03	<0.005	**0.054**	<0.01
	3/7/2014	200.7/200.8	<0.005	0.059	<0.002	<0.006	<0.006	0.28	<0.001	**0.29**	<0.005	<0.005	**0.053**	<0.01
	11/11/2013	200.7/200.8	1.9E-03	0.063	<0.002	<0.006	<0.006	0.33	<0.001	**0.3**	5.2E-03	<0.005	**0.053**	0.028
	9/4/2013	200.7/200.8	<0.005	0.062	<0.002	<0.006	<0.006	0.31	<0.005	**0.28**	<0.005	<0.005	**0.06**	<0.01
	6/13/2013	200.7/200.8	1.8E-03	0.06	<0.002	<0.006	<0.006	0.45	<0.001	**0.31**	5.5E-03	<0.005	**0.055**	0.017
	3/19/2013 [1]	200.7/200.8	0.001	0.054	<0.002	<0.006	<0.006	0.34	<0.005	**0.27**	1.1E-03	<0.005	**0.054**	<0.01
	8/23/2012	200.7/200.8	0.001	0.056	<0.002	<0.006	<0.006	0.046	<0.005	**0.24**	1.9E-03	<0.005	**0.053**	<0.01
OW-30	11/14/2016	200.7/200.8	3.2E-03	0.1	<0.002	<0.006	<0.006	0.087	2.8E-04	0.041	9.4E-03	<0.005	**0.044**	<0.01
	8/31/2016	200.7/200.8	3.1E-03	0.1	<0.002	<0.006	<0.006	0.071	1.9E-04	0.038	7.5E-03	<0.005	**0.046**	0.044
	6/6/2016	200.7/200.8	3.6E-03	0.1	<0.002	<0.006	<0.006	0.062	2.0E-04	0.043	9.5E-03	<0.005	**0.047**	<0.01
	3/8/2016	200.7/200.8	1.9E-03	0.091	<0.002	<0.006	<0.006	0.061	2.2E-04	0.037	4.3E-03	<0.005	**0.049**	<0.01
	10/27/2015	200.7/200.8	<0.005	0.1	<0.002	<0.006	8.8E-03	0.064	<0.01	0.041	7.7E-03	<0.005	**0.045**	<0.01
	8/10/2015	200.7/200.8	<0.005	0.088	<0.002	<0.006	<0.006	0.071	<0.0025	0.037	<0.005	<0.005	**0.048**	0.011
	6/2/2015	200.7/200.8	<0.01	0.082	<0.002	<0.006	<0.006	0.067	<0.01	0.031	<0.01	<0.005	**0.049**	0.017
	3/9/2015	200.7/200.8	<0.01	0.09	<0.002	<0.006	<0.006	0.064	<0.001	0.037	<0.01	<0.005	**0.048**	0.015
	11/11/2014	200.7/200.8	<0.01	0.086	<0.002	<0.006	<0.006	0.051	<0.01	0.034	<0.01	<0.005	**0.05**	0.029
	9/17/2014	200.7/200.8	<0.005	0.086	<0.002	<0.006	<0.006	0.067	<0.005	0.033	<0.005	<0.005	**0.049**	0.012
	6/2/2014	200.7/200.8	<0.005	0.17	<0.002	<0.006	<0.006	**2.3**	<0.005	0.082	<0.01	<0.005	**0.051**	<0.01
	3/7/2014	200.7/200.8	<0.005	0.29	<0.002	0.014	<0.006	**7.2**	2.3E-03	0.18	<0.005	<0.005	**0.05**	0.012
	11/11/2013	200.7/200.8	1.7E-03	0.084	<0.002	<0.006	<0.006	0.06	<0.001	0.031	4.6E-03	<0.005	**0.05**	0.022
	9/4/2013	200.7/200.8	<0.005	0.08	<0.002	<0.006	<0.006	0.04	<0.005	0.028	<0.005	<0.005	**0.059**	<0.01
	6/13/2013	200.7/200.8	1.9E-03	0.078	<0.002	<0.006	<0.006	0.048	<0.005	0.025	5.5E-03	<0.005	**0.054**	0.01
	3/19/2013 [1]	200.7/200.8	1.1E-03	0.073	<0.002	<0.006	<0.006	0.051	<0.005	0.023	2.3E-03	<0.005	**0.054**	<0.01
	8/23/2012	200.7/200.8	0.001	0.074	<0.002	<0.006	<0.006	<0.02	<0.005	0.015	1.7E-03	<0.005	**0.052**	0.036

8.13.3 OW-13, OW-14, OW-29, OW-30

Dissolved Metals Analytical Result Summary

STANDARDS	PARAMETERS											
	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103	0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL	**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.03	NE
NMED TAP WATER (JUL 2015)	0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)	5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.094	0.06	6
Well ID / **DATE SAMPLED** / **METHOD**												

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) Additon of WQCC Metals per NMED's Comment 12 from "Approval with Modifications Annual Ground Water Monitoring Report, Rev 1, dated 12/12/12", to monitor upgradient wells.

8.13.4 OW-13, OW-14, OW-29, OW-30

Volatile Organic Compound Analytical Result Summary

			PARAMETERS												
		STANDARDS	1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	1,2-Dichloroethane (EDC) (mg/L)	1,2-Dibromethane (EDB) [1] (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	Acetone (mg/L)	Chloroethane (mg/L)	1,1-Dichloroethane (mg/L)	Isopropyl benzene (mg/L)	Methylene Chloride (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	Sec-butyl benzene (mg/L)
		WQCC 20NMAC 6.2.3103	NE	NE	0.01	0.00	NE	NE	NE	NE	**0.025**	NE	0.1	NE	NE	NE
		40 CFR 141.62 MCL	NE	NE	**0.005**	**0.00005**	NE	NE	NE	NE	NE	NE	**0.005**	NE	NE	NE
		NMED TAP WATER (JUL 2015)	NE	NE	0.00171	0.0000746	**0.00165**	NE	**14.1**	**20.9**	0.0275	**0.447**	0.106	NE	NE	NE
		EPA RSL for Tap Water (MAY 2016)	**0.015**	**0.12**	0.017	0.0000075	1.7E-04	**1.1E-03**	14	21	2.8E-03	0.45	0.011	**1.0**	**0.66**	**2.0**
Well ID	**DATE SAMPLED**	**METHOD**														
OW-13	11/15/2016	8260B/8011(504.1EDB)	<0.001		7.6E-04	<0.01	<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	8/31/2016	8260B	<0.001		7.9E-04	<0.001	<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	6/6/2016	8260B	<0.001		7.5E-04	<0.001	<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	3/4/2016	8260B	<0.001		8.0E-04	<0.001	<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	10/27/2015	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	8/11/2015	8260B	<0.001		<0.001		<0.002	<0.004			<0.004	<0.001		<0.003	<0.001	<0.001
	6/1/2015	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	3/9/2015	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	11/10/2014	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	9/15/2014	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	6/3/2014	8260B	<0.001		<0.001		<0.002	<0.004			<0.004	<0.001		<0.003	<0.001	<0.001
	3/7/2014	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	11/11/2013	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	9/4/2013	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	6/13/2013	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	3/19/2013	8260B	<0.005		<0.005		<0.01	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	11/27/2012	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	8/23/2012	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	6/14/2012	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	3/21/2012	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	12/13/2011	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	10/25/2011	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	6/20/2011	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	2/24/2011	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	11/8/2010	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	9/22/2010	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	6/7/2010	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	3/25/2010	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
OW-14	11/15/2016	8260B/8011(504.1EDB)	8.4E-03	1.5E-03	3.4E-03		**0.02**	**0.03**			<0.01	0.01	<0.03	3.4E-03	0.013	4.1E-03
	9/1/2016	8260B	7.1E-03	8.2E-04	<0.005		**0.018**	**0.034**			<0.005	8.5E-03	<0.015	1.3E-03	0.011	2.2E-03
	6/6/2016	8260B	0.008	1.7E-03	<0.01		**0.019**	**0.033**			3.3E-03	9.6E-03	<0.003	<0.03	0.011	3.1E-03
	3/4/2016	8260B	<0.05		<0.05		**0.017**	**0.03**			<0.05	<0.05	**0.011**	<0.15	<0.05	<0.05
	10/27/2015	8260B	<0.02		<0.02		<0.04	<0.08			<0.02	<0.02		<0.06	<0.02	<0.02
	8/10/2015	8260B	<0.01		<0.01		<0.02	<0.04			<0.04	<0.01		<0.03	<0.01	<0.01
	6/1/2015	8260B	<0.02		<0.02		<0.04	<0.08			<0.02	<0.02		<0.06	<0.02	<0.02
	3/9/2015	8260B	<0.02		<0.02		<0.04	<0.08			<0.02	<0.02		<0.06	<0.02	<0.02

8.13.4 OW-13, OW-14, OW-29, OW-30

Volatile Organic Compound Analytical Result Summary

STANDARDS			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	1,2-Dichloroethane (EDC) (mg/L)	1,2-Dibromethane (EDB) [1] (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	Acetone (mg/L)	Chloroethane (mg/L)	1,1-Dichloroethane (mg/L)	Isopropyl benzene (mg/L)	Methylene Chloride (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	Sec-butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	0.01	0.00	NE	NE	NE	NE	**0.025**	NE	0.1	NE	NE	NE
40 CFR 141.62 MCL			NE	NE	**0.005**	**0.00005**	NE	NE	NE	NE	NE	NE	**0.005**	NE	NE	NE
NMED TAP WATER (JUL 2015)			NE	NE	0.00171	0.0000746	**0.00165**	NE	**14.1**	**20.9**	0.0275	**0.447**	0.106	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			**0.015**	**0.12**	0.017	0.0000075	1.7E-04	**1.1E-03**	14	21	2.8E-03	0.45	0.011	**1.0**	**0.66**	**2.0**
Well ID	**DATE SAMPLED**	**METHOD**														
OW-14	11/10/2014	8260B	<0.01		<0.01		<0.02	**0.044**			<0.01	<0.01		<0.03	<0.01	<0.01
	9/15/2014	8260B/8270C	<0.02		<0.02		<0.04	**0.016**			<0.02	<0.02		<0.06	<0.02	<0.02
	6/3/2014	8260B	<0.02		<0.02		<0.04	<0.08			<0.08	<0.02		<0.06	<0.02	<0.02
	3/7/2014	8260B	<0.01		<0.01		<0.02	<0.04			<0.04	<0.01		<0.03	<0.01	<0.01
	11/11/2013	8260B	<0.005		<0.005		<0.01	**0.027**			<0.005	6.6E-03		<0.015	<0.005	<0.005
	9/4/2013	8260B	<0.005		<0.005		<0.01	**0.024**			<0.005	0.006		<0.015	<0.005	<0.005
	6/13/2013	8260B	<0.01		<0.01		<0.02	<0.04			<0.01	<0.01		<0.03	<0.01	<0.01
	3/19/2013	8260B	<0.01		<0.01		<0.02	<0.04			<0.01	<0.01		<0.03	<0.01	<0.01
	11/27/2012	8260B	<0.01		<0.01		<0.02	<0.04			<0.01	<0.01		<0.03	<0.01	<0.01
	8/23/2012	8260B	<0.01		<0.01		<0.02	<0.04			<0.01	<0.01		<0.03	<0.01	<0.01
	6/14/2012	8260B	<0.01		<0.01		<0.02	<0.04			<0.01	<0.01		<0.01	<0.01	<0.01
	3/21/2012	8260B	<0.01		<0.01		<0.02	<0.04			<0.01	<0.01		<0.01	<0.01	<0.01
	12/13/2011	8260B	<0.005		<0.005		<0.01	**0.021**			<0.005	7.1E-03		<0.005	<0.005	<0.005
	10/24/2011	8260B	<0.005		<0.005		<0.01	**0.022**			<0.005	8.2E-03		<0.005	<0.005	<0.005
	6/20/2011	8260B	1.1E-03		1.7E-03		**2.1E-03**	**0.02**			1.2E-03	6.8E-03		<0.001	2.1E-03	2.4E-03
	2/24/2011	8260B	1.3E-03		1.6E-03		<0.002	**0.019**			<0.001	4.8E-03		<0.001	1.3E-03	2.7E-03
	11/8/2010	8260B	1.2E-03		1.5E-03		<0.002	**0.022**			<0.001	3.7E-03		<0.001	<0.001	2.7E-03
	9/22/2010	8260B	<0.001		2.2E-03		<0.002	**0.022**			<0.001	2.9E-03		<0.001	<0.001	2.8E-03
	6/7/2010	8260B	1.1E-03		1.5E-03		<0.002	**0.02**			<0.001	2.6E-03		<0.001	<0.001	2.4E-03
	3/24/2010	8260B	<0.005		<0.005		<0.01	<0.02			<0.005	<0.005		<0.005	<0.005	<0.005
OW-29	11/15/2016	8260B/8011(504.1EDB)	<0.005		1.8E-03		<0.01	<0.02			<0.005	<0.005	<0.015	<0.015	<0.005	<0.005
	8/31/2016	8260B	<0.001		6.5E-04		<0.002	2.6E-04			<0.001	<0.001	<0.003	<0.003	<0.001	<0.001
	6/6/2016	8260B	<0.005		<0.005		<0.01	<0.001			<0.005	<0.005	<0.015	<0.015	<0.005	<0.005
	3/4/2016	8260B	<0.005		1.6E-04		<0.01	<0.02			<0.005	<0.005	1.1E-03	<0.015	<0.005	<0.005
	10/27/2015	8260B	<0.005		<0.005		<0.01	<0.02			<0.005	<0.005		<0.015	<0.005	<0.005
	8/11/2015	8260B	<0.005		<0.005		<0.01	<0.02			<0.005	<0.005		<0.015	<0.005	<0.005
	6/1/2015	8260B	<0.005		<0.005		<0.01	<0.02			<0.005	<0.005		<0.015	<0.005	<0.005
	3/9/2015	8260B	<0.001		<0.001		<0.002	<0.004			<0.004	<0.001		<0.003	<0.001	<0.001
	11/11/2014	8260B	<0.005		<0.005		<0.01	<0.02			<0.005	<0.005		<0.015	<0.005	<0.005
	9/15/2014	8260B	<0.005		<0.005		<0.01	<0.02			<0.005	<0.005		<0.015	<0.005	<0.005
	6/2/2014	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	3/7/2014	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	11/11/2013	8260B	<0.002		<0.002		<0.004	<0.008			<0.002	<0.002		<0.006	<0.002	<0.002

8.13.4 OW-13, OW-14, OW-29, OW-30

Volatile Organic Compound Analytical Result Summary

STANDARDS			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	1,2-Dichloroethane (EDC) (mg/L)	1,2-Dibromethane (EDB) [1] (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	Acetone (mg/L)	Chloroethane (mg/L)	1,1-Dichloroethane (mg/L)	Isopropyl benzene (mg/L)	Methylene Chloride (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	Sec-butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	0.01	0.00	NE	NE	NE	NE	**0.025**	NE	0.1	NE	NE	NE
40 CFR 141.62 MCL			NE	NE	**0.005**	**0.00005**	NE	NE	NE	NE	NE	NE	**0.005**	NE	NE	NE
NMED TAP WATER (JUL 2015)			NE	NE	0.00171	0.0000746	**0.00165**	NE	**14.1**	**20.9**	0.0275	**0.447**	0.106	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			**0.015**	**0.12**	0.017	0.0000075	1.7E-04	**1.1E-03**	14	21	2.8E-03	0.45	0.011	**1.0**	**0.66**	**2.0**
Well ID	**DATE SAMPLED**	**METHOD**														
OW-29	9/4/2013	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	6/13/2013	8260B	<0.001		<0.001		<0.002	<0.004			<0.004	<0.001		<0.003	<0.001	<0.001
	3/19/2013	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	11/27/2012	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	8/23/2012	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	6/13/2012	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	3/21/2012	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	12/14/2011	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	10/24/2011	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	6/20/2011	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	2/24/2011	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	11/9/2010	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	9/22/2010	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	6/7/2010	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	3/25/2010	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
OW-30	11/14/2016	8260B	<0.005		1.6E-03		<0.01	<0.02	<0.05	<0.01	<0.005	<0.005	<0.015	<0.015	<0.005	<0.005
	8/31/2016	8260B	1.8E-04		3.2E-04		<0.002	<0.004	<0.01	<0.002	<0.001	<0.001	<0.003	<0.003	<0.001	3.7E-04
	6/6/2016	8260B	<0.005		<0.005		<0.01	<0.02	<0.01	<0.01	<0.005	<0.005	<0.005	<0.015	<0.005	6.4E-04
	3/8/2016	8260B	<0.002		0.005		<0.004	<0.008	0.003	<0.004	<0.002	<0.002	6.3E-04	<0.006	<0.002	<0.002
	10/27/2015	8260B	<0.005		<0.005		<0.01	<0.02		<0.01	<0.005	<0.005		<0.015	<0.005	<0.005
	8/10/2015	8260B	<0.001		<0.001		<0.002	<0.004		<0.002	<0.004	<0.001		<0.003	<0.001	<0.001
	6/2/2015	8260B	<0.005		<0.005		<0.01	<0.02		<0.01	<0.005	<0.005		<0.015	<0.005	<0.005
	3/9/2015	8260B	<0.001		<0.001		<0.002	<0.004		<0.002	<0.004	<0.001		<0.003	<0.001	<0.001
	11/11/2014	8260B	<0.005		<0.005		<0.01	<0.02		<0.01	<0.005	<0.005		<0.015	<0.005	<0.005
	9/17/2014	8260B	<0.001		<0.001		<0.002	<0.004		<0.002	<0.004	<0.001		<0.003	<0.001	<0.001
	6/2/2014	8260B	<0.001		<0.001		<0.002	<0.004		<0.002	<0.001	<0.001		<0.003	<0.001	<0.001
	3/7/2014	8260B	<0.001		<0.001		<0.002	<0.004		<0.002	<0.001	<0.001		<0.003	<0.001	<0.001
	11/11/2013	8260B	<0.001		<0.001		<0.002	<0.004		4.7E-03	<0.001	<0.001		<0.003	<0.001	<0.001
	9/4/2013	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	6/17/2013	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	3/19/2013	8260B	<0.005		<0.005		<0.01	<0.02			<0.02	<0.005		<0.015	<0.005	<0.005
	11/27/2012	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001
	8/23/2012	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.003	<0.001	<0.001

8.13.4 OW-13, OW-14, OW-29, OW-30

Volatile Organic Compound Analytical Result Summary

STANDARDS			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	1,2-Dichloro ethane (EDC) (mg/L)	1,2-Dibro methane (EDB) [1] (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	Acetone (mg/L)	Chloro ethane (mg/L)	1,1-Dichloro ethane (mg/L)	Isopropyl benzene (mg/L)	Methylene Chloride (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	Sec-butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	0.01	0.00	NE	NE	NE	NE	**0.025**	NE	0.1	NE	NE	NE
40 CFR 141.62 MCL			NE	NE	**0.005**	**0.00005**	NE	NE	NE	NE	NE	NE	**0.005**	NE	NE	NE
NMED TAP WATER (JUL 2015)			NE	NE	0.00171	0.0000746	**0.00165**	NE	**14.1**	**20.9**	0.0275	**0.447**	0.106	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			**0.015**	**0.12**	0.017	0.0000075	1.7E-04	**1.1E-03**	14	21	2.8E-03	0.45	0.011	**1.0**	**0.66**	**2.0**
Well ID	**DATE SAMPLED**	**METHOD**														
	6/14/2012	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	3/21/2012	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	12/15/2011	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	10/24/2011	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	6/20/2011	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	2/24/2011	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	11/8/2010	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	9/27/2010	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	6/4/2010	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001
	3/24/2010	8260B	<0.001		<0.001		<0.002	<0.004			<0.001	<0.001		<0.001	<0.001	<0.001

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) New requirement per directive from NMED "Approval with Modifications", dated May 18, 2016.

8.14 STP1-NW

BTEX, General Chemistry Analytical Result Summary

STANDARDS			PARAMETERS												
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE	**1.6**	**250.0**	NE	**10**	**600.0**	NE	NE	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE	NE	NE	**10**	10	NE	NE	NE	NE
NMED Tap Water (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**	1.2	NE	1.97	31.6	NE	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			4.5E-04	0.11	0.0015	0.019	0.014	0.08	NE	0.2	3.2	NE	NE	NE	NE
Well ID	**DATE SAMPLED**	**METHOD**													
STP1-NW	11/14/2016	8260B	<0.001	<0.001	<0.001	<0.0015	3.6E-04	<0.5	**2000**	<2.0	**24**	140	<1.0	<0.05	<5.0
	9/9/2016	8260B	<0.001	<0.001	<0.001	<0.0015	3.0E-04	<0.5	**1800**	**26**	**26**	150	<1.0	<0.05	<5.0
	6/7/2016	8260B	<0.001	<0.001	<0.001	<0.0015	6.0E-04	0.058	**2400**	**20**	**20**	150	<1.0	<0.05	<5.0
	3/2/2016	8260B	<0.001	<0.001	<0.001	<0.0015	4.7E-04	NA	NA	NA	NA	NA	<1.0	<0.05	<5.0
	10/29/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	0.26	**2100**	**21**	**21**	130	<1.0	<0.05	<5.0
	8/11/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	NA	NA	NA	NA	NA	<1.0	<0.05	<5.0
	6/2/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	<0.5	2100	**25**	**25**	130	<1.0	<0.05	<5.0
	3/10/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	<0.1	**2400**	**22**	**22**	150	<1.0	<0.05	<5.0
	11/18/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	0.29	**1800**	<2.0	**18**	120	<1.0	<0.05	<5.0
	9/17/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	0.26	**1800**	<2.0	**18**	120	<1.0	<0.05	<5.0
	6/16/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	0.85	**1000**	**15**	**15**	160	<1.0	<0.05	<5.0

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.14.1 STP1-NW

Total Metals Analytical Result Summary

STANDARDS			PARAMETERS											
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.002	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.00092	NE	0.8	14	0.015	0.43	0.1	0.094	6.3E-04	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**													
STP1-NW	11/14/2016	200.7/200.8	**0.011**	0.24	<0.002	9.6E-03	0.0049	**11**	**0.016**	**0.31**	0.021	0.0079	0.00014	0.027	0.29
	9/9/2016	200.7/200.8	7.0E-03	0.18	<0.002	<0.006	<0.006	**1.4**	1.3E-03	0.029	0.025	<0.005	1.0E-04	0.023	0.026
	6/7/2016	200.7/200.8	<0.05	0.2	<0.002	<0.006	<0.006	**3**	3.1E-03	0.056	0.021	<0.005	7.5E-05	0.026	0.053
	3/2/2016	200.7/200.8	<0.02	0.19	<0.002	2.8E-03	<0.006	**3.6**	4.4E-03	0.11	0.011	<0.05	<0.0002	0.025	0.087
	10/29/2015	200.7/200.8	7.5E-03	0.13	<0.002	<0.006	<0.006	0.15	5.5E-03	0.032	0.019	<0.005	<0.0002	0.023	0.091
	8/11/2015	200.7/200.8	<0.01	0.22	<0.002	<0.006	<0.006	**6.1**	6.8E-03	0.11	0.018	<0.005	<0.0002	0.025	0.12
	6/2/2015	200.7/200.8	<0.01	0.24	<0.002	6.6E-03	<0.006	**3.2**	<0.005	0.095	<0.02	<0.005	<0.0002	0.022	0.061
	3/10/2015	200.7/200.8	<0.01	0.23	<0.002	<0.006	<0.006	**4.3**	<0.01	0.075	0.026	<0.005	<0.0002	0.02	0.089
	11/18/2014	200.7/200.8	<0.01	0.13	<0.002	<0.006	<0.006	0.15	<0.001	0.032	0.024	<0.005	<0.0002	0.03	0.032
	9/17/2014	200.7/200.8	<0.01	0.21	<0.002	0.0092	<0.006	**6.5**	9.8E-03	0.15	0.022	<0.005	<0.0002	0.029	0.23
	6/16/2014	200.7/200.8	<0.01	0.11	<0.002	<0.006	<0.006	0.42	<0.01	0.055	0.028	<0.005	<0.0002	0.065	0.26

DEFINITIONS
NE = Not established
NA = Not analyzed
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.14.2 STP1-NW

Dissolved Metals Analytical Result Summary

STANDARDS			PARAMETERS										
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**												
STP1-NW	11/14/2016	200.7/200.8	8.9E-03	0.13	<0.002	<0.006	<0.006	0.2	3.9E-04	8.6E-03	0.033	<0.005	0.026	0.01
	9/9/2016	200.7/200.8	8.4E-03	0.17	<0.002	<0.006	<0.006	0.037	<0.0005	5.3E-04	0.026	<0.005	0.023	0.039
	6/7/2016	200.7/200.8	8.2E-03	0.17	<0.002	<0.006	<0.006	0.067	<0.0025	2.4E-03	0.025	<0.005	0.026	0.007
	3/2/2016	200.7/200.8	0.005	0.14	<0.002	<0.006	<0.006	0.13	3.0E-04	3.8E-03	0.015	<0.005	0.023	0.02
	10/29/2015	200.7/200.8	<0.01	0.14	<0.002	<0.006	<0.006	0.066	<0.0025	3.2E-03	0.031	<0.005	0.022	<0.01
	8/11/2015	200.7/200.8	<0.01	0.13	<0.002	<0.006	<0.006	0.12	<0.0025	3.9E-03	0.018	<0.005	0.022	<0.01
	6/2/2015	200.7/200.8	<0.01	0.13	<0.002	<0.006	<0.006	0.045	<0.01	<0.002	0.02	<0.005	0.021	<0.01
	3/10/2015	200.7/200.8	<0.05	0.18	<0.002	<0.006	<0.006	0.091	<0.001	3.9E-03	<0.05	<0.005	0.023	0.034
	11/18/2014	200.7/200.8	<0.01	0.12	<0.002	<0.006	<0.006	0.026	<0.001	0.028	0.023	<0.005	0.026	0.058
	9/8/2014	200.7/200.8	<0.01	0.12	<0.02	<0.006	<0.006	0.046	<0.01	0.033	0.027	<0.005	0.029	0.018

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.14.3 STP1-NW

Semi-Volatile and Volatile Organic Compounds, Analytical Result Summary

STANDARDS			PARAMETERS		
			1-Methylnaphthalene (mg/L)	Acetone (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE
40 CFR 141.62 MCL			NE	NE	**0.006**
NMED Tap Water (JUL 2015)			NE	**14.1**	0.0556
EPA RSL for Tap Water (MAY 2016)			**0.0011**	14	0.0056
Well ID	**DATE SAMPLED**	**METHOD**			
STP1-NW	11/14/2016	8260B	<0.004	<0.01	NA
	9/9/2016	8260B	<0.004	0.011	NA
	6/7/2016	8260B	4.5E-04	<0.01	NA
	3/2/2016	8260B		3.8E-03	NA
	6/2/2015	8270C			<0.01
	3/10/2015	8270C			<0.01
	11/18/2014	8270C			0.011

DEFINITIONS

NE = Not established
NA = Not analyzed
Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.15 EVAPORATION PONDS (EP-1 thru EP-12B)

BTEX and General Chemistry Analytical Result Summary

			PARAMETERS										
		STANDARDS	Benzene (mg/L)	Toluene (mg/L)	Ethyl benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
		WQCC 20NMAC 6.2.3103	0.01	**0.75**	0.75	**0.62**	NE	**1.6**	**250.0**	NE	**10**	**600.0**	**6.6 to 8.6**	NE
		40 CFR 141.62 MCL	**0.005**	1.0	**0.7**	10	NE	4.0	NE	**10.0**	10	NE	NE	NE
		NMED Tap Water (JUL 2015)	0.00454	1.09	0.0149	0.193	**0.143**	1.2	NE	1.97	31.6	NE	NE	NE
		EPA RSL for Tap Water (MAY 2016)	4.6E-04	1.1	0.0015	0.19	0.014	0.8	NE	2	32	NE	NE	NE
SAMPLE ID	DATE SAMPLED	METHOD												
EP-1	11/12/2014	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**24**	**4200**	<10	<1.0	**5800**	8.0	17000
	3/5/2014	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**18**	**1500**	<1.0	<1.0	**2100**	7.87	7600
	10/15/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**21**	**1300**	<2.0	<2.0	**2000**	6.96	6900
	5/28/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**20**	**1000**	<1.0	<1.0	**1200**	8.05	6200
	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**72**	**570**	<2.0	<2.0	**980**	**8.79**	5500
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**34**	**3400**	<0.5	<0.5	**1300**	7.75	8800
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**240**	**3000**	<10	<10	**1200**	**8.71**	12000
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**590**	200	<1.0	3.2	**980**	**5.49**	6200
	11/16/2010	8260B	<0.001	<0.001	<0.001	7.8E-03	<0.0015	**350**	140	4.8	4.8	**1000**	7.4	4300
	8/2/2010	8260B	<0.001	7.7E-03	<0.001	<0.0015	<0.001	**99**	**310**	<4.0	<4.0	**870**	7.68	3700
	4/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**340**	**330**	<1.0	<1.0	**1500**	8.36	5400
EP-2	8/29/2016	8260B	3.9E-03	2.9E-03	4.3E-04	2.4E-03	<0.001	**22**	**3000**	<2.0	<0.5	**1600**	7.69	14000
	3/2/2016	8260B	**0.024**	0.044	0.0049	0.032	<0.005	**5**	**3100**	<4.0	<4.0	**1400**	7.66	16000
	9/1/2015	8260B	**0.01**	0.022	<0.01	<0.015	<0.01	<1.0	**2900**	<1.0	<1.0	**960**	7.87	14000
	3/24/2015	8260B	<0.1	<0.01	<0.01	<0.015	<0.01	**35**	**1700**	<1.0	<1.0	**1200**	7.45	8200
	11/12/2014	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**40**	**2400**	<10	<1.0	**1300**	7.97	8900
	3/5/2014	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**37**	**1900**	<1.0	<1.0	**680**	7.87	7600
	10/15/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**70**	**1100**	<2.0	<2.0	**680**	8.33	6500
	5/28/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**42**	**310**	<1.0	<1.0	**1700**	7.49	6000
	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**84**	**290**	<2.0	<2.0	**820**	8.31	6900
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**55**	**6600**	<2.0	<0.5	**1300**	7.6	20000
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**46**	**2700**	<20	<20	**1700**	8.35	15000
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**65**	**3700**	<20	<20	**990**	7.84	18000
	11/16/2010	8260B	<0.001	0.003	1.9E-03	0.015	<0.0015	**41**	**3500**	<10	<10	**970**	7.38	14000
	8/2/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**43**	**1600**	<4.0	<4.0	**970**	7.91	6400
	4/20/2010	8260B	<0.001	1.3E-03	<0.001	4.3E-03	<0.001	**170**	**1100**	<2.0	<0.5	**1200**	7.56	5800
EP-3	8/29/2016	8260B	**8.4E-03**	5.2E-03	8.4E-04	3.9E-03	<0.001	**18**	**5100**	<2.0	<0.5	**1600**	7.78	20000
	3/2/2016	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005	**29**	**4400**	<4.0	<4.0	**1300**	7.88	18000
	9/1/2015	8260B	**0.011**	0.019	<0.01	<0.015	<0.01	**23**	**5300**	<1.0	<1.0	**650**	7.81	19000
	3/24/2015	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**17**	**4000**	<1.0	<1.0	**900**	7.85	20000
	11/12/2014	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**34**	**4000**	<10	<1.0	**1300**	7.85	12000
	3/5/2014	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**23**	**3700**	<1.0	<1.0	**670**	7.85	12000
	10/15/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**39**	**5200**	<4.0	<4.0	**730**	7.77	18000
	5/28/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**21**	**6500**	<10	<1.0	**1400**	7.76	29000
	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**77**	**2000**	<2.0	<2.0	**1200**	7.84	12000
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**22**	**9500**	<4.0	<4.0	**1400**	7.68	27000
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.01	<0.01	**43**	**6400**	<20	<20	**1600**	8.24	17000
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**54**	**3700**	<5.0	<1.0	**1100**	8.02	19000
	11/16/2010	8260B	<0.001	1.2E-03	<0.001	5.7E-03	<0.0015	**11**	**5100**	<200	<200	**1000**	7.66	16000
	8/2/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**41**	**2800**	<10	<10	**1100**	7.76	9000
	4/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**63**	**8400**	<40	<40	**1100**	8.11	32000
EP-4	8/29/2016	8260B	2.5E-03	1.5E-03	2.9E-04	1.3E-03	<0.001	**17**	**5600**	<2.0	<0.5	**1900**	7.53	24000
	3/2/2016	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005	**24**	**8000**	<10	<10	**1800**	7.76	31000
	9/1/2015	8260B	**0.011**	0.021	<0.01	<0.015	<0.01	**24**	**5300**	<10	<1.0	**690**	7.83	19000
	3/24/2015	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**20**	**7200**	<10	<1.0	**1700**	7.79	29000
	11/12/2014	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**33**	**4200**	<10	<1.0	**1300**	7.91	13000
	3/5/2014	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**18**	**4300**	<1.0	<1.0	**650**	7.84	14000
	10/15/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**33**	**6000**	<4.0	<4.0	**830**	7.72	20000
	5/28/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**19**	**7700**	<10	<1.0	**1500**	7.77	32000
	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**46**	**4000**	<10	<10	**980**	8.13	19000
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**20**	**6500**	<2.0	<0.5	**1400**	7.87	22000
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**39**	**4300**	<20	<20	**1600**	7.76	18000
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**35**	**5300**	<5.0	<1.0	**1100**	8.1	24000
	11/16/2010	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015	**22**	**4500**	<20	<20	**1100**	7.81	18000
	8/2/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**35**	**2500**	<10	<10	**1100**	7.89	8700
	4/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**67**	**8000**	<40	<40	**1000**	8.05	26000

8.15 EVAPORATION PONDS (EP-1 thru EP-12B)

BTEX and General Chemistry Analytical Result Summary

STANDARDS			Benzene (mg/L)	Toluene (mg/L)	Ethyl benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE	**1.6**	**250.0**	NE	**10**	**600.0**	**6.6 to 8.6**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE	4.0	NE	**10.0**	10	NE	NE	NE
NMED Tap Water (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**	1.2	NE	1.97	31.6	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014	0.8	NE	2	32	NE	NE	NE
SAMPLE ID	**DATE SAMPLED**	**METHOD**												
EP-5	8/29/2016	8260B	1.1E-04	<0.001	<0.001	<0.0015	<0.001	**20**	**11000**	<10	<10	**2900**	8.09	39000
	3/2/2016	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005	**27**	**9100**	<10	<10	**2000**	7.77	31000
	9/1/2015	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	**20**	**8500**	<10	<1.0	**1600**	7.97	32000
	3/24/2015	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**17**	**7500**	<10	<1.0	**1600**	7.82	31000
	11/12/2014	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	**27**	**13000**	<10	<1.0	**2100**	7.93	44000
	3/5/2014	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**12**	**5200**	<1.0	<1.0	**740**	7.83	16000
	10/15/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**29**	**6500**	<4.0	<4.0	**950**	7.89	21000
	5/28/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**17**	**8400**	<10	<1.0	**1400**	7.67	32000
	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**16**	**5600**	<50	<2.0	**870**	8.13	23000
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**21**	**6100**	<4.0	<4.0	**1300**	7.84	22000
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**26**	**4300**	<20	<20	**1600**	7.74	21000
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**27**	**6700**	<5.0	<1.0	**1200**	8.06	26000
	11/16/2010	8260B	<0.001	<0.001	<0.001	<0.003	<0.001	**20**	**4200**	<20	<20	**1200**	7.86	18000
	8/2/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**39**	**4800**	<10	<10	**1300**	7.97	20000
	4/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**53**	**12000**	<40	<40	**1100**	8.04	40000
EP-6	8/29/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**20**	**10000**	<5.0	<0.5	**2600**	8.14	41000
	3/2/2016	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005	**22**	**8700**	<10	<1.0	**2000**	7.79	32000
	9/1/2015	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	**21**	**11000**	<10	<1.0	**2000**	7.95	39000
	3/25/2015	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	**15**	**7900**	<10	<10	**1700**	7.83	30000
	11/12/2014	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	**26**	**15000**	<10	<1.0	**2200**	7.99	48000
	3/5/2014	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**18**	**6900**	<1.0	<1.0	**1500**	7.69	23000
	10/15/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**17**	**11000**	<10	<10	**2200**	7.66	38000
	5/28/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**15**	**11000**	<10	<1.0	**1900**	7.7	41000
	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**21**	**11000**	<0.5	<2.0	**2500**	7.93	42000
	5/29/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**20**	**8800**	<4.0	<4.0	**2100**	7.86	27000
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**24**	**6900**	<20	<20	**2300**	7.94	26000
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**18**	**6500**	<20	<20	**1300**	7.83	23000
	11/16/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**25**	**6300**	<20	<20	**1500**	774	21000
	8/2/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**21**	**7400**	<40	<40	**1500**	8.33	27000
	4/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**29**	**4000**	<2.0	<2.0	**1100**	7.66	8400
EP-7	8/30/2016	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	**17**	**66000**	<100	<100	**15000**	7.63	220000
	3/2/2016	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005	**20**	**49000**	<40	<40	**12000**	7.88	130000
	9/1/2015	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	**27**	**59000**	<10	<1.0	**12000**	7.82	180000
	3/25/2015	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	**25**	**50000**	<40	<40	**11000**	7.84	140000
	11/12/2014	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	**44**	**61000**	<40	<40	**12000**	7.82	160000
	3/5/2014	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**28**	**41000**	<10	<1.0	**8500**	7.82	130000
	10/15/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**24**	**52000**	<40	<40	**11000**	7.68	170000
	5/28/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**28**	**55000**	<10	<1.0	**11000**	7.61	190000
	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**37**	**81000**	<500	<2.0	**15000**	7.76	210000
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**24**	**50000**	<20	<20	**9500**	7.72	150000
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**22**	**46000**	<40	<40	**8100**	7.82	120000
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**27**	**28000**	<100	<100	**8400**	7.79	120000
	11/16/2010	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015	**35**	**35000**	<200	<200	**8400**	7.85	84000
	8/2/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**18**	**62000**	<200	<200	**11000**	7.41	180000
	4/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**16**	**27000**	<200	<50	**6900**	7.31	150000
EP-8	8/30/2016	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**17**	**81000**	<40	<40	**13000**	7.63	220000
	9/1/2015	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	**27**	**64000**	<10	<1.0	**13000**	7.8	180000
	3/25/2015	8260B	<0.005	<0.01	<0.01	<0.015	<0.1	**27**	**65000**	<40	<40	**14000**	7.96	130000
	11/12/2014	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	**41**	**61000**	<40	<40	**11000**	7.82	170000
	3/5/2014	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**27**	**39000**	<10	<1.0	**7900**	7.82	130000
	10/15/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**33**	**110000**	<40	<40	**18000**	7.07	370000
	5/28/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**29**	**47000**	<10	<1.0	**8600**	7.59	170000
	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**71**	**250000**	<500	<500	**31000**	6.58	550000
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**33**	**67000**	<20	<20	**9700**	7.53	180000
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**27**	**27000**	<20	<20	**3600**	7.92	66000
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**43**	**170000**	<100	<100	**18000**	6.83	370000
	11/16/2010	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015	**44**	**81000**	<200	<200	**12000**	7.14	190000
	8/2/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**43**	**110000**	<100	<100	**22000**	**6.21**	300000
	4/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**46**	**49000**	<200	<200	**6900**	7.31	150000

8.15 EVAPORATION PONDS (EP-1 thru EP-12B)

BTEX and General Chemistry Analytical Result Summary

STANDARDS			Benzene (mg/L)	Toluene (mg/L)	Ethyl benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE	**1.6**	**250.0**	NE	**10**	**600.0**	**6.6 to 8.6**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE	4.0	NE	**10.0**	10	NE	NE	NE
NMED Tap Water (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**	1.2	NE	1.97	31.6	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014	0.8	NE	2	32	NE	NE	NE
SAMPLE ID	**DATE SAMPLED**	**METHOD**												
EP-9	8/30/2016	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	<10	**160000**	<400	<400	**12000**	7.25	430000
	3/2/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**21**	**98000**	<100	<100	**10000**	7.57	240000
	9/1/2015	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	**20**	**59000**	<20	<1.0	**7200**	7.75	180000
	3/25/2015	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	**22**	**30000**	<20	<20	**4500**	7.84	110000
	11/13/2014	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	**22**	**98000**	<100	<100	**12000**	7.4	300000
	3/5/2014	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**18**	**56000**	<10	8.1	**7800**	7.7	160000
	10/15/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**15**	**55000**	<40	<40	**8100**	7.45	180000
	5/28/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**19**	**62000**	<10	3.0	**8400**	7.54	200000
	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**13**	**46000**	<40	<40	**6400**	7.69	150000
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**21**	**63000**	<20	<20	**7500**	7.57	160000
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**20**	**76000**	<100	<100	**9400**	7.58	210000
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**19**	**57000**	<200	<200	**7100**	7.57	190000
	11/16/2010	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015	**21**	**76000**	<200	<200	**8700**	7.31	200000
	4/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**20**	**38000**	<200	<200	**5000**	7.58	120000
EP-11	8/30/2016	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**16**	**93000**	<40	<40	**13000**	7.64	230000
	3/2/2016	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005	**29**	**50000**	<40	<40	**11000**	7.88	130000
	9/1/2015	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	**25**	**66000**	<10	<1.0	**13000**	7.76	170000
	3/25/2015	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	**34**	**38000**	<40	<40	**8200**	7.95	130000
	11/12/2014	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	**32**	**63000**	<40	<40	**17000**	7.74	180000
	3/5/2014	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**22**	**10000**	<10	<1.0	**4300**	7.76	36000
	10/15/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**22**	**11000**	<10	<10	**4500**	7.92	81000
	5/28/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**23**	**8900**	<10	<1.0	**4000**	7.88	39000
	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**40**	**3500**	<2.0	<2.0	**1300**	8.06	18000
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**22**	**8200**	<4.0	<4.0	**3700**	7.84	30000
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**29**	**5700**	<20	<20	**1800**	7.83	19000
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**23**	**16000**	<40	<40	**3900**	7.85	62000
	11/16/2010	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015	**28**	**14000**	<40	<40	**3300**	7.86	47000
	4/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**18**	**17000**	<100	<100	**4400**	7.73	62000
EP-12A	8/30/2016	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**18**	**5800**	<2.0	<0.5	**3100**	7.79	21000
	3/2/2016	8260B	<0.005	<0005	<0.005	<0.0075	<0.005	**24**	**6500**	<10	<1.0	**1600**	7.95	23000
	9/1/2015	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	**31**	**4900**	<10	<1.0	**1700**	8.31	20000
	3/25/2015	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	**20**	**2500**	<2.0	<2.0	**1000**	8.02	13000
	11/12/2014	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**43**	**3000**	2.5	2.5	**1600**	8.24	12000
	3/5/2014	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**34**	**1800**	<1.0	<1.0	**1100**	7.9	8000
	10/15/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**43**	**1900**	<2.0	<2.0	**1300**	8.2	8600
	5/28/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**29**	**3800**	<1.0	<1.0	**1700**	7.98	17000
	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**35**	**4000**	<2.0	<2.0	**1400**	8.09	19000
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**23**	**7600**	<4.0	<4.0	**2300**	7.88	25000
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**36**	**5400**	<20	<20	**1500**	8.05	18000
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**28**	**6400**	<5.0	<1.0	**1400**	8.08	26000
	11/16/2010	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015	**21**	**11000**	<40	<40	**3100**	8.07	39000
	4/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**29**	**6400**	<20	<20	**1300**	7.89	20000
EP-12B	8/30/2016	8260B	3.5E-03	2.4E-03	1.2E-03	<0.015	<0.01	**21**	**2600**	<2.0	<0.5	**1600**	7.82	15000
	3/2/2016	8260B	1.2E-03	1.7E-03	<0.005	<0.0075	<0.005	**34**	**4200**	<10	<10	**1200**	7.86	18000
	9/1/2015	8260B	**9.9E-03**	0.021	<0.01	<0.015	<0.01	**51**	**3200**	<10	<1.0	**900**	7.96	15000
	3/25/2015	8260B	<0.005	<0.01	<0.01	<0.015	<0.01	**11**	**2800**	<2.0	<2.0	**980**	7.96	13000
	11/12/2014	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**38**	**1900**	<2.0	<2.0	**1200**	7.84	7600
	3/5/2014	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**38**	**1800**	<1.0	<1.0	**710**	7.97	7800
	10/15/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**14**	**1300**	<2.0	<2.0	**770**	8.43	6800
	5/28/2013	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**32**	**3100**	<1.0	<1.0	**1500**	7.93	14000
	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**71**	**1900**	<2.0	<2.0	**1100**	7.91	12000
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**19**	**7000**	<4.0	<10	**1500**	7.75	25000
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**39**	**3600**	<20	<20	**1500**	8.12	18000
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01	**37**	**4800**	<5.0	<1.0	**1100**	8.07	22000
	11/16/2010	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015	**22**	**6100**	<20	<20	**1700**	7.74	22000
	4/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001	**80**	**5000**	<5.0	<5.0	**950**	8.06	9400

8.15 EVAPORATION PONDS (EP-1 thru EP-12B)

BTEX and General Chemistry Analytical Result Summary

STANDARDS			Benzene (mg/L)	Toluene (mg/L)	Ethyl benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE	**1.6**	**250.0**	NE	**10**	**600.0**	**6.6 to 8.6**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE	4.0	NE	**10.0**	10	NE	NE	NE
NMED Tap Water (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**	1.2	NE	1.97	31.6	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014	0.8	NE	2	32	NE	NE	NE
SAMPLE ID	DATE SAMPLED	METHOD												

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.15.1 EVAPORATION PONDS (EP-1 thru EP-12B)

BOD/COD/E-COLI Analytical Result Summary

STANDARDS			PARAMETERS			
			BOD (mg/L)	COD (mg/L)	E-Coli (CFU/100ml)	Total Coliform (CFU/100ml)
WQCC 20NMAC 6.2.3103			<30	<125	< 500 organisms per 100 ml	
40 CFR 141.62 MCL			NE	NE	NE	NE
NMED Tap Water (JUL 2015)			NE	NE		
EPA RSL for Tap Water (MAY 2016)			NE	NE		
SAMPLE ID	**DATE SAMPLED**	**METHOD**				
EP-1	11/12/2014	SM5210B/E410.4/SM9223B	240	1700	ND	
	3/5/2014	SM5210B/E410.4/SM9223B	55	560	<10	
	10/16/2013	SM5210B/E410.4/SM9223B	<33.3	560	20	NL
	5/29/2013	SM5210B/E410.4/SM9223B	75	310	10	NL
	11/7/2012	SM5210B/E410.4/SM9223B	520	1100	10462	NL
	5/30/2012	SM5210B/E410.4/SM9223B	340	990	>24196	NL
	11/2/2011	SM5210B/9223B	960	2250	>2419.6	NL
	5/24/2011	SM5210B/9223B	440	1340	1986.3	NL
	11/17/2010	SM9223B/3014	1400	3200	<10	NL
	8/2-3/2010	SM5210B/E410.4/3014	290	346	>2419.6	NL
	4/21/2010	SM5210B/E410.4/3014	1080	2210	>2419.6	>2419.6
EP-2	8/29/2016	SM5210B/E410.4/SM9223B	220	694	>24196	
	3/8/2016	SM5210B/E410.4/SM9223B	>413.04	977	>2419.6	>2419.6
	9/2/2015	SM5210B/E410.4/SM9223B	460	775	5475	
	3/26/2015	SM5210B/E410.4/SM9223B	330	610	>24196	
	11/12/2014	SM5210B/E410.4/SM9223B	170	580	>24196	
	3/5/2014	SM5210B/E410.4/SM9223B	450	1000	>2419.6	
	10/16/2013	SM5210B/E410.4/SM9223B	420	1100	3282	NL
	5/29/2013	SM5210B/E410.4/SM9223B	210	700	31	NL
	11/7/2012	SM5210B/E410.4/SM9223B	750	1300	<10	NL
	5/30/2012	SM5210B/E410.4/SM9223B	100	860	4106	
	11/2/2011	SM5210B/9223B	530	1560	>2419.6	NL
	5/24/2011	SM5210B/9223B	230	737	648.8	NL
	11/17/2010	SM9223B/3014	550	1020	1553.1	NL
	8/2-3/2010	SM5210B/E410.4/3014	64	172	>2419.6	NL
	4/21/2010	SM5210B/E410.4/3014	1100	2060	>2419.6	>2419.6
EP-3	8/29/2016	SM5210B/E410.4/SM9223B	110	746	>24196	
	3/8/2016	SM5210B/E410.4/SM9223B	240	627	1732.9	>2419.6
	9/2/2015	SM5210B/E410.4/SM9223B	120	725	1076	
	3/26/2015	SM5210B/E410.4/SM9223B	230	977	24196	
	11/12/2014	SM5210B/E410.4/SM9223B	120	590	408	
	3/5/2014	SM5210B/E410.4/SM9223B	440	990	122	
	10/16/2013	SM5210B/E410.4/SM9223B	320	870	121	NL
	5/29/2013	SM5210B/E410.4/SM9223B	120	1600	<10	NL
	11/7/2012	SM5210B/E410.4/SM9223B	390	900	10	NL
	5/30/2012	SM5210B/E410.4/SM9223B	69	980	10	NL
	11/2/2011	SM5210B/9223B	140	608	>2419.6	NL
	5/24/2011	SM5210B/9223B	190	574	1.0	NL
	11/17/2010	SM9223B/3014	120	560	40.8	NL
	8/2-3/2010	SM5210B/E410.4/3014	36	238	>2419.6	NL
	4/21/2010	SM5210B/E410.4/3014	200	771	100.6	>2419.6
EP-4	8/29/2016	SM5210B/E410.4/SM9223B	<64.88	872	6131	
	3/8/2016	SM5210B/E410.4/SM9223B	190	569	36.3	2419.6
	9/2/2015	SM5210B/E410.4/SM9223B	110	909	880	
	3/26/2015	SM5210B/E410.4/SM9223B	110	730	5475	
	11/12/2014	SM5210B/E410.4/SM9223B	120	670	63	
	3/5/2014	SM5210B/E410.4/SM9223B	500	1000	1	
	10/16/2013	SM5210B/E410.4/SM9223B	270	840	31	NL

8.15.1 EVAPORATION PONDS (EP-1 thru EP-12B)

BOD/COD/E-COLI Analytical Result Summary

STANDARDS			BOD (mg/L)	COD (mg/L)	E-Coli (CFU/100ml)	Total Coliform (CFU/100ml)
WQCC 20NMAC 6.2.3103			<30	<125	< 500 organisms per 100 ml	
40 CFR 141.62 MCL			NE	NE	NE	NE
NMED Tap Water (JUL 2015)			NE	NE		
EPA RSL for Tap Water (MAY 2016)			NE	NE		
SAMPLE ID	**DATE SAMPLED**	**METHOD**				
EP-4	5/29/2013	SM5210B/E410.4/SM9223B	96	700	<10	NL
	11/7/2012	SM5210B/E410.4/SM9223B	230	880	<10	NL
	5/30/2012	SM5210B/E410.4/SM9223B	59	680	<10	NL
	11/2/2011	SM5210B/9223B	62	478	547.5	NL
	5/24/2011	SM5210B/9223B	190	639	4.1	NL
	11/17/2020	SM9223B/3014	140	440	12	NL
	8/2-3/2010	SM5210B/E410.4/3014	35	204	>2419.6	NL
	4/21/2010	SM5210B/E410.4/3014	281	683	<1.0	>2419.6
EP-5	8/29/2016	SM5210B/E410.4/SM9223B	19	861	31	
	3/8/2016	SM5210B/E410.4/SM9223B	63	537	1	613.1
	9/2/2015	SM5210B/E410.4/SM9223B	17	979	1515	
	3/26/2015	SM5210B/E410.4/SM9223B	47	860	135	
	11/12/2014	SM5210B/E410.4/SM9223B	<20.55	660	<1	
	3/5/2014	SM5210B/E410.4/SM9223B	>69.15	1000	<1	
	10/16/2013	SM5210B/E410.4/SM9223B	220	720	31	NL
	5/29/2013	SM5210B/E410.4/SM9223B	66	600	<10	NL
	11/7/2012	SM5210B/E410.4/SM9223B	150	1000	<10	NL
	5/30/2012	SM5210B/E410.4/SM9223B	35	760	10	NL
	11/2/2011	SM5210B/9223B	29	302	5.2	NL
	5/24/2011	SM5210B/9223B	150	413	1.0	NL
	11/17/2010	SM9223B/3014	76	320	4.1	NL
	8/2-3/2010	SM5210B/E410.4/3014	40	208	1960.8	NL
	4/21/2010	SM5210B/E410.4/3014	123	782	2.0	>2419.6
EP-6	8/29/2016	SM5210B/E410.4/SM9223B	14	746	10	
	3/2/2016	SM5210B/E410.4/SM9223B	77	574	10	
	9/2/2015	SM5210B/E410.4/SM9223B	8	1700	341	
	3/26/2015	SM5210B/E410.4/SM9223B	47	978	63	
	11/12/2014	SM5210B/E410.4/SM9223B	<15.30	810	<1	
	3/5/2014	SM5210B/E410.4/SM9223B	>171.97	600	<10	NL
	10/16/2013	SM5210B/E410.4/SM9223B	<25.5	940	<10	NL
	5/29/2013	SM5210B/E410.4/SM9223B	46	710	<10	NL
	11/7/2012	SM5210B/E410.4/SM9223B	10	1000	<1.0	NL
	5/30/2012	SM5210B/E410.4/SM9223B	18	710	<1.0	NL
	11/2/2011	SM5210B/9223B	7.3	252	47.3	NL
	5/24/2011	SM5210B/9223B	71	473	<1.0	NL
	11/17/2010	SM9223B/3014	<1200	168	8.6	NL
	8/2-3/2010	SM5210B/E410.4	15	172	1892	NL
	4/21/2010	SM5210B/E410.5	54.8	290	1.0	>2419.6
EP-7	8/30/2016	SM5210B/E410.4/SM9223B	4	3140	<1	
	3/8/2016	SM5210B/E410.4/SM9223B	41	820	<1	3.1
	9/2/2015	SM5210B/E410.4/SM9223B	21	1960	<10	
	3/26/2015	SM5210B/E410.4/SM9223B	11	658	<10	
	11/12/2014	SM5210B/E410.4/SM9223B	28	4400	20	
	3/5/2014	SM5210B/E410.4/SM9223B	11	3900	<1.0	
	10/16/2013	SM5210B/E410.4/SM9223B	37	3200	<10	NL
	5/29/2013	SM5210B/E410.4/SM9223B	19	6000	<10	NL
	11/7/2012	SM5210B/E410.4/SM9223B	21	2300	<1.0	NL
	5/30/2012	SM5210B/E410.4/SM9223B	15	3200	<1.0	NL
	11/2/2011	SM5210B/9223B	15	1240	<1.0	NL
	5/24/2011	SM5210B/9223B	27	918	<1.0	NL
	11/17/2010	SM9223B/3014	380	920	<1.0	NL

8.15.1 EVAPORATION PONDS (EP-1 thru EP-12B)

BOD/COD/E-COLI Analytical Result Summary

STANDARDS			BOD (mg/L)	COD (mg/L)	E-Coli (CFU/100ml)	Total Coliform (CFU/100ml)
WQCC 20NMAC 6.2.3103			<30	<125	< 500 organisms per 100 ml	
40 CFR 141.62 MCL			NE	NE	NE	NE
NMED Tap Water (JUL 2015)			NE	NE		
EPA RSL for Tap Water (MAY 2016)			NE	NE		
SAMPLE ID	**DATE SAMPLED**	**METHOD**				
EP-7	8/2-3/2010	SM5210B/E410.4/3014	5	870	<1.0	NL
	4/21/2010	SM5210B/E410.4/3014	<60.0	1010	<1.0	96
EP-8	8/30/2016	SM5210B/E410.4/SM9223B	6	3180	<1	
	9/2/2015	SM5210B/E410.4/SM9223B	32	880	10	
	3/26/2015	SM5210B/E410.4/SM9223B	12	600	<1	
	11/12/2014	SM5210B/E410.4/SM9223B	27	4100	10	
	3/5/2014	SM5210B/E410.4/SM9223B	13	2900	<1.0	
	10/16/2013	SM5210B/E410.4/SM9223B	6.8	9800	<10	NL
	5/29/2013	SM5210B/E410.4/SM9223B	22	4600	<10	NL
	11/7/2012	SM5210B/E410.4/SM9223B	10	13000	<10	NL
	5/30/2012	SM5210B/E410.4/SM9223B	4.5	3800	<1.0	NL
	11/2/2011	SM5210B/9223B	9.0	512	32.3	NL
	5/24/2011	SM5210B/9223B	46	3140	<1.0	NL
	11/17/2010	SM9223B/3014	400	1720	<1.0	NL
	8/2-3/2010	SM5210B/E410.4/3014	5	2520	<1.0	<1
	4/21/2010	SM5210B/E410.4/3014	14.3	776	<1.0	2
EP-9	8/30/2016	SM5210B/E410.4/SM9223B	37	5420	<1	
	3/2/2016	SM5210B/E410.4/SM9223B	<2.99	2720	<1	
	9/2/2015	SM5210B/E410.4/SM9223B	20	1480	74	
	3/26/2015	SM5210B/E410.4/SM9223B	11	509	<10	
	11/13/2014	SM5210B/E410.4/SM9223B	4.2	3900	<1	
	3/5/2014	SM5210B/E410.4/SM9223B	15	1000	<1	
	10/16/2013	SM5210B/E410.4/SM9223B	<12.3	4700	<10	NL
	5/29/2013	SM5210B/E410.4/SM9223B	19	7400	<10	NL
	11/7/2012	SM5210B/E410.4/SM9223B	7.9	1400	<1.0	NL
	5/30/2012	SM5210B/E410.4/SM9223B	23	2800	<1.0	NL
	11/2/2011	SM5210B/9223B	9.0	1870	<1.0	NL
	5/24/2011	SM5210B/9223B	43	1640	<1.0	NL
	11/17/2010	SM9223B/3014	350	1240	<1.0	NL
	4/21/2010	SM5210B/E410.4/3014	<60.0	760	<1.0	85.5
EP-11	8/30/2016	SM5210B/E410.4/SM9223B	4	2260	<1	
	3/8/2016	SM5210B/E410.4/SM9223B	18	210	<1	<1
	9/2/2015	SM5210B/E410.4/SM9223B	30	1120	10	
	3/26/2015	SM5210B/E410.4/SM9223B	16	692	10	
	11/12/2014	SM5210B/E410.4/SM9223B	89	4700	<10	
	3/5/2014	SM5210B/E410.4/SM9223B	48	570	<10	
	10/16/2013	SM5210B/E410.4/SM9223B	190	530	20	NL
	5/29/2013	SM5210B/E410.4/SM9223B	30	610	<10	NL
	11/7/2012	SM5210B/E410.4/SM9223B	130	620	<10	NL
	5/30/2012	SM5210B/E410.4/SM9223B	20	890	<10	NL
	11/2/2011	SM5210B/9223B	40	486	461.1	NL
	5/24/2011	SM5210B/9223B	52	711	<1.0	NL
	11/17/2010	SM9223B/3014	350	460	4.1	NL
	4/21/2010	SM5210B/E410.4/3014	<60.0	492	<1.0	71.9
EP-12A	8/30/2016	SM5210B/E410.4/SM9223B	<39.64	618	2723	
	3/8/2016	SM5210B/E410.4/SM9223B	130	867	21.6	980.4
	9/2/2015	SM5210B/E410.4/SM9223B	150	755	8164	
	3/26/2015	SM5210B/E410.4/SM9223B	170	403	12033	
	11/12/2014	SM5210B/E410.4/SM9223B	<37.50	450	131	
	3/5/2014	SM5210B/E410.4/SM9223B	210	560	<10	
	10/16/2013	SM5210B/E410.4/SM9223B	270	930	41	NL
	5/29/2013	SM5210B/E410.4/SM9223B	100	1400	<10	NL
	11/7/2012	SM5210B/E410.4/SM9223B	150	650	<10	NL
	5/29/2012	SM5210B/E410.4/SM9223B	22	660	<10	NL
	11/2/2011	SM5210B/9223B	85	515	>2419.6	NL
	5/24/2011	SM5210B/9223B	130	582	1.0	NL
	11/17/2010	SM9223B/3014	330	300	64.4	NL
	4/21/2010	SM5210B/E410.4/3014	87.3	675	47.6	>2419.6

8.15.1 EVAPORATION PONDS (EP-1 thru EP-12B)

BOD/COD/E-COLI Analytical Result Summary

STANDARDS			BOD (mg/L)	COD (mg/L)	E-Coli (CFU/100ml)	Total Coliform (CFU/100ml)
WQCC 20NMAC 6.2.3103			**<30**	**<125**	**< 500 organisms per 100 ml**	
40 CFR 141.62 MCL			NE	NE	NE	NE
NMED Tap Water (JUL 2015)			NE	NE		
EPA RSL for Tap Water (MAY 2016)			NE	NE		
SAMPLE ID	**DATE SAMPLED**	**METHOD**				
EP-12B	8/30/2016	SM5210B/E410.4/SM9223B	240	770	>24196	
	3/8/2016	SM5210B/E410.4/SM9223B	240	806	770.1	>2419.6
	9/2/2015	SM5210B/E410.4/SM9223B	300	657	3873	
	3/26/2015	SM5210B/E410.4/SM9223B	270	647	17329	
	11/12/2014	SM5210B/E410.4/SM9223B	110	410	1012	
	3/5/2014	SM5210B/E410.4/SM9223B	430	810	<10	
	10/16/2013	SM5210B/E410.4/SM9223B	460	940	231	NL
	5/29/2013	SM5210B/E410.4/SM9223B	260	770	31	NL
	11/7/2012	SM5210B/E410.4/SM9223B	310	850	<10	NL
	5/30/2012	SM5210B/E410.4/SM9223B	37	920	<10	NL
	11/2/2011	SM5210B/9223B	130	618	>2419.6	NL
	5/24/2011	SM5210B/9223B	170	450	3.0	NL
	11/17/2010	SM9223B/3014	350	280	12	NL
	4/21/2010	SM5210B/E410.4/3014	342	1070	1540.2	>2419.6

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

1. 20 NMAC 6.2.2101 General Requirements

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.15.2 EVAPORATION PONDS (EP-1 thru EP-12B)

Total Metals Analytical Result Summary

STANDARDS			PARAMETERS										
			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	0.1	1.3	NE	**0.015**	NE	0.05	0.002	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00559	0.79	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	NE	0.08	14	0.015	0.43	0.1	6.3E-04	0.06	6
SAMPLE ID	DATE SAMPLED	METHOD											
EP-1	11/12/2014	200.7/200.8	**0.047**	0.13	0.048	<0.006	**2.2**	<0.005	**0.68**	0.017	3.2E-04	<0.005	0.059
	3/5/2014	200.7/200.8	**0.013**	0.12	0.018	<0.006	0.86	<0.001	**0.51**	<0.01	<0.0002	<0.001	0.028
	10/15/2013	200.7/200.8	**0.011**	0.1	0.018	<0.006	0.56	<0.01	**0.46**	<0.01	<0.0002	<0.01	0.025
	5/28/2013	200.7/200.8	6.2E-03	0.057	9.9E-03	<0.006	0.4	<0.005	**0.39**	7.7E-03	<0.0002	1.6E-03	0.019
	11/6/2012	200.7/200.8	9.5E-03	0.037	7.9E-03	<0.006	**3.1**	<0.005	**0.6**	0.011	**2.2E-03**	<0.0025	0.066
	5/29/2012	200.7/200.8	9.1E-03	0.074	<0.006	0.014	**2.3**	<0.005	0.15	9.8E-03	8.2E-04	<0.0025	0.17
	11/1/2011	200.7/200.8	7.7E-03	0.18	0.013	0.021	**7.3**	<0.005	0.14	6.7E-03	**4.5E-03**	<0.0025	0.43
	5/23/2011	200.7/200.8	**0.014**	0.077	**0.055**	0.013	**20**	<0.005	**0.36**	<0.05	1.5E-03	<0.0025	0.23
	11/16/2010	6010B	<0.1	<0.1	**0.39**	<0.03	**14**	<0.025	0.19	<0.25	6.7E-04	<0.02	0.89
	8/2/2010	6010B	<0.5	<0.5	<0.15	<0.15	**15**	<0.13	**0.43**	<1.3	1.6E-03	NL	1.3
	4/20/2010	6010B	<0.1	0.27	<0.03	<0.03	**36**	<0.025	**0.24**	<0.25	<0.0002	5.81E-03	0.49
EP-2	8/29/2016	200.7/200.8	**0.014**	0.12	0.012	<0.006	**3.5**	<0.0025	**0.43**	0.03	6.9E-05	1.5E-03	0.038
	3/2/2016	200.7/200.8	**0.011**	0.13	7.2E-03	<0.006	0.85	<0.005	**0.22**	0.018	7.1E-05	5.1E-03	0.014
	9/1/2015	200.7/200.8	**0.014**	0.13	0.013	<0.006	0.58	<0.0025	**0.3**	0.013	<0.0002	4.8E-03	0.014
	3/24/2015	200.7/200.8	<0.2	0.14	0.017	7.3E-03	**4.4**	<0.01	**0.42**	<0.2	<0.0002	<0.01	0.089
	11/12/2014	200.7/200.8	<0.02	0.11	0.012	<0.006	**2.8**	0.002	**0.24**	<0.02	<0.0002	7.1E-03	0.025
	3/5/2014	200.7/200.8	**0.012**	0.12	0.013	<0.006	**1.2**	<0.001	**0.36**	0.023	<0.0001	5.1E-03	0.02
	10/15/2013	200.7/200.8	**0.011**	0.093	8.1E-03	<0.006	0.45	<0.01	0.2	0.012	<0.0002	<0.01	0.032
	5/28/2013	200.7/200.8	**0.013**	0.056	0.017	<0.006	**3.1**	<0.005	**0.44**	0.029	<0.0002	<0.001	0.045
	11/6/2012	200.7/200.8	9.3E-03	0.037	0.014	<0.006	**1.3**	<0.005	**0.37**	5.3E-03	3.3E-04	<0.0025	0.025
	5/29/2012	200.7/200.8	**0.011**	0.064	<0.006	<0.006	0.99	<0.005	0.15	0.011	<0.0002	<0.0025	0.032
	11/1/2011	200.7/200.8	8.3E-03	0.059	0.008	<0.006	**3.9**	<0.005	0.11	6.2E-03	1.5E-03	<0.005	0.12
	5/23/2011	200.7/200.8	**0.014**	0.024	0.024	<0.006	**2.6**	<0.005	**0.33**	<0.05	<0.0002	<0.0025	0.037
	11/16/2010	200.7/200.8	<0.1	<0.11	**0.051**	<0.03	**7.9**	<0.025	**0.41**	<0.25	4.5E-04	<0.001	0.59
	8/2/2010	6010B	<0.2	<0.2	<0.06	<0.06	**2.4**	<0.05	**0.23**	<0.5	<0.0002	<0.001	<0.5
	4/20/2010	6010B	<0.1	<0.1	<0.03	<0.03	**17**	<0.025	**0.31**	<0.25	7.7E-04	8.3E-03	<0.25
EP-3	8/29/2016	200.7/200.8	8.9E-03	0.14	0.01	<0.006	**2.5**	<0.0025	**0.38**	0.032	6.7E-05	1.60E-03	0.033
	3/2/2016	200.7/200.8	**0.013**	0.18	9.5E-03	<0.006	**1.4**	8.3E-04	**0.38**	0.019	7.9E-05	4.20E-03	0.015
	9/1/2015	200.7/200.8	**0.015**	0.2	0.017	<0.006	0.42	<0.0025	**0.29**	0.018	<0.0002	2.70E-03	0.013
	3/24/2015	200.7/200.8	<0.2	0.13	0.01	<0.006	**1.2**	<0.2	**0.33**	<0.2	<0.0002	<0.2	0.021
	11/12/2014	200.7/200.8	<0.02	0.1	9.8E-03	<0.006	**1.9**	<0.02	**0.23**	<0.02	<0.0002	<0.02	0.02
	3/5/2014	200.7/200.8	**0.011**	0.15	<0.03	<0.03	1.0	<0.01	**0.41**	0.019	<0.0002	<0.01	<0.05
	10/15/2013	200.7/200.8	**0.014**	0.11	0.007	<0.006	0.76	<0.01	0.19	0.015	<0.0002	<0.01	0.023
	5/28/2013	200.7/200.8	**0.013**	0.079	0.011	<0.006	0.89	<0.005	**0.22**	0.013	<0.0002	<0.005	0.016
	11/6/2012	200.7/200.8	9.5E-03	0.039	7.6E-03	<0.006	**1.7**	<0.005	**0.48**	0.008	4.4E-04	<0.0025	0.031
	5/29/2012	200.7/200.8	**0.013**	0.081	<0.006	<0.006	0.39	<0.005	0.11	0.013	<0.0002	<0.005	<0.01
	11/1/2011	200.7/200.8	7.6E-03	0.061	6.9E-03	<0.006	**2.6**	<0.005	0.12	6.5E-03	5.5E-04	<0.005	0.06
	5/23/2011	200.7/200.8	**0.015**	0.034	0.023	<0.006	**2.0**	<0.005	**0.33**	<0.05	<0.0002	<0.0025	0.033
	11/16/2010	6010B	<0.1	<0.1	<0.03	<0.03	0.65	<0.025	0.19	<0.25	<0.0002	<0.001	<0.1
	8/2/2010	6010B	<0.2	<0.2	<0.06	<0.06	**3.0**	<0.05	**0.38**	<0.5	<0.0002	<0.001	<0.5
	4/20/2010	6010B	<0.1	<0.1	<0.03	<0.03	**1.6**	<0.025	**0.39**	<0.25	<0.0002	3.26E-03	<0.25

8.15.2 EVAPORATION PONDS (EP-1 thru EP-12B)

Total Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	0.1	1.3	NE	**0.015**	NE	0.05	0.002	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00559	0.79	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	NE	0.08	14	0.015	0.43	0.1	6.3E-04	0.06	6
SAMPLE ID	DATE SAMPLED	METHOD											
EP-4	8/29/2016	200.7/200.8	**0.011**	0.15	9.5E-03	<0.006	**1.6**	<0.0025	**0.35**	0.035	5.5E-05	2.20E-03	0.025
	3/2/2016	200.7/200.8	**0.023**	0.15	8.6E-03	<0.006	0.63	<0.005	**0.43**	0.021	7.3E-05	4.00E-03	0.012
	9/1/2015	200.7/200.8	**0.016**	0.2	0.017	<0.006	0.43	<0.0025	**0.29**	0.018	<0.0002	2.80E-03	0.018
	3/24/2015	200.7/200.8	<0.2	0.13	0.009	<0.006	0.81	<0.2	**0.44**	<0.2	<0.0002	<0.2	0.014
	11/12/2014	200.7/200.8	<0.02	0.11	0.01	<0.006	**1.7**	<0.02	**0.28**	<0.02	<0.0002	<0.02	0.023
	3/5/2014	200.7/200.8	**0.012**	0.14	<0.03	<0.03	0.99	<0.01	**0.43**	0.018	<0.0002	<0.01	<0.05
	10/15/2013	200.7/200.8	**0.012**	0.091	6.8E-03	<0.006	0.38	<0.01	0.15	0.017	<0.0002	<0.01	0.018
	5/28/2013	200.7/200.8	**0.014**	0.082	0.012	<0.006	0.58	<0.01	0.18	<0.02	<0.0002	<0.01	0.015
	11/6/2012	200.7/200.8	**0.011**	0.061	<0.006	<0.006	**1.2**	<0.005	**0.52**	0.011	<0.0002	<0.0025	0.026
	5/29/2012	200.7/200.8	**0.015**	0.064	0.006	<0.006	0.28	<0.005	0.064	0.018	<0.0002	<0.0025	<0.01
	11/1/2011	200.7/200.8	8.7E-03	0.077	<0.006	<0.006	**1.2**	<0.005	**0.21**	7.8E-03	2.2E-04	<0.005	0.024
	5/23/2011	200.7/200.8	**0.012**	0.065	0.024	<0.006	0.41	<0.005	**0.3**	<0.05	<0.0002	<0.0025	0.018
	11/16/2010	6010B	<0.1	<0.1	<0.03	<0.03	0.5	<0.025	0.17	<0.25	<0.0002	<0.001	<0.1
	8/2/2010	6010B	<0.2	<0.2	<0.06	<0.06	0.76	<0.05	**0.31**	<0.5	<0.0002	<.001	<0.5
	4/20/2010	6010B	<0.1	0.086	<0.006	<0.006	**2.0**	<0.005	**0.37**	<0.05	<0.0002	3.27E-03	<0.05
EP-5	8/29/2016	200.7/200.8	**0.024**	0.17	8.5E-03	<0.006	0.25	<0.0025	**0.35**	0.047	5.4E-05	3.60E-03	7.8E-03
	3/2/2016	200.7/200.8	**0.022**	0.15	0.009	<0.006	0.6	<0.005	**0.43**	0.02	6.7E-05	3.90E-03	0.011
	9/1/2015	200.7/200.8	**0.026**	0.16	0.016	<0.006	0.16	<0.005	**0.32**	0.034	<0.0002	<0.005	0.012
	3/24/2015	200.7/200.8	**0.022**	0.14	0.01	<0.006	0.89	<0.01	**0.89**	<0.2	<0.0002	<0.01	0.016
	11/12/2014	200.7/200.8	**0.032**	0.13	7.7E-03	<0.006	0.62	<0.02	**0.48**	<0.05	<0.0002	<0.05	0.012
	3/5/2014	200.7/200.8	**0.015**	0.12	<0.03	<0.03	0.6	<0.01	**0.55**	0.016	<0.0002	<0.01	<0.05
	10/15/2013	200.7/200.8	**0.013**	0.09	7.1E-03	<0.006	0.33	<0.01	0.18	0.017	<0.0002	<0.01	0.016
	5/28/2013	200.7/200.8	**0.012**	0.084	0.012	<0.006	0.47	<0.01	0.16	<0.02	<0.0002	<0.01	0.014
	11/6/2012	200.7/200.8	**0.012**	0.062	<0.006	<0.006	0.63	<0.005	**0.39**	0.012	<0.0002	<0.0025	0.023
	5/29/2012	200.7/200.8	**0.015**	0.064	<0.006	<0.006	0.28	<0.005	0.07	0.018	<0.0002	<0.0025	<0.01
	11/1/2011	200.7/200.8	**0.011**	0.094	8.5E-03	<0.006	0.39	<0.005	**0.27**	6.9E-03	.<0.0002	<0.005	0.01
	5/23/2011	200.7/200.8	**0.018**	0.083	0.022	<0.006	0.14	<0.005	0.19	<0.05	<0.0002	<0.0025	0.015
	11/16/2010	6010B	<0.1	<0.1	0.043	<0.03	0.68	<0.025	**0.22**	<0.25	<0.0002	<0.001	<0.1
	8/2/2010	6010B	<0.2	<0.2	<0.06	<0.06	<0.5	<0.05	0.069	<0.5	<0.002	<0.001	<0.5
	4/20/2010	6010B	<0.1	0.11	<0.03	<0.03	**1.1**	<0.025	**0.45**	<0.25	<0.0002	5.71E-03	<0.05
EP-6	8/29/2016	200.7/200.8	**0.038**	0.19	8.3E-03	<0.006	0.15	<0.0025	**0.39**	0.046	<0.0002	3.90E-03	7.3E-03
	3/2/2016	200.7/200.8	**0.021**	0.18	0.011	<0.006	1.1	0.0012	**0.47**	0.017	<0.0002	3.90E-03	0.014
	9/1/2015	200.7/200.8	**0.031**	0.13	0.014	<0.006	0.028	<0.005	**0.33**	0.04	<0.0002	<0.005	0.014
	3/25/2015	200.7/200.8	**0.023**	0.13	9.2E-03	<0.006	0.78	<0.01	**0.43**	0.026	<0.0002	<0.01	0.018
	11/12/2014	200.7/200.8	**0.034**	0.15	8.2E-03	<0.006	**1.6**	<0.02	**0.55**	<0.05	<0.0002	<0.05	<0.02
	3/5/2014	200.7/200.8	**0.015**	0.12	8.9E-03	<0.006	0.67	<0.01	**0.59**	0.018	<0.0002	<0.01	0.014
	10/15/2013	200.7/200.8	<0.05	0.099	9.9E-03	<0.006	0.1	<0.05	**0.22**	<0.05	<0.0002	<0.05	<0.01
	5/28/2013	200.7/200.8	**0.023**	0.09	8.8E-03	<0.006	0.13	<0.01	0.13	<0.02	<0.0002	<0.002	<0.01
	11/6/2012	200.7/200.8	**0.023**	0.092	7.6E-03	<0.006	0.14	<0.005	0.086	0.024	<0.0002	<0.0025	<0.01
	5/29/2012	200.7/200.8	**0.017**	0.1	9.3E-03	<0.006	0.28	<0.005	**0.42**	0.016	<0.0002	<0.0025	0.013
	11/1/2011	200.7/200.8	**0.017**	0.11	0.015	<0.006	0.15	<0.005	**0.21**	8.9E-03	<0.0002	<0.005	<0.01
	5/23/2011	200.7/200.8	**0.02**	0.12	0.019	<0.006	0.17	<0.005	0.14	<0.05	<0.0002	<0.005	0.01
	11/16/2010	6010B	<0.1	0.14	0.04	<0.03	<0.03	<0.025	**0.33**	<0.25	<0.0002	0.001	<0.1
	8/2/2010	6010B	<0.2	<0.2	<0.06	<0.06	<0.5	<0.05	**4.8**	<0.5	<0.0002	<0.001	<0.5
EP-7	8/30/2016	200.7/200.8	**0.14**	0.17	<0.03	<0.03	<0.1	<0.025	**1.5**	**0.19**	7.5E-05	8.80E-03	0.02

8.15.2 EVAPORATION PONDS (EP-1 thru EP-12B)

Total Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	0.1	1.3	NE	**0.015**	NE	0.05	0.002	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00559	0.79	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	NE	0.08	14	0.015	0.43	0.1	6.3E-04	0.06	6
SAMPLE ID	DATE SAMPLED	METHOD											
EP-7	3/2/2016	200.7/200.8	**0.069**	0.2	0.012	<0.03	**2**	<0.025	**0.61**	**0.071**	9.2E-05	5.90E-03	0.023
	9/1/2015	200.7/200.8	**0.16**	0.18	**0.064**	<0.03	0.12	<0.05	**0.51**	**0.22**	<0.0002	<0.05	<0.05
	3/25/2015	200.7/200.8	<0.2	0.16	<0.03	<0.03	0.32	<0.2	**0.77**	<0.2	<0.0002	<0.2	<0.05
	11/12/2014	200.7/200.8	**0.14**	0.2	<0.03	<0.03	0.72	<0.05	**1.1**	<0.5	<0.0002	<0.05	<0.05
	3/5/2014	200.7/200.8	**0.15**	0.11	<0.03	<0.03	0.28	<0.1	**2.0**	**0.12**	<0.0002	<0.1	<0.05
	10/15/2013	200.7/200.8	**0.14**	0.099	<0.3	<0.03	0.39	<0.05	**0.54**	**0.16**	<0.0002	<0.05	<0.05
	5/28/2013	200.7/200.8	**0.13**	0.11	<0.03	<0.03	0.14	<0.05	**3.1**	**0.1**	<0.0002	<0.1	<0.05
	11/6/2012	200.7/200.8	**0.14**	0.081	<0.03	<0.03	<0.1	<0.025	**0.32**	<0.25	<0.0002	<0.02	<0.05
	5/29/2012	200.7/200.8	**0.078**	0.14	0.014	<0.006	0.18	<0.005	**0.74**	**0.077**	<0.0002	<0.02	0.011
	11/1/2011	200.7/200.8	**0.049**	0.098	<0.03	<0.03	0.39	<0.025	**0.83**	0.03	<0.0002	<0.02	<0.05
	5/23/2011	200.7/200.8	**0.079**	0.13	<0.03	<0.03	0.16	<0.025	**2.5**	<0.25	<0.0002	<0.01	<0.05
	1/16/2010	6010B	<0.2	<0.2	<0.06	<0.06	0.83	<0.05	**3.3**	<0.5	<0.0002	0.003	<0.2
	8/2/2010	6010B	<1.0	<1.0	<0.3	<0.3	<2.5	<0.25	**3.9**	<2.5	<0.0002	NL	<2.5
	4/20/2010	6010B	**0.1**	<0.2	<0.03	<0.03	0.28	<0.025	**2.7**	<0.25	<0.0002	2.25E-03	<0.25
EP-8	8/30/2016	200.7/200.8	**0.14**	0.19	0.016	<0.03	<0.1	<0.025	**1.5**	0.19	7.9E-05	9.50E-03	0.018
	9/1/2015	200.7/200.8	**0.18**	0.18	0.046	<0.03	<0.1	<0.05	**0.52**	**0.22**	<0.0002	<0.05	<0.05
	3/25/2015	200.7/200.8	<0.2	0.16	<0.03	<0.03	0.34	<0.2	**0.78**	<0.2	<0.0002	<0.2	<0.05
	11/12/2014	200.7/200.8	**0.14**	0.2	<0.03	<0.03	0.57	<0.05	**1.2**	<0.5	<0.0002	<0.05	<0.05
	3/5/2014	200.7/200.8	**0.12**	0.12	<0.03	<0.03	0.28	<0.1	**2.2**	<0.1	<0.0002	<0.1	<0.05
	10/15/2013	200.7/200.8	**0.35**	0.24	<0.06	<0.06	0.23	<0.1	**18**	**0.3**	<0.0002	<0.1	<0.1
	5/28/2013	200.7/200.8	**0.12**	0.13	<0.03	<0.03	0.16	<0.02	**4.0**	<0.1	<0.001	<0.01	<0.05
	11/6/2012	200.7/200.8	**0.5**	0.23	<0.12	<0.12	<0.2	<0.1	**34**	<2.5	<0.0002	<0.05	<0.2
	5/29/2012	200.7/200.8	**0.15**	0.17	0.018	7.1E-03	0.5	<0.005	**8.6**	**0.12**	<0.0002	<0.02	0.025
	11/1/2011	200.7/200.8	**0.047**	0.13	0.017	<0.006	0.17	<0.005	**1.5**	0.026	.<0.0002	<0.005	0.012
	5/23/2011	200.7/200.8	**0.42**	0.23	<0.03	<0.06	0.41	<0.025	**20**	<0.25	<0.0002	<0.0025	0.1
	11/16/2010	6010B	<0.4	<0.4	<0.12	<0.12	<1.0	<0.025	<1.0	<1.0	<0.0002	0.003	<0.4
	8/2/2010	6010B	<1.0	<1.0	<0.3	<0.3	<2.5	<0.25	**24**	<2.5	<0.0002	NL	<2.5
	4/20/2010	6010B	**0.17**	0.13	<0.03	<0.03	0.62	<0.025	**9.6**	<0.25	<0.0002	2.27E-03	<0.25
EP-9	8/30/2016	200.7/200.8	**0.25**	0.29	<0.06	<0.06	<0.2	<0.05	**1.8**	**0.31**	9.2E-05	<0.05	0.029
	3/2/2016	200.7/200.8	**0.11**	0.24	0.012	<0.03	0.26	<0.025	**0.27**	**0.079**	<0.0002	6.10E-03	0.023
	9/1/2015	200.7/200.8	**0.14**	0.22	0.033	<0.03	<0.1	<0.05	**0.4**	**0.18**	<0.0002	<0.05	<0.05
	3/25/2015	200.7/200.8	<0.2	0.11	<0.03	<0.03	0.12	<0.2	**0.5**	<0.2	<0.0002	<0.2	<0.05
	11/13/2014	200.7/200.8	**0.2**	0.25	<0.03	<0.03	0.19	<0.05	**0.25**	<1.0	<0.0002	<0.05	<0.1
	3/5/2014	200.7/200.8	**0.12**	0.18	<0.03	<0.03	0.26	<0.1	**2.7**	**0.15**	<0.0002	<0.1	<0.05
	10/15/2013	200.7/200.8	<0.1	0.18	<0.03	<0.03	0.1	<0.05	**3.3**	**0.11**	<0.0002	<0.05	<0.05
	5/28/2013	200.7/200.8	**0.095**	0.2	<0.03	<0.03	<0.1	<0.05	**3.4**	<0.1	<0.0002	<0.01	<0.05
	11/6/2012	200.7/200.8	**0.055**	0.15	<0.03	<0.03	0.13	<0.025	**0.94**	<0.25	<0.0002	<0.01	<0.05
	5/29/2012	200.7/200.8	**0.081**	0.17	9.6E-03	<0.006	0.11	<0.005	**4.7**	**0.074**	<0.0002	<0.02	0.014
	11/1/2011	200.7/200.8	**0.087**	0.2	<0.03	<0.03	0.037	<0.025	**1.9**	**0.051**	<0.0002	<0.02	<0.05
	5/23/2011	200.7/200.8	**0.1**	0.2	<0.03	<0.03	0.18	<0.025	**7.4**	<0.25	<0.0002	<0.01	<0.05
	11/16/2010	6010B	<0.4	<0.4	<0.12	<0.12	<1.0	<0.1	**6.7**	<1.0	<0.0002	0.003	<0.4
	4/20/2010	6010B	<0.1	0.14	<0.03	<0.03	0.62	<0.025	**29**	<0.25	<0.0002	2.20E-03	<0.25
EP-11	8/30/2016	200.7/200.8	**0.14**	0.18	0.02	<0.03	<0.1	<0.025	**1.5**	**0.19**	7.80E-05	8.30E-03	0.017
	3/2/2016	200.7/200.8	**0.086**	0.19	<0.03	<0.03	**2.9**	<0.025	**0.55**	**0.075**	7.70E-05	6.60E-03	0.021

8.15.2 EVAPORATION PONDS (EP-1 thru EP-12B)

Total Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	0.1	1.3	NE	**0.015**	NE	0.05	0.002	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00559	0.79	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	NE	0.08	14	0.015	0.43	0.1	6.3E-04	0.06	6
SAMPLE ID	DATE SAMPLED	METHOD											
EP-11	9/1/2015	200.7/200.8	**0.17**	0.17	0.036	<0.03	0.18	<0.05	**0.48**	**0.21**	<0.0002	<0.05	<0.05
	3/25/2015	200.7/200.8	<0.2	0.13	<0.03	<0.03	0.22	<0.2	**0.66**	<0.2	<0.0005	<0.2	<0.05
	11/12/2014	200.7/200.8	**0.14**	0.16	<0.03	<0.03	0.38	<0.05	**1.2**	<0.5	<0.0002	<0.05	<0.05
	3/5/2014	200.7/200.8	**0.042**	0.081	0.013	<0.006	0.79	<0.01	**0.99**	0.041	<0.0002	<0.01	0.019
	10/15/2013	200.7/200.8	<0.05	0.072	0.011	<0.006	0.42	<0.05	**0.41**	<0.05	<0.0002	<0.05	<0.01
	5/28/2013	200.7/200.8	**0.042**	0.064	0.01	<0.006	0.12	<0.01	**0.44**	<0.05	<0.0002	<0.005	<0.01
	11/6/2012	200.7/200.8	**0.017**	0.051	6.5E-03	<0.006	0.99	<0.005	**0.35**	0.014	<0.0002	<0.0025	0.024
	5/29/2012	200.7/200.8	**0.028**	0.086	9.9E-03	<0.006	0.48	<0.005	**0.8**	0.017	<0.0002	<0.0025	0.014
	11/1/2011	200.7/200.8	8.3E-03	0.071	<0.006	<0.006	**1.2**	<0.005	0.19	8.4E-03	<0.0002	<0.005	0.021
	5/23/2011	200.7/200.8	**0.061**	0.085	<0.03	<0.03	0.22	<0.025	**0.9**	<0.25	<0.0002	<0.01	<0.05
	11/16/2010	6010B	<0.1	0.14	**0.35**	<0.03	**1.3**	<0.025	**0.88**	<0.25	<0.0002	0.002	<0.1
	4/20/2010	6010B	<0.1	<0.1	<0.03	<0.03	0.42	<0.025	**1.6**	<0.25	<0.0002	1.97E-03	<0.25
EP-12A	8/30/2016	200.7/200.8	**0.017**	0.11	9.2E-03	<0.006	**1.1**	<0.005	0.38	0.028	9.30E-05	2.2E-03	0.018
	3/2/2016	200.7/200.8	**0.021**	0.16	0.011	<0.006	**2.3**	<0.025	0.39	0.022	<0.0002	4.1E-03	0.015
	9/1/2015	200.7/200.8	**0.029**	0.099	0.02	<0.006	0.28	<0.0025	0.14	0.038	<0.0002	2.9E-03	<0.01
	3/25/2015	200.7/200.8	**0.019**	0.076	0.012	<0.006	0.6	<0.01	0.095	<0.2	<0.0002	<0.01	0.015
	11/12/2014	200.7/200.8	<0.05	0.14	0.018	<0.006	**4.1**	<0.05	**0.44**	<0.05	<0.0002	<0.05	0.019
	3/5/2014	200.7/200.8	**0.019**	0.059	0.014	<0.006	**1.9**	<0.01	**0.95**	0.02	<0.0002	<0.01	0.021
	10/15/2013	200.7/200.8	<0.05	0.072	0.011	<0.006	0.65	<0.05	**0.38**	<0.05	<0.0002	<0.05	0.016
	5/28/2013	200.7/200.8	**0.018**	0.054	0.012	<0.006	0.67	<0.01	**0.23**	<0.02	<0.0002	<0.01	0.015
	11/6/2012	200.7/200.8	**0.015**	0.053	<0.006	<0.006	0.86	<0.005	**0.32**	0.013	<0.0002	<0.0025	0.02
	5/29/2012	200.7/200.8	**0.025**	0.083	9.7E-03	<0.006	0.52	<0.005	**0.75**	0.017	<0.0002	<0.0025	0.016
	11/1/2011	200.7/200.8	8.5E-03	0.065	6.7E-03	<0.006	**1.9**	<0.005	0.14	6.3E-03	3.5E-04	<0.005	0.04
	5/23/2011	200.7/200.8	**0.024**	0.061	0.02	<0.006	0.22	<0.005	**0.32**	<0.05	<0.0002	<0.0025	0.016
	11/16/2010	6010B	<0.1	<0.1	<0.03	<0.03	**1.1**	<0.025	**0.4**	<0.25	<0.0002	0.002	<0.1
	4/20/2010	6010B	<0.1	<0.1	<0.03	<0.03	0.92	<0.025	**0.28**	<0.25	<0.0002	1.75E-03	<0.25
EP-12B	8/30/2016	200.7/200.8	**0.018**	0.17	0.015	<0.006	**5.8**	<0.005	**0.47**	0.03	<0.0002	1.7E-03	0.043
	3/2/2016	200.7/200.8	**0.013**	0.2	0.014	<0.006	**3.7**	3.5E-03	**0.38**	0.024	5.4E-05	4.7E-03	0.025
	9/1/2015	200.7/200.8	**0.014**	0.13	0.013	<0.006	0.55	<0.0025	**0.26**	0.017	<0.0002	3.5E-03	0.015
	3/25/2015	200.7/200.8	**0.018**	0.1	0.011	<0.006	**1.1**	<0.01	**0.22**	<0.2	<0.0002	<0.01	0.02
	11/12/2014	200.7/200.8	<0.05	0.087	0.011	<0.006	**1.4**	<0.05	**0.27**	<0.05	<0.0002	<0.05	0.019
	3/5/2014	200.7/200.8	**0.014**	0.08	0.013	<0.006	**1.2**	<0.01	**0.55**	0.014	<0.0002	<0.01	0.014
	10/15/2013	200.7/200.8	**0.011**	0.08	7.6E-03	<0.006	0.38	<0.01	0.2	0.012	<0.0002	<0.01	0.023
	5/28/2013	200.7/200.8	**0.013**	0.049	0.013	<0.006	**1.3**	<0.01	**0.25**	<0.02	<0.0002	<0.01	0.025

8.15.2 EVAPORATION PONDS (EP-1 thru EP-12B)

Total Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	0.1	1.3	NE	**0.015**	NE	0.05	0.002	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00559	0.79	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	NE	0.08	14	0.015	0.43	0.1	6.3E-04	0.06	6
SAMPLE ID	DATE SAMPLED	METHOD											
EP-12B	11/6/2012	200.7/200.8	9.2E-03	0.04	6.9E-03	<0.006	**1.6**	<0.005	**0.47**	8.9E-03	4.2E-04	<0.0025	0.031
	5/29/2012	200.7/200.8	**0.016**	0.072	<0.006	<0.006	0.32	<0.005	0.12	0.017	<0.0002	<0.0025	<0.01
	11/1/2011	200.7/200.8	7.6E-03	0.063	7.3E-03	<0.006	**2.4**	<0.005	0.13	0.006	5.5E-04	<0.005	0.059
	5/23/2011	200.7/200.8	**0.016**	0.05	0.022	<0.006	0.59	<0.005	**0.29**	<0.05	<0.0002	<0.0025	0.02
	11/16/2010	6010B	<0.1	<0.1	<0.03	<0.03	0.84	<0.025	0.15	<0.25	<0.0002	<0.001	<0.25
	4/20/2010	6010B	<0.1	<0.1	<0.03	<0.03	**4.2**	<0.025	**0.35**	<0.25	<0.0002	2.91E-03	<0.25

DEFINITIONS

NE = Not established
NA = Not analyzed
Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.15.3 EVAPORATION PONDS (EP-1 thru EP-12B)

Dissolved Metals Analytical Result Summary

STANDARDS			PARAMETERS										
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.094	0.06	6
SAMPLE ID	**DATE SAMPLED**	**METHOD**												
EP-1	11/12/2014	200.7/200.8	**0.041**	0.12	<0.01	0.036	<0.03	**1.2**	<0.01	**0.66**	0.013	<0.025	<0.01	0.058
	3/5/2014	200.7/200.8	<0.01	0.13	<0.002	0.018	<0.006	0.78	<0.01	**0.53**	<0.01	<0.005	<0.01	0.021
	10/15/2013	200.7/200.8	0.01	0.1	<0.002	0.017	<0.006	0.42	<0.005	**0.45**	<0.01	<0.05	<0.01	0.017
	5/28/2013	200.7/200.8	<0.01	0.061	<0.01	<0.03	<0.03	0.25	<0.01	**0.43**	<0.01	<0.025	<0.01	<0.05
	11/6/2012	200.7/200.8	8.8E-03	0.034	<0.002	7.3E-03	<0.006	**2.2**	<0.005	**0.66**	7.2E-03	<0.005	1.1E-03	0.099
	5/29/2012	200.7/200.8	8.4E-03	0.046	<0.002	<0.006	<0.006	0.76	<0.005	0.15	0.011	<0.005	<0.005	0.074
	11/1/2011	200.7/200.8	4.7E-03	0.012	<0.002	<0.006	<0.006	1.0	<0.005	0.12	0.015	<0.005	<0.002	0.059
	5/23/2011	200.7/200.8	<0.01	0.014	<0.01	0.047	<0.03	**15**	<0.025	**0.34**	<0.25	<0.025	<0.005	0.13
	11/16/2010	6010B	<0.1	<0.1	<0.1	<0.03	<0.03	**4.3**	<0.025	0.15	<0.25	<0.025	<0.001	<0.25
	8/2/2010	6010B	<0.02	0.072	<0.002	0.013	<0.006	**2.5**	<0.005	**0.36**	<0.05	<0.025	<0.001	0.096
	4/20/2010	6010B	<0.02	0.085	<0.002	0.019	9.1E-03	**29**	<0.005	**0.24**	**0.066**	<0.005	4.42E-03	0.28
EP-2	8/29/2016	200.7/200.8	1.8E-02	0.12	<0.002	0.012	<0.006	**3**	<0.0025	**0.44**	**0.053**	<0.005	1.40E-03	0.052
	3/2/2016	200.7/200.8	9.8E-03	0.13	<0.002	6.9E-03	<0.006	**0.63**	0.00039	**0.22**	0.017	<0.005	4.40E-03	0.016
	9/1/2015	200.7/200.8	9.8E-03	0.13	<0.002	0.012	<0.006	**0.37**	<0.0025	**0.3**	0.011	<0.005	3.10E-03	0.02
	3/24/2015	200.7/200.8	<0.01	0.13	<0.002	0.017	<0.006	**4.0**	<0.2	**0.37**	<0.1	<0.005	<0.01	0.086
	11/12/2014	200.7/200.8	**0.011**	0.076	<0.002	9.9E-03	<0.006	**1.4**	<0.01	**0.21**	<0.01	<0.005	<0.01	0.056
	3/5/2014	200.7/200.8	<0.01	0.13	<0.005	0.016	<0.006	0.72	<0.01	**0.38**	0.042	<0.005	<0.01	0.01
	10/15/2013	200.7/200.8	<0.01	0.085	<0.002	7.1E-03	<0.006	0.27	<0.005	0.19	0.011	<0.005	<0.01	0.017
	5/28/2013	200.7/200.8	**0.012**	0.059	<0.01	<0.03	<0.03	**3.2**	<0.01	**0.48**	0.024	<0.025	<0.01	0.092
	11/6/2012	200.7/200.8	0.01	0.034	<0.002	0.012	<0.006	**1.2**	<0.005	**0.36**	4.1E-03	<0.005	<0.001	0.045
	5/29/2012	200.7/200.8	**0.011**	0.06	<0.002	<0.006	<0.006	0.46	<0.005	0.15	0.011	<0.005	<0.005	0.024
	11/1/2011	200.7/200.8	5.8E-03	0.042	<0.002	6.5E-03	<0.006	**1.1**	<0.005	0.11	5.7E-03	<0.005	<0.002	0.044
	5/23/2011	200.7/200.8	**0.014**	0.026	<0.01	<0.03	<0.03	**1.7**	<0.025	**0.33**	<0.25	<0.025	<0.005	<0.05
	11/16/2010	6010B	<0.1	<0.1	<0.01	<0.03	<0.03	0.71	<0.025	0.18	<0.25	<0.025	<0.001	<0.25
	8/2/2010	6010B	<0.1	<0.1	<0.01	<0.03	<0.03	**2.2**	<0.025	**0.27**	<0.25	<0.025	<0.001	<0.25
	4/20/2010	6010B	<0.02	0.057	<0.002	0.013	<0.006	**9.7**	<0.005	**0.34**	<0.25	<0.005	4.6E-03	0.12
EP-3	8/29/2016	200.7/200.8	**0.015**	0.15	<0.002	0.012	<0.006	**2.2**	<0.0025	**0.43**	0.049	<0.005	1.9E-03	0.041
	3/2/2016	200.7/200.8	**0.011**	0.16	<0.002	8.50E-03	<0.006	0.59	5.40E-04	**0.36**	0.021	<0.005	3.70E-03	9.90E-03
	9/1/2015	200.7/200.8	**0.013**	0.19	<0.002	0.014	<0.006	0.21	<0.0025	**0.27**	0.014	<0.005	<0.0025	0.014
	3/24/2015	200.7/200.8	<0.1	0.13	<0.002	8.8E-03	<0.006	0.9	<0.2	**0.31**	<0.1	<0.005	<0.01	0.055
	11/12/2014	200.7/200.8	**0.012**	0.1	<0.002	9.1E-03	<0.006	**1.6**	<0.01	**92**	<0.01	<0.005	<0.01	0.016
	3/5/2014	200.7/200.8	<0.01	0.13	<0.002	0.013	<0.006	0.65	<0.01	**0.41**	0.021	<0.005	<0.01	<0.01
	10/15/2013	200.7/200.8	0.01	0.085	<0.002	7.3E-03	<0.006	0.2	<0.005	0.15	0.015	<0.05	<0.01	0.012
	5/28/2013	200.7/200.8	**0.011**	0.088	<0.01	<0.03	<0.03	0.41	<0.01	**0.26**	0.013	<0.025	<0.01	0.072
	11/6/2012	200.7/200.8	8.1E-03	0.04	<0.002	6.5E-03	<0.006	1.0	<0.005	**0.52**	5.3E-03	<0.005	1.4E-03	0.076
	5/29/2012	200.7/200.8	**0.014**	0.076	<0.002	<0.006	<0.006	0.22	<0.005	0.1	0.022	<0.005	<0.01	0.033
	11/1/2011	200.7/200.8	6.6E-03	0.053	<0.002	<0.006	<0.006	**1.3**	<0.005	0.12	5.6E-03	<0.005	<0.005	0.03
	5/23/2011	200.7/200.8	**0.014**	0.033	<0.002	0.024	<0.006	**1.5**	<0.005	**0.34**	<0.05	<0.005	<0.005	0.033
	11/16/2010	6010B	<0.1	<0.1	<0.01	<0.03	<0.03	0.24	<0.025	0.15	<0.25	<0.025	<0.001	<0.25
	8/2/2010	6010B	<0.1	0.12	<0.002	9.3E-03	<0.006	**1.8**	<0.005	**0.37**	<0.05	<0.005	<0.001	<0.05
	4/20/2010	6010B	<0.1	<0.1	<0.01	<0.03	<0.03	0.88	<0.025	**0.42**	<0.25	<0.005	2.58E-03	<0.25
EP-4	8/29/2016	200.7/200.8	**0.016**	0.15	<0.002	0.013	<0.006	**1.3**	<0.0025	**0.37**	0.05	<0.005	2.2E-03	0.036
	3/2/2016	200.7/200.8	**0.019**	0.15	<0.002	8.8E-03	<0.006	0.49	5.9E-04	**0.43**	0.02	<0.005	3.5E-03	0.018
	9/1/2015	200.7/200.8	**0.014**	0.19	<0.002	0.013	<0.006	0.24	<0.0025	**0.28**	0.018	<0.005	2.6E-03	0.016
	3/24/2015	200.7/200.8	**0.022**	0.12	<0.002	7.9E-03	<0.006	0.46	<0.2	**0.4**	0.038	<0.005	<0.01	<0.01
	11/12/2014	200.7/200.8	**0.012**	0.11	<0.002	0.01	<0.006	**1.3**	1.3E-03	**0.27**	0.011	<0.005	3.9E-03	0.017
	3/5/2014	200.7/200.8	<0.01	0.13	<0.002	0.012	<0.006	0.58	<0.01	**0.43**	0.021	<0.005	<0.01	<0.01
	10/15/2013	200.7/200.8	**0.012**	0.084	<0.002	<0.006	<0.006	0.26	<0.005	0.15	0.017	<0.05	<0.01	0.013

8.15.3 EVAPORATION PONDS (EP-1 thru EP-12B)

Dissolved Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.094	0.06	6
SAMPLE ID	**DATE SAMPLED**	**METHOD**												
EP-4	5/28/2013	200.7/200.8	**0.013**	0.085	<0.01	<0.03	<0.03	0.31	<0.01	0.19	0.019	<0.025	<0.01	<0.05
	11/6/2012	200.7/200.8	7.6E-03	0.068	<0.002	<0.006	<0.006	0.29	<0.005	**0.59**	<0.01	<0.005	<0.001	0.13
	5/29/2012	200.7/200.8	**0.017**	0.06	<0.002	6.7E-03	<0.006	0.2	<0.005	0.061	0.024	<0.005	<0.005	0.036
	11/1/2011	200.7/200.8	8.6E-03	0.073	<0.002	<0.006	<0.006	0.78	<0.005	0.2	8.4E-03	<0.005	<0.005	0.022
	5/23/2011	200.7/200.8	**0.017**	0.067	<0.002	0.024	<0.006	0.19	<0.005	**0.33**	<0.05	<0.005	<0.005	0.019
	11/16/2010	6010B	<0.1	<0.1	<0.01	<0.03	<0.03	0.22	<0.025	0.14	<0.25	<0.025	<0.001	<0.25
	8/2/2010	6010B	<0.1	<0.1	<0.01	<0.03	<0.03	1.0	<0.025	**0.33**	<0.25	<0.025	0.002	<0.25
	4/20/2010	6010B	<0.1	<0.1	<0.01	<0.03	<0.03	0.95	<0.025	**0.41**	<0.25	<0.005	2.92E-03	<0.25
EP-5	8/29/2016	200.7/200.8	**0.025**	0.19	<0.002	0.01	<0.006	0.1	<0.01	**0.37**	0.039	<0.005	0.004	0.023
	3/2/2016	200.7/200.8	**0.02**	0.15	<0.002	9.7E-03	<0.006	0.45	<0.01	**0.43**	0.019	<0.005	3.40E-03	0.02
	9/1/2015	200.7/200.8	**0.025**	0.14	<0.002	0.017	<0.006	0.058	<0.005	**0.32**	0.031	<0.005	<0.005	0.014
	3/24/2015	200.7/200.8	<0.2	0.13	<0.002	7.5E-03	<0.006	0.51	<0.2	**0.44**	<0.1	<0.005	<0.01	<0.01
	11/12/2014	200.7/200.8	**0.025**	0.13	<0.002	8.9E-03	<0.006	0.24	<0.02	**0.48**	<0.02	<0.005	<0.02	<0.01
	3/5/2014	200.7/200.8	**0.012**	0.1	<0.01	<0.03	<0.03	0.46	<0.01	**0.55**	0.021	<0.025	<0.01	<0.05
	10/15/2013	200.7/200.8	**0.013**	0.089	<0.002	7.9E-03	<0.006	0.27	<0.005	0.18	0.018	<0.05	<0.01	0.012
	5/28/2013	200.7/200.8	**0.013**	0.085	<0.01	<0.03	<0.03	0.28	<0.01	0.16	0.019	<0.025	<0.1	<0.05
	11/6/2012	200.7/200.8	7.5E-03	0.07	<0.002	<0.006	<0.006	0.25	<0.005	**0.45**	<0.05	<0.005	<0.001	0.034
	5/29/2012	200.7/200.8	**0.017**	0.059	<0.002	6.9E-03	<0.006	0.19	<0.005	0.065	0.023	<0.005	<0.01	0.023
	11/1/2011	200.7/200.8	9.8E-03	0.085	<0.002	0.007	<0.006	0.3	<0.005	**0.24**	7.5E-03	<0.005	<0.005	<0.1
	5/23/2011	200.7/200.8	**0.018**	0.086	<0.002	0.023	<0.006	0.049	<0.005	**0.21**	<0.05	<0.005	<0.005	0.015
	11/16/2010	6010B	<0.1	<0.1	<0.01	0.031	<0.03	0.37	<0.025	0.19	<0.25	<0.025	<0.001	<0.25
	8/2/2010	6010B	<0.1	<0.1	<0.01	<0.03	<0.03	0.42	<0.025	**0.3**	<0.25	<0.025	0.003	<0.25
	4/20/2010	6010B	<0.1	0.12	<0.01	<0.03	<0.03	0.71	<0.025	**0.49**	<0.25	<0.005	2.71E-03	<0.25
EP-6	8/29/2016	200.7/200.8	**0.028**	0.19	<0.002	0.012	<0.006	0.046	<0.005	**0.38**	0.037	<0.005	3.90E-03	0.24
	3/2/2016	200.7/200.8	**0.02**	0.16	<0.002	9.9E-03	<0.006	0.57	5.9E-04	**0.46**	0.019	<0.005	3.70E-03	0.015
	9/1/2015	200.7/200.8	**0.03**	0.13	<0.01	0.014	<0.03	0.028	<0.005	**0.33**	0.035	<0.005	<0.005	0.014
	3/25/2015	200.7/200.8	<0.2	0.12	<0.002	7.9E-03	<0.006	0.4	<0.2	**0.39**	<0.2	<0.005	<0.01	0.011
	11/12/2014	200.7/200.8	**0.027**	0.14	<0.01	<0.03	<0.03	0.2	<0.02	**0.53**	0.025	<0.025	<0.02	<0.05
	3/5/2014	200.7/200.8	**0.015**	0.11	<0.002	9.1E-03	<0.006	0.45	<0.01	**0.6**	0.024	<0.005	<0.01	0.011
	10/15/2013	200.7/200.8	<0.05	0.098	<0.002	8.6E-03	<0.006	0.077	<0.005	**0.22**	<0.05	<0.05	<0.05	<0.01
	5/28/2013	200.7/200.8	**0.021**	0.096	<0.01	<0.03	<0.03	<0.1	<0.01	0.15	0.02	<0.025	<0.01	0.069
	11/6/2012	200.7/200.8	**0.022**	0.11	<0.02	<0.06	<0.06	0.053	<0.05	0.1	0.014	<0.05	<0.005	<0.1
	5/29/2012	200.7/200.8	**0.02**	0.094	<0.002	0.011	<0.006	0.11	<0.005	**0.41**	0.017	<0.005	<0.01	0.019
	11/1/2011	200.7/200.8	**0.02**	0.11	<0.002	0.014	<0.006	0.076	<0.005	0.19	0.011	<0.005	<0.01	0.011
	5/23/2011	200.7/200.8	**0.016**	0.11	<0.01	<0.03	<0.03	0.13	<0.025	0.13	<0.25	<0.025	<0.005	<0.05
	11/16/2010	6010B	<0.1	0.12	<0.01	<0.03	<0.03	0.18	<0.025	**0.3**	<0.25	<0.025	0.001	<0.25
	8/2/2010	6010B	<0.1	<0.1	<0.01	<0.03	<0.03	0.033	<0.025	0.045	<0.25	<0.025	0.002	<0.25
	4/20/2010	6010B	<0.02	0.068	<0.002	<0.006	<0.006	0.38	<0.005	**0.43**	<0.05	<0.005	1.69E-03	0.5
EP-7	8/30/2016	200.7/200.8	**0.16**	0.2	<0.01	0.014	<0.03	<0.1	<0.025	**1.3**	**0.18**	<0.025	8.8E-03	0.03
	3/2/2016	200.7/200.8	**0.078**	0.18	<0.01	0.009	<0.03	0.52	0.0016	**0.42**	**0.066**	<0.025	6.0E-03	0.02
	9/1/2015	200.7/200.8	**0.15**	0.17	<0.01	**0.062**	<0.03	<0.1	<0.05	**0.38**	**0.18**	<0.025	<0.05	<0.05
	3/25/2015	200.7/200.8	<0.2	0.15	<0.01	<0.03	<0.03	<0.1	<0.2	**0.53**	<0.2	<0.025	<0.01	<0.05
	11/12/2014	200.7/200.8	**0.11**	0.19	<0.01	<0.03	<0.03	0.35	<0.02	**0.8**	<0.2	<0.025	<0.02	<0.05
	3/5/2014	200.7/200.8	**0.11**	0.11	<0.01	<0.03	<0.03	0.15	<0.1	**2.1**	**0.13**	<0.025	<0.1	<0.05
	10/15/2013	200.7/200.8	**0.13**	0.096	<0.01	<0.03	<0.03	<0.1	<0.025	**0.38**	**0.19**	<0.025	<0.05	<0.05
	5/28/2013	200.7/200.8	**0.11**	0.11	<0.01	<0.03	<0.03	<0.1	<0.02	**2.9**	**0.11**	<0.025	<0.02	<0.05
	11/6/2012	200.7/200.8	**0.12**	0.14	<0.02	<0.06	<0.06	<0.2	<0.05	**0.72**	<0.5	<0.05	<0.02	<0.1
	5/29/2012	200.7/200.8	**0.081**	0.14	<0.02	<0.06	<0.06	<0.2	<0.05	**0.74**	**0.086**	<0.05	<0.02	<0.1
	11/1/2011	200.7/200.8	<0.05	0.09	<0.01	<0.03	<0.03	<0.1	<0.025	**0.6**	<0.05	<0.025	<0.05	<0.05
	5/23/2011	200.7/200.8	**0.068**	0.13	<0.01	<0.03	<0.03	<0.1	<0.025	**1.9**	<0.25	<0.025	<0.01	<0.05

8.15.3 EVAPORATION PONDS (EP-1 thru EP-12B)

Dissolved Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.094	0.06	6
SAMPLE ID	**DATE SAMPLED**	**METHOD**												
EP-7	11/16/2010	6010B	<0.2	<0.2	<0.02	<0.06	<0.06	0.19	<0.05	**2.3**	<0.5	<0.05	0.003	<0 .5
	8/2/2010	6010B	<0.4	<0.4	<0.04	<0.12	<0.12	<0.2	<0.1	**3.4**	<1.0	<0.1	0.003	<1.0
	4/20/2010	6010B	<0.1	<0.1	<0.01	<0.03	<0.03	<0.1	<0.025	**2.5**	<0.25	<0.025	2.28E-03	<0.25
EP-8	8/30/2016	200.7/200.8	**0.18**	0.2	<0.01	0.014	<0.03	<0.1	<0.025	**1.4**	**0.22**	<0.025	9.60E-03	0.027
	9/1/2015	200.7/200.8	**0.15**	0.17	<0.01	0.035	<0.03	<0.1	<0.05	**0.38**	**0.18**	<0.025	<0.05	0.051
	3/25/2015	200.7/200.8	<0.2	0.15	<0.01	<0.03	<0.03	<0.1	<0.2	**0.53**	<0.2	<0.025	<0.01	<0.05
	11/12/2014	200.7/200.8	**0.11**	0.17	<0.01	<0.03	<0.03	0.23	<0.02	**0.77**	<0.2	<0.025	<0.02	<0.05
	3/5/2014	200.7/200.8	**0.11**	0.11	<0.01	<0.03	<0.03	0.14	<0.1	**2.1**	0.12	<0.025	<0.1	<0.05
	10/15/2013	200.7/200.8	**0.37**	0.22	<0.01	0.039	<0.03	<0.1	**0.064**	**18**	**0.47**	<0.1	<0.05	<0.05
	5/28/2013	200.7/200.8	**0.11**	0.12	<0.01	<0.03	<0.03	<0.1	<0.02	**3.0**	**0.088**	<0.025	<0.02	<0.05
	11/6/2012	200.7/200.8	**0.47**	0.26	<0.04	<0.12	<0.12	<0.4	<0.1	**36**	<1.0	<0.1	1.1E-03	<0.2
	5/29/2012	200.7/200.8	**0.16**	0.18	<0.02	<0.06	<0.06	<0.2	<0.05	**7.3**	**0.13**	<0.05	<0.02	<0.1
	11/1/2011	200.7/200.8	**0.05**	0.13	<0.01	<0.03	<0.03	<0.1	<0.025	**1.1**	0.03	<0.025	<0.02	<0.05
	5/23/2011	200.7/200.8	**0.38**	0.25	<0.02	<0.06	<0.06	<0.1	<0.05	**20**	<0.5	<0.05	<0.05	<0.1
	11/16/2010	6010B	<0.4	<0.4	<0.04	<0.12	<0.12	0.11	<0.1	**9.1**	<1.0	<0.1	0.003	1.0
	8/2/2010	6010B	**0.77**	<0.4	<0.04	<0.12	<0.12	<0.2	<0.1	**22**	<1.0	<0.1	0.001	1.0
	4/20/2010	6010B	<0.2	<0.2	<0.02	<0.06	<0.06	0.26	<0.05	**10**	<0.05	<0.05	1.66E-03	<0.5
EP-9	8/30/2016	200.7/200.8	**0.27**	0.31	<0.02	<0.06	<0.06	<0.2	<0.05	**1.9**	**0.29**	<0.025	8.00E-03	0.048
	3/2/2016	200.7/200.8	**0.12**	0.22	<0.01	<0.03	<0.03	0.048	<0.05	0.068	0.094	<0.025	6.30E-03	0.03
	9/1/2015	200.7/200.8	**0.12**	0.2	<0.01	**0.064**	<0.03	<0.1	<0.05	**0.35**	**0.15**	<0.025	<0.05	<0.05
	3/25/2015	200.7/200.8	<0.2	0.17	<0.01	<0.03	<0.03	<0.1	<0.2	**0.52**	<0.2	<0.025	<0.01	0.079
	11/13/2014	200.7/200.8	**0.16**	0.25	<0.01	<0.03	<0.03	<0.1	<0.05	0.18	<0.5	<0.025	<0.05	0.051
	3/5/2014	200.7/200.8	0.1	0.19	<0.01	<0.03	<0.03	0.14	<0.1	**2.8**	0.13	<0.025	<0.1	<0.05
	10/15/2013	200.7/200.8	0.1	0.19	<0.01	<0.03	<0.03	<0.1	<0.025	**3.3**	**0.15**	<0.025	<0.05	<0.05
	5/28/2013	200.7/200.8	**0.07**	0.19	<0.01	<0.03	<0.03	<0.01	<0.02	**3.0**	**0.091**	<0.05	<0.02	<0.05
	11/6/2012	200.7/200.8	**0.048**	0.17	<0.02	<0.06	<0.06	<0.2	<0.05	**0.92**	<0.5	<0.05	<0.01	<0.1
	5/29/2011	200.7/200.8	**0.086**	0.18	<0.02	<0.06	<0.06	<0.2	<0.05	**4.8**	**0.084**	<0.05	<0.02	<0.1
	11/1/2011	200.7/200.8	**0.089**	0.2	<0.01	<0.03	<0.03	<0.1	<0.025	**1.3**	**0.057**	<0.025	<0.05	<0.05
	5/23/2011	200.7/200.8	**0.083**	0.21	<0.01	<0.03	<0.03	<0.1	<0.025	**6.8**	<0.25	<0.025	<0.02	<0.05
	11/16/2010	6010B	<0.4	<0.4	<0.04	<0.12	<0.12	<0.4	<0.1	**5.3**	<1.0	<0.1	0.003	<1.0
	4/20/2010	6010B	<0.2	0.14	<0.01	<0.03	<0.03	0.17	<0.025	**2.6**	<0.25	<0.025	2.21E-03	<0.25
EP-11	8/30/2016	200.7/200.8	**0.16**	0.19	<0.01	0.016	<0.03	<0.1	<0.025	**1.4**	**0.21**	<0.025	9.10E-03	0.045
	3/2/2016	200.7/200.8	**0.076**	0.2	<0.01	<0.03	<0.03	0.22	0.0023	**0.4**	**0.088**	<0.025	5.70E-03	0.028
	9/1/2015	200.7/200.8	**0.15**	0.16	<0.01	0.042	<0.03	<0.1	<0.05	**0.4**	**0.17**	<0.025	<0.05	<0.05
	3/25/2015	200.7/200.8	<0.2	0.15	<0.01	<0.03	<0.03	<0.2	<0.2	**0.5**	<0.2	<0.025	<0.01	<0.05
	11/12/2014	200.7/200.8	0.1	0.16	<0.01	<0.03	<0.03	0.31	<0.02	**1.0**	<0.5	<0.025	<0.05	0.061
	3/5/2014	200.7/200.8	**0.04**	0.074	<0.002	0.011	<0.006	0.48	<0.01	**0.99**	0.039	<0.025	<0.01	0.013
	10/15/2013	200.7/200.8	<0.05	0.067	<0.002	9.6E-03	<0.006	0.21	<0.005	**0.41**	<0.05	<0.05	<0.05	<0.01
	5/28/2013	200.7/200.8	**0.04**	0.068	<0.01	<0.03	<0.03	<0.1	<0.01	**0.48**	0.022	<0.025	<0.01	<0.05
	11/6/2012	200.7/200.8	**0.013**	0.056	<0.002	<0.006	<0.006	0.79	<0.005	**0.4**	0.011	<0.005	1.2E-03	0.043
	5/29/2011	200.7/200.8	**0.03**	0.081	<0.002	0.011	<0.006	0.16	<0.005	**0.78**	0.019	<0.005	<0.01	0.023
	11/1/2011	200.7/200.8	0.008	0.068	<0.002	<0.006	<0.006	0.89	<0.005	0.19	7.9E-03	<0.005	<0.005	0.015
	5/23/2011	200.7/200.8	**0.055**	0.087	<0.01	<0.03	<0.03	0.066	<0.025	**0.89**	<0.25	<0.025	<0.01	<0.05
	11/16/2010	6010B	<0.1	0.12	<0.01	<0.03	<0.03	0.48	<0.025	**0.64**	<0.25	<0.025	0.002	<0.25
	4/20/2010	6010B	<0.1	<0.1	<0.01	<0.03	<0.03	0.15	<0.025	**1.6**	<0.25	<0.025	2.11E-03	<0.25
EP-12A	8/30/2016	200.7/200.8	**0.018**	0.12	<0.002	0.01	<0.006	1.0	<0.005	**0.41**	0.03	<0.005	2.0E-03	0.042
	3/2/2016	200.7/200.8	**0.019**	0.14	<0.002	9.8E-03	<0.006	0.79	0.0011	**0.39**	0.01	<0.005	3.5E-03	0.018
	9/1/2015	200.7/200.8	**0.026**	0.09	<0.002	0.017	<0.006	0.17	<0.0025	0.14	0.031	<0.005	2.5E-03	<0.01
	3/25/2015	200.7/200.8	<0.2	0.076	<0.002	0.01	<0.006	0.48	<0.2	0.088	<0.2	<0.005	<0.01	0.01
	11/12/2014	200.7/200.8	**0.021**	0.11	<0.02	<0.06	<0.06	2.2	<0.02	**0.43**	<0.02	<0.05	<0.02	<0.1

8.15.3 EVAPORATION PONDS (EP-1 thru EP-12B)

Dissolved Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.094	0.06	6
SAMPLE ID	**DATE SAMPLED**	**METHOD**												
EP-12A	3/5/2014	200.7/200.8	**0.016**	0.055	<0.002	0.011	<0.006	1.4	<0.01	**1.0**	0.017	<0.005	<0.01	
	10/15/2013	200.7/200.8	<0.05	0.066	<0.002	9.8E-03	<0.006	0.53	<0.005	**0.37**	<0.05	<0.025	<0.05	0.013
	5/28/2013	200.7/200.8	**0.015**	0.057	<0.01	<0.03	<0.03	0.49	<0.01	**0.25**	0.018	<0.025	<0.01	0.069
	11/6/2012	200.7/200.8	**0.012**	0.057	<0.002	<0.006	<0.006	0.7	<0.005	**0.38**	0.01	<0.005	1.2E-03	0.05
	5/29/2012	200.7/200.8	**0.026**	0.075	<0.002	0.011	<0.006	0.16	<0.005	**0.73**	0.018	<0.005	<0.01	0.08
	11/1/2011	200.7/200.8	7.2E-03	0.058	<0.002	<0.006	<0.006	1.0	<0.005	0.13	5.9E-03	<0.005	<0.005	0.022
	5/23/2011	200.7/200.8	**0.025**	0.063	<0.002	0.021	<0.006	0.098	<0.005	**0.31**	<0.05	<0.005	<0.005	0.017
	11/16/2010	6010B	<0.1	<0.1	<0.01	<0.03	<0.03	0.4	<0.025	**0.27**	<0.25	<0.025	0.002	<0.25
	4/20/2010	6010B	<0.2	0.074	<0.002	<0.006	<0.006	0.55	<0.005	**0.28**	<0.05	<0.005	1.66E-03	<0.05
EP-12B	8/30/2016	200.7/200.8	**0.016**	0.13	<0.002	1.3E-02	<0.006	**2.6**	<0.01	**0.43**	0.031	<0.005	1.3E-03	0.045
	3/2/2016	200.7/200.8	**0.013**	0.16	<0.002	8.7E-03	<0.006	**1.1**	1.2E-03	**0.3**	0.02	<0.005	4.10E-03	0.016
	9/1/2015	200.7/200.8	0.01	0.12	<0.002	9.2E-03	<0.006	0.35	<0.01	**0.27**	0.014	<0.005	<0.01	0.015
	3/25/2015	200.7/200.8	<0.2	0.11	<0.005	0.011	<0.006	**1.1**	<0.2	**0.22**	,0.2	<0.005	<0.01	0.016
	11/12/2014	200.7/200.8	<0.02	0.076	<0.002	0.01	<0.006	**1.3**	<0.02	**0.24**	<0.02	<0.005	<0.02	0.023
	3/5/2014	200.7/200.8	**0.012**	0.073	<0.002	0.013	<0.006	0.61	<0.01	**0.57**	0.017	<0.005	<0.01	<0.01
	10/15/2013	200.7/200.8	<0.05	0.074	<0.002	8.3E-03	<0.006	0.26	<0.005	0.2	<0.05	<0.005	<0.05	0.016
	5/28/2013	200.7/200.8	<0.01	0.052	<0.01	<0.03	<0.03	0.78	<0.01	**0.27**	0.014	<0.025	<0.01	<0.05
	11/6/2012	200.7/200.8	**0.013**	0.042	<0.002	6.8E-03	<0.006	**1.1**	<0.005	**0.52**	0.012	<0.005	8.2E-03	0.072
	5/29/2012	200.7/200.8	**0.019**	0.067	<0.002	7.1E-03	<0.006	0.18	<0.005	0.11	0.024	<0.005	<0.01	0.015
	11/1/2011	200.7/200.8	6.5E-03	0.055	<0.002	<0.006	<0.006	0.98	<0.005	0.12	5.8E-03	<0.005	<0.005	0.024
	5/23/2011	200.7/200.8	**0.015**	0.05	<0.002	0.022	<0.006	0.27	<0.005	**0.27**	<0.05	<0.005	<0.005	0.019
	11/16/2010	6010B	<0.1	<0.1	<0.01	<0.03	<0.03	0.84	<0.025	0.15	<0.25	<0.025	<0.001	<0.25
	4/20/2010	6010B	<0.2	0.064	<0.002	<0.006	<0.006	**1.8**	<0.005	**0.35**	<0.05	<0.005	2.97E-03	<0.05

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.15.4 EVAPORATION PONDS (EP-1 thru EP-12B)

Volatile Organic Compound Analytical Result Summary

STANDARDS			PARAMETERS												
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	Bromo methane (mg/L)	2-Butanone (mg/L)	Carbon disulfide (mg/L)	Chloroform (mg/L)	Chloro methane (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	Methylene Chloride (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	0.01	NE	NE	NE	0.1
40 CFR 141.62 MCL			NE	NE	NE	NE	NE	NE	NE	NE	NE	**0.08**	NE	NE	NE	**0.005**
NMED Tap Water (JUL 2015)			NE	NE	**1.65E-03**	NE	NE	**14.1**	**0.00754**	**5.56**	**0.81**	0.00229	**0.0203**	NE	NE	0.106
EPA RSL for Tap Water (MAY 2016)			**0.015**	**0.12**	1.7E-04	**1.1E-03**	**0.036**	14.0	0.0075	5.6	0.81	2.2E-04	0.19	**1**	**0.66**	0.011
SAMPLE ID	**DATE SAMPLED**	**METHOD**														
EP-1	11/12/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/5/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	10/15/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	5/28/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	11/6/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.41		<0.1	0.32	<0.01	<0.03	<0.03		
	5/29/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.61		0.11	<0.1	<0.01	<0.03	<0.01		
	11/1/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	1.4		0.18	<0.1	<0.01	<0.03	<0.01		
	5/23/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	1.8		0.2	<0.1	<0.01	<0.03	<0.01		
	8/2/2010	8260B	**0.016**	<0.005	**0.016**	**0.044**	**0.07**	0.73		0.086	<0.05	<0.005	<0.005	<0.005		
	4/20/2010	8260B	5.5E-03	1.8E-03	**0.011**	**0.027**	**0.045**	1.7		0.1	<0.01	<0.01	<0.01	<0.01		
EP-2	8/29/2016	8260B	1.9E-04	<0.001	<0.002	<0.004	2.4E-04	0.14		8.1E-03	0.017	<0.001	<0.003	<0.003	<0.001	
	3/2/2016	8260B	7.1E-03	1.8E-03	0.001	1.6E-03	1.6E-03	0.13		6.1E-03	0.064	<0.005	<0.015	<0.015	8.0E-04	
	9/1/2015	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.01		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/24/2015	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.52		<0.1	<0.1	<0.1	<0.03	<0.03		
	11/12/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.01		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/5/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.67		<0.1	0.11	<0.01	<0.03	<0.03		
	10/15/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.6		<0.1	<0.1	<0.01	<0.03	<0.03		
	5/28/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	4.6		0.47	<0.1	<0.01	<0.03	<0.03		
	11/6/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	2.4		0.38	<0.1	<0.01	<0.03	<0.03		
	5/29/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.43		<0.1	<0.1	<0.01	<0.03	<0.01		
	11/1/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.51		<0.1	<0.1	<0.01	<0.03	<0.01		
	5/23/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	0.12	<0.01	<0.03	<0.01		
	8/2/2010	8260B	<0.005	<0.0058	<0.01	<0.02	<0.02	0.27		<0.05	<0.05	<0.005	<0.005	<0.005		
	4/20/2010	8260B	4.6E-03	1.4E-03	**0.01**	**0.032**	**0.052**	0.15		<0.01	0.021	<0.01	<0.01	<0.01		
EP-3	8/29/2016	8260B	2.8E-04	<0.001	<0.002	<0.004	2.4E-04	0.05	<0.003	0.004	0.021	<0.001	<0.003	<0.003		
	3/2/2016	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.032	**0.016**	3.7E-03	0.12	<0.005	1.4E-03	<0.015		
	9/1/2015	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.3		<0.1	<0.01	<0.01	<0.03	<0.03		
	3/24/2015	8260B	<0.01	<0.01	<0.02	<0.04	<0.01	0.28		<0.1	<0.1	<0.01	<0.03	<0.03		
	11/12/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.3		<0.1	<0.01	<0.01	<0.03	<0.03		
	3/5/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.3		<0.1	0.14	<0.01	<0.03	<0.03		
	10/15/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.16		<0.1	<0.01	<0.01	<0.03	<0.03		
	5/28/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.2		<0.1	<0.1	<0.01	<0.03	<0.03		
	11/6/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.24		<0.1	0.38	<0.01	<0.03	<0.03		
	5/29/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.21		<0.1	<0.1	<0.01	<0.03	<0.01		
	11/1/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.11		<0.1	<0.1	<0.01	<0.03	<0.01		
	5/23/2011	8206B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	0.13	<0.01	<0.03	<0.01		
	8/2/2010	8260B	<0.005	<0.005	<0.1	<0.02	<0.02	0.22		<0.05	<0.05	<0.005	<0.005	<0.005		
	4/20/2010	8260B	<0.001	<0.001	**2.3E-03**	**7.6E-03**	0.012	0.21		0.014	0.043	<0.001	<0.001	<0.001		
EP-4	8/29/2016	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.022		1.7E-03	0.014	<0.001	<0.003	<0.003		
	3/2/2016	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.02		2.7E-03	0.023	<0.005	<0.015	<0.015		
	9/1/2015	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/24/2015	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	11/12/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/5/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.31		<0.1	0.15	<0.01	<0.03	<0.01		
	10/15/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.12		<0.1	<0.1	<0.01	<0.03	<0.03		
	5/28/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.12		<0.1	<0.1	<0.01	<0.03	<0.03		
	11/6/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.13		<0.1	0.78	<0.01	<0.03	<0.03		
	5/29/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.01		

8.15.4 EVAPORATION PONDS (EP-1 thru EP-12B)

Volatile Organic Compound Analytical Result Summary

STANDARDS			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	Bromo methane (mg/L)	2-Butanone (mg/L)	Carbon disulfide (mg/L)	Chloroform (mg/L)	Chloro methane (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	Methylene Chloride (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	0.01	NE	NE	NE	0.1
40 CFR 141.62 MCL			NE	NE	NE	NE	NE	NE	NE	NE	NE	**0.08**	NE	NE	NE	**0.005**
NMED Tap Water (JUL 2015)			NE	NE	**1.65E-03**	NE	NE	**14.1**	**0.00754**	**5.56**	**0.81**	0.00229	**0.0203**	NE	NE	0.106
EPA RSL for Tap Water (MAY 2016)			**0.015**	**0.12**	1.7E-04	**1.1E-03**	**0.036**	14.0	0.0075	5.6	0.81	2.2E-04	0.19	**1**	**0.66**	0.011
SAMPLE ID	**DATE SAMPLED**	**METHOD**														
EP-4	11/1/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.11		<0.1	<0.1	<0.01	<0.03	<0.01		
	5/23/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.12		<0.1	0.14	<0.01	<0.03	<0.01		
	8/2/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.1		0.011	<0.01	<0.001	<0.001	<0.001		
	4/20/2010	8260B	<0.001	<0.001	<0.002	**0.005**	7.3E-03	0.19		0.014	0.041	<0.001	<0.001	<0.001		
EP-5	8/29/2016	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.013		<0.01	<0.01	<0.001	2.5E-04	<0.003		
	3/2/2016	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.014		1.7E-03	0.01	<0.005	<0.015	<0.015		
	9/1/2015	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/24/2015	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	11/12/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/5/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.28		<0.1	0.12	<0.01	<0.03	<0.03		
	10/15/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	5/28/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.11		<0.1	<0.1	<0.01	<0.03	<0.03		
	11/6/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	**1.3**	<0.01	<0.03	<0.03		
	5/29/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.01		
	11/1/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.01		
	5/23/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	0.15	<0.01	<0.03	<0.01		
	8/2/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.045		<0.1	<0.1	<0.01	<0.01	<0.01		
	4/20/2010	8260B	<0.001	<0.001	<0.002	<0.004	4.6E-03	0.13		0.011	0.047	<0.001	<0.001	<0.001		
EP-6	8/29/2016	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.009		<0.01	<0.01	<0.001	3.8E-04	<0.003		<0.003
	3/2/2016	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.015		<0.05	3.5E-03	<0.005	<0.015	<0.015		1.1E-03
	9/1/2015	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/25/2015	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	11/12/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/5/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.14		<0.1	<0.1	<0.01	<0.03	<0.03		
	10/15/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	5/28/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	0.11	<0.01	<0.03	<0.03		
	11/6/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	5/29/2012	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01	<0.01	<0.001	<0.003	<0.001		
	11/1/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.01		
	5/23/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.01		
	8/2/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.02		<0.1	<0.1	<0.01	<0.01	<0.01		
	4/20/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.044		<0.1	<0.1	<0.001	<0.001	<0.001		
EP-7	8/30/2016	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/2/2016	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.018		<0.05	<0.05	<0.005	6.3E-03	<0.03		
	9/1/2015	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/25/2015	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	11/12/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/5/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	10/15/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	5/28/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	11/6/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	5/29/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.01		
	11/1/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.01		
	5/23/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.01		
	8/2/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.061		<0.01	<0.01	<0.001	<0.001	<0.001		
	4/20/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.023		<0.01	<0.01	<0.001	<0.001	<0.001		
EP-8	8/30/2016	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	9/1/2015	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/25/2015	8260B	<0.01	<0.01	<0.02	<0.01	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	11/12/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/5/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	10/15/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		

8.15.4 EVAPORATION PONDS (EP-1 thru EP-12B)

Volatile Organic Compound Analytical Result Summary

STANDARDS			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	Bromo methane (mg/L)	2-Butanone (mg/L)	Carbon disulfide (mg/L)	Chloroform (mg/L)	Chloro methane (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	Methylene Chloride (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	0.01	NE	NE	NE	0.1
40 CFR 141.62 MCL			NE	NE	NE	NE	NE	NE	NE	NE	NE	**0.08**	NE	NE	NE	**0.005**
NMED Tap Water (JUL 2015)			NE	NE	**1.65E-03**	NE	NE	**14.1**	**0.00754**	**5.56**	**0.81**	0.00229	**0.0203**	NE	NE	0.106
EPA RSL for Tap Water (MAY 2016)			**0.015**	**0.12**	1.7E-04	**1.1E-03**	**0.036**	14.0	0.0075	5.6	0.81	2.2E-04	0.19	**1**	**0.66**	0.011
SAMPLE ID	**DATE SAMPLED**	**METHOD**														
EP-8	5/28/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	11/6/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.1	<0.03	<0.03		
	5/29/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.1	<0.03	<0.01		
	11/1/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.1	<0.03	<0.01		
	5/23/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.01		
	8/2/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.066		<0.01	<0.01	<0.001	<0.001	<0.001		
	4/20/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.038		<0.01	<0.01	<0.001	<0.001	<0.001		
EP-9	8/30/2016	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/2/2016	8260B	5.5E-04	<0.001	<0.002	<0.002	2.9E-04	0.016		1.5E-03	<0.01	<0.001	<0.003	<0.003		
	9/1/2015	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/25/2015	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	11/12/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/5/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	10/15/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	5/28/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	11/6/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	5/29/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.01		
	11/1/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.01		
	5/23/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.01		
	4/20/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.015		<0.01	<0.01	<0.001	<0.001	<0.001		
EP-11	8/30/2016	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/2/2016	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.012		0.002	<0.05	<0.005	0.0065	<0.015		
	9/1/2015	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/25/2015	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	11/12/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/5/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	10/15/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	5/28/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	11/6/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.12		<0.1	0.59	<0.01	<0.03	<0.03		
	5/29/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.01		
	11/1/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.03	<0.1	<0.01	<0.03	<0.01		
	5/23/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.01		
	4/20/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.039		<0.01	<0.01	<0.001	<0.001	<0.001		
EP-12A	8/30/2016	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1	<0.03	<0.1	<0.1	<0.01	<0.03	<0.03		
	3/2/2016	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.0065	**0.04**	2.4E-03	0.055	<0.005	<0.015	<0.015		
	9/1/2015	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/25/2015	8260B	<0.10	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.1	<0.03	<0.03		
	11/12/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/5/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	10/15/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	5/28/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.17		<0.1	0.14	<0.01	<0.03	<0.03		
	11/6/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.15		<0.1	0.61	<0.01	<0.03	<0.03		
	5/29/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.01		
	11/1/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.16		<0.1	<0.1	<0.01	<0.03	<0.01		
	5/23/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	0.1	<0.01	<0.03	<0.01		
	4/20/2011	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.13		0.011	0.034	<0.001	<0.001	<0.001		
EP-12B	8/30/2016	8260B	1.7E-03	<0.01	<0.02	<0.04	<0.04	0.17	<0.03	<0.1	0.016	<0.01	<0.03	<0.03		
	3/2/2016	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.031	**0.038**	3.1E-03	0.063	<0.01	1.6E-03	<0.015		
	9/1/2015	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/25/2015	8260B	<0.01	<0.1	<0.02	<0.04	<0.04	0.13		<0.1	<0.1	<0.01	<0.03	<0.03		
	11/12/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		
	3/5/2014	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1	<0.1	<0.01	<0.03	<0.03		

8.15.4 EVAPORATION PONDS (EP-1 thru EP-12B)

Volatile Organic Compound Analytical Result Summary

STANDARDS			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	Bromo methane (mg/L)	2-Butanone (mg/L)	Carbon disulfide (mg/L)	Chloroform (mg/L)	Chloro methane (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	Methylene Chloride (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	0.01	NE	NE	NE	0.1
40 CFR 141.62 MCL			NE	NE	NE	NE	NE	NE	NE	NE	NE	**0.08**	NE	NE	NE	**0.005**
NMED Tap Water (JUL 2015)			NE	NE	**1.65E-03**	NE	NE	**14.1**	**0.00754**	**5.56**	**0.81**	0.00229	**0.0203**	NE	NE	0.106
EPA RSL for Tap Water (MAY 2016)			**0.015**	**0.12**	1.7E-04	**1.1E-03**	**0.036**	14.0	0.0075	5.6	0.81	2.2E-04	0.19	**1**	**0.66**	0.011
SAMPLE ID	**DATE SAMPLED**	**METHOD**														
EP-12B	10/15/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.28		<0.1	<0.1	<0.01	<0.03	<0.03		
	5/28/2013	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.53		<0.1	<0.1	<0.01	<0.03	<0.03		
	11/6/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.24		<0.1	0.47	<0.01	<0.03	<0.03		
	5/29/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.1		<0.1	<0.1	<0.01	<0.03	<0.01		
	11/1/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.16		<0.1	<0.1	<0.01	<0.03	<0.01		
	5/23/2011	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.18		<0.1	0.17	<0.01	<0.03	<0.01		
	4/20/2011	8260B	1.6E-03	<0.001	**3.4E-03**	**0.012**	0.019	0.3		0.025	0.035	<0.001	<0.001	<0.001		

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.15.5 EVAPORATION PONDS (EP-1 thru EP-12B)

Semi Volatile Organic Compound Analytical Result Summary

			PARAMETERS																						
		STANDARDS	Aniline (mg/L)	Benzoic acid (mg/L)	Benzyl alcohol (mg/L)	Bis (2-ethyl hexyl) phthalate (mg/L)	Carbazole (mg/L)	Chrysene (mg/L)	Di-n-octyl phthalate (mg/L)	Dimethyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluor anthene (mg/L)	Fluorene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphtha lene (mg/L)	2-Nitro phenol (mg/L)	Phenan threne (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)	Benz (a) anthra cene (mg/L)	Benzo (a) pyrene (mg/L)	Benzo (b) fluor anthene (mg/L)	Benzo (g,h,i) perylene (mg/L)	Indeno (1,2,3-cd) pyrene (mg/L)
		WQCC 20NMAC 6.2.3103	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.005	NE	NE	NE	NE	NE	NE	NE
		40 CFR 141.62 MCL	NE	NE	NE	0.006	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.002	NE	NE	NE
		NMED Tap Water (JUL 2015)	NE	NE	NE	0.0556	NE	0.0343	NE	14.8	0.354	0.802	0.288	NE	NE	NE	0.00165	NE	0.17	5.76	0.117	NE	0.000343	3.4E-06	0.000343	NE	0.000343
		EPA RSL for Tap Water (MAY 2016)	0.013	75	2	0.0056	NE	0.0034	0.2	15	0.36	0.8	0.29	0.036	0.93	0.93	1.7E-04	NE	NE	5.8	0.12	0.02	0.000012	0.000343	0.000034	NE	0.000034
	SAMPLE ID	SAMPLE DATE	METHOD																								
EP-1		11/12/2014	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	0.062	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05					
		3/5/2014	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	<0.05	0.14	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05					
		10/15/2013	8270C	<0.01	<0.04	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					
		5/28/2013	8270C	<0.03	<0.06	<0.03	<0.03	<0.03				<0.03		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03					
		11/6/2012	8270C	0.072	<0.1	<0.05	<0.05	<0.05				0.09		<0.05	<0.05	0.41	0.7	<0.05	<0.05	<0.05	1.4	<0.05	<0.05					
		5/29/2012	8270C	0.07	<0.1	<0.05	<0.05	<0.05				0.07		<0.05	<0.05	0.31	0.7	<0.05	<0.05	0.051	1.1	<0.05	<0.05					
		11/1/2011	8270C	0.82	<0.1	<0.05	<0.05	<0.05				0.43		<0.05	<0.05	2.5	5.0	<0.05	<0.05	<0.05	9.7	<0.5	<0.05					
		5/23/2011	8270C	0.42	<0.1	<0.05	<0.05	<0.05				0.26		<0.05	<0.05	2.0	3.6	<0.05	<0.05	<0.05	6.4	<0.5	<0.05					
		11/16/2010	8270C	0.6	<0.02	<0.01	<0.01	0.017				0.36		0.017	0.18	2.1	4.2	0.025	<0.1	0.11	8.5	0.012	<0.01					
		4/20/2010	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				0.063		<0.05	0.075	<0.05	<0.05	<0.05	<0.05	0.11	0.091	<0.05	<0.05					
EP-2		8/29/2016	8270C	<0.05	0.041	<0.05	0.015	<0.05		0.019	0.023	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05					
		3/2/2016	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	0.014	0.064	<0.01	<0.01	<0.01	0.094	<0.01	<0.01					
		9/1/2015	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	0.068	<0.01	<0.01	<0.01	0.22	<0.01	<0.01					
		3/24/2015	8270C	<0.1	<0.2	<0.1	<0.1	<0.1				<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
		11/12/2014	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.058	<0.05	<0.05					
		3/5/2014	8270C	0.044	0.097	<0.01	<0.01	<0.01				0.029		<0.01	<0.01	0.14	0.35	<0.01	<0.01	<0.01	0.87	<0.01	<0.01					
		10/15/2013	8270C	<0.01	0.057	<0.01	<0.01	<0.01				0.015		<0.01	<0.01	0.082	0.2	<0.01	<0.01	<0.01	0.42	<0.01	<0.01					
		5/28/2013	8270C	0.16	<0.04	<0.02	<0.02	<0.02				0.38		<0.02	<0.02	2.2	4.3	<0.02	<0.02	<0.02	7.4	<0.02	<0.02					
		11/6/2012	8270C	0.11	<0.1	<0.05	<0.05	<0.05				0.16		<0.05	<0.05	0.92	1.3	<0.05	<0.05	<0.05	2.3	<0.05	<0.05					
		5/29/2012	8270C	0.11	<0.1	<0.05	<0.05	<0.05				0.11		<0.05	<0.05	0.58	0.81	<0.05	<0.05	<0.05	1.7	<0.05	<0.05					
		11/1/2011	8270C	0.25	<0.1	<0.05	<0.05	<0.05				0.16		<0.05	<0.05	1.1	2.0	<0.05	<0.05	<0.05	3.6	<0.05	<0.05					
		5/23/2011	8270C	0.27	<0.02	0.02	0.013	<0.01				0.18		<0.01	<0.01	1.2	2.5	<0.01	<0.01	<0.01	2.7	<0.01	<0.01					
		11/16/2010	8270C	0.48	<0.02	0.011	<0.05	0.01				0.24		<0.05	0.089	1.5	2.1	0.027	<0.01	0.014	3.3	<0.01	0.011					
		4/20/2010	8270C	<0.05	0.16	<0.05	<0.05	<0.05				0.06		<0.05	0.075	0.88	1.4	<0.05	0.073	0.1	2.8	<0.05	<0.05					
EP-3		8/29/2016	8270C	<0.05	0.036	<0.05	0.018	<0.05		0.025	0.023	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05							
		3/2/2016	8270C	<0.01	0.019	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	0.014	0.095	<0.01	<0.10	<0.01	0.091							
		9/1/2015	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01							
		3/24/2015	8270C	<0.01	<0.02	<0.01	0.019	<0.01				<0.01		<0.01	<0.01	<0.01	0.012	<0.01	<0.01	<0.01	0.34							
		11/12/2014	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05							
		3/5/2014	8270c	0.045	<0.02	<0.01	<0.01	<0.01				0.026		<0.01	<0.01	0.11	0.29	<0.01	<0.01	<0.01	0.79							
		10/15/2013	8270C	<0.05	<0.2	<0.05	<0.05	<0.05				0.059		<0.05	<0.05	0.25	0.45	<0.05	<0.05	<0.05	1.0							
		5/28/2013	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				0.11		<0.05	<0.05	0.96	1.9	<0.05	<0.05	<0.05	3.7							
		11/6/2012	8270C	0.12	<0.04	0.026	<0.02	<0.02				0.1		<0.02	<0.02	0.52	0.96	<0.02	<0.02	<0.02	2.0							
		5/29/2012	8270C	<0.1	<0.02	<0.1	<0.1	<0.1				0.13		<0.1	<0.1	0.87	1.6	<0.1	<0.1	<0.1	3.3							
		11/1/2011	8270C	0.21	<0.1	<0.05	<0.05	<0.05				0.16		<0.05	<0.05	1.1	1.5	<0.05	.<0.05	<0.5	2.9							
		5/23/2011	8270C	0.083	<0.02	<0.01	<0.01	<0.01				0.092		<0.01	<0.01	0.63	1.6	<0.01	<0.01	<0.01	1.6							
		11/16/2010	8270C	0.26	<0.02	<0.01	<0.01	<0.01				0.14		<0.05	0.026	0.91	1.9	<0.01	<0.01	<0.01	2.4							
		4/20/2010	8270C	0.22	<0.1	<0.05	<0.05	<0.05				0.094		<0.05	<0.05	0.77	1.2	<0.05	<0.05	<0.05	2.8							
EP-4		8/29/2016	8270C	<0.1	0.078	<0.1	0.031	<0.1	0.029	0.036	0.045	<0.1	0.03	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1							
		3/2/2016	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	0.042	<0.01	<0.01	<0.01	0.026							
		9/1/2015	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	0.045	<0.01	<0.01	<0.01	<0.01							
		3/24/2015	8270C	<0.1	<0.2	<0.1	<0.1	<0.1				<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1							
		11/12/2014	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05							
		3/5/2014	8270C	0.04	<0.02	<0.01	<0.01	<0.01				0.022		<0.01	<0.01	0.08	0.21	<0.01	<0.01	<0.01	0.42							
		10/15/2013	8270C	<0.05	<0.2	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	0.18	0.34	<0.05	<0.05	<0.05	0.67							
		5/28/2013	8270C	0.029	<0.04	<0.02	<0.02	<0.02				0.071		<0.02	<0.02	0.48	1.0	<0.02	<0.02	<0.02	1.4							
		11/6/2012	8270C	0.06	<0.1	<0.05	<0.05	<0.05				0.072		<0.05	<0.05	0.29	0.53	<0.05	<0.05	<0.05	1.1							
		5/29/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				0.11		<0.05	<0.05	0.78	1.2	<0.05	<0.05	<0.05	2.9							
		11/1/2011	8270C	0.067	<0.1	<0.05	<0.05	<0.05				0.11		<0.05	<0.05	0.64	0.84	<0.05	<0.05	<0.05	1.1							
		5/23/2011	8270C	0.22	<0.02	<0.01	<0.01	<0.01				0.28		<0.01	<0.01	1.2	2.8	<0.01	<0.01	<0.01	2.3							
		11/16/2010	8270C	0.21	<0.02	<0.01	0.015	<0.01				0.11		<0.05	<0.01	0.55	1.3	<0.01	<0.01	<0.01	1.6							
		4/20/2010	8270C	0.18	<0.1	<0.05	<0.05	<0.05				0.073		<0.05	<0.05	0.62	0.96	<0.05	<0.05	<0.05	2.1							
EP-5		8/29/2016	8270C	<0.02	0.012	<0.02	5.9E-03	<0.02		6.8E-03	8.9E-03	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02							
		3/2/2016	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	0.034	<0.01	<0.01	<0.01	0.018							
		9/1/2015	8270C	<0.012	<0.024	<0.012	<0.012	<0.012				<0.012		<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012							
		3/24/2015	8270C	<0.01	<0.02	<0.01	0.016	<0.01				<0.1		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							

8.15.5 EVAPORATION PONDS (EP-1 thru EP-12B)

Semi Volatile Organic Compound Analytical Result Summary

STANDARDS			Aniline (mg/L)	Benzoic acid (mg/L)	Benzyl alcohol (mg/L)	Bis (2-ethyl hexyl) phthalate (mg/L)	Carbazole (mg/L)	Chrysene (mg/L)	Di-n-octyl phthalate (mg/L)	Dimethyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluor anthene (mg/L)	Fluorene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphtha lene (mg/L)	2-Nitro phenol (mg/L)	Phenan threne (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)	Benz (a) anthra cene (mg/L)	Benzo (a) pyrene (mg/L)	Benzo (b) fluor anthene (mg/L)	Benzo (g,h,i) perylene (mg/L)	Indeno (1,2,3-cd) pyrene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	**0.005**	NE	NE	NE	NE	NE	NE	NE
40 CFR 141.62 MCL			NE	NE	NE	**0.006**	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	**0.002**	NE	NE	NE
NMED Tap Water (JUL 2015)			NE	NE	NE	0.0556	NE	**0.0343**	NE	**14.8**	**0.354**	**0.802**	**0.288**	NE	NE	NE	**0.00165**	NE	**0.17**	5.76	**0.117**	NE	**0.000343**	3.4E-06	**0.000343**	NE	**0.000343**
EPA RSL for Tap Water (MAY 2016)			**0.013**	**75**	**2**	0.0056	NE	0.0034	**0.2**	15	0.36	0.8	0.29	**0.036**	**0.93**	**0.93**	1.7E-04	NE	NE	5.8	0.12	**0.02**	0.000012	0.000343	0.000034	NE	0.000034
SAMPLE ID	**SAMPLE DATE**	**METHOD**																									
EP-5	11/12/2014	8270C	<0.01	<0.02	<0.01	**0.013**	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	3/5/2014	8270C	**0.023**	<0.02	<0.01	<0.01	<0.01				0.018		<0.01	<0.01	0.082	0.2	<0.01	<0.01	<0.01	**0.26**							
	10/15/2013	8270C	<0.05	<0.2	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	0.16	0.26	<0.05	<0.05	<0.05	**0.54**							
	5/28/2013	8270C	**0.032**	<0.04	<0.02	<0.02	<0.02				0.084		<0.02	<0.02	0.46	0.93	<0.02	<0.02	<0.02	**1.2**							
	11/6/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				0.074		<0.05	<0.05	0.27	0.4	<0.05	<0.05	<0.05	**0.9**							
	5/29/2012	8270C	**0.057**	<0.1	<0.05	<005	<0.05				<0.05		<0.05	<0.05	**0.82**	**1.1**	<0.05	<0.05	<0.05	**2.7**							
	11/1/2011	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	0.1	0.089	<0.05	<0.05	<0.05	**0.052**							
	5/23/2011	8270C	**0.11**	<0.02	<0.01	<0.01	<0.01				0.22		<0.01	<0.01	**1.1**	**2.6**	<0.01	<0.01	<0.01	**1.8**							
	11/16/2010	8270C	**0.12**	<0.1	<0.05	<005	<0.05				0.09		<0.05	<0.05	0.6	**1.1**	<0.05	<0.05	<0.05	**1.2**							
	4/20/2010	8270C	**0.17**	<0.1	<0.05	<0.05	<0.05				0.074		<0.05	<0.05	0.64	**1.0**	<0.05	<0.05	<0.05	**2.2**							
EP-6	8/29/2016	8270C	<0.01	6.2E-03	<0.01	3.4E-03	<0.01		3.3E-03	4.3E-03	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	3/2/2016	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.012	0.0	<0.01	<0.01	<0.01	**0.014**							
	9/1/2015	8270C	<0.012	<0.024	<0.012	<0.012	<0.012				<0.012		<0.012	<0.012	<0.012	<0.012	<0.012	<0.01	<0.012	<0.012							
	3/25/2015	8270C	<0.1	<0.2	<0.1	<0.1	<0.1				<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1							
	11/12/2014	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	3/5/2014	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	<0.05	0.088	<0.05	<0.05	<0.05	**0.28**							
	10/15/2013	8270C	<0.01	<0.04	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	5/28/2013	8270C	<0.1	<0.1	<0.2	<0.1	<0.1				<0.1		<0.1	<0.1	0.26	0.23	<0.1	<0.1	<0.1	**0.14**							
	11/6/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05							
	5/29/2012	8270C	**0.036**	<0.02	<0.01	<0.01	<0.01				0.034		<0.01	<0.01	0.43	0.41	<0.01	<0.01	<0.01	**0.72**							
	11/1/2011	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	5/23/2011	8270C	**0.069**	<0.02	<0.01	**0.019**	<0.01				0.11		<0.01	<0.01	0.56	**1.1**	<0.01	<0.01	<0.01	**1.3**							
	11/16/2010	8270C	<0.01	<0.02	<0.01	**0.011**	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.032**							
	4/20/2010	8270C	**0.081**	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	0.3	0.44	<0.05	<0.05	<0.05	**0.38**							
EP-7	8/30/2016	8270C	<0.1	<0.02	<0.01	3.7E-03	<0.01		4.6E-03	0.0041	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	3/2/2016	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	9/1/2015	8270C	<0.012	<0.024	<0.012	<0.012	<0.012				<0.012		<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012							
	3/25/2015	8270C0	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.10	<0.01	<0.01	<0.01	<0.01	<0.01							
	11/12/2014	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	3/5/2014	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	10/15/2013	8270C	<0.01	<0.04	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	5/28/2013	8270C	<0.03	<0.06	<0.03	<0.03	<0.03				<0.03		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03							
	11/6/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05							
	5/29/2012	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	11/1/2011	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	0.018	<0.01	<0.01	<0.01	**0.04**							
	5/23/2011	8270C	<0.01	<0.02	<0.01	**0.019**	<0.01				<0.01		<0.01	<0.01	<0.01	0.045	<0.01	<0.01	<0.01	**0.17**							
	11/16/2010	8270C	<0.01	<0.02	<0.01	**0.011**	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	4/20/2010	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05							
EP-8	8/30/2016	8270C	<0.1	<0.01	<0.01	3.7E-03	2.8E-03	7.1E-03	3.6E-03	0.004	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	4.4E-03	<0.01	0.012		**6.8E-03**	**0.004**	**7.8E-03**	3.8E-03	**0.0033**
	9/1/2015	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	3/25/2015	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	11/12/2014	8270C	<0.011	<0.022	<0.011	**0.018**	<0.011				<0.01		<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011							
	3/5/2014	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	10/15/2013	8270C	<0.01	<0.04	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	5/28/2013	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	11/6/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05							
	5/29/2012	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	11/1/2011	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	5/23/2011	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	11/16/2010	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	4/20/2010	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05							
EP-9	8/30/2016	8270C	<0.01	<0.02	<0.01	0.004	<0.01		3.4E-03	4.2E-03	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	3/2/2016	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	9/1/2015	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	3/25/2015	8270C	<0.01	<0.02	<0.01	**0.014**	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							

8.15.5 EVAPORATION PONDS (EP-1 thru EP-12B)

Semi Volatile Organic Compound Analytical Result Summary

STANDARDS			Aniline (mg/L)	Benzoic acid (mg/L)	Benzyl alcohol (mg/L)	Bis (2-ethyl hexyl) phthalate (mg/L)	Carbazole (mg/L)	Chrysene (mg/L)	Di-n-octyl phthalate (mg/L)	Dimethyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluor anthene (mg/L)	Fluorene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphtha lene (mg/L)	2-Nitro phenol (mg/L)	Phenan threne (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)	Benz (a) anthra cene (mg/L)	Benzo (a) pyrene (mg/L)	Benzo (b) fluor anthene (mg/L)	Benzo (g,h,i) perylene (mg/L)	Indeno (1,2,3-cd) pyrene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	**0.005**	NE	NE	NE	NE	NE	NE	NE
40 CFR 141.62 MCL			NE	NE	NE	**0.006**	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	**0.002**	NE	NE	NE
NMED Tap Water (JUL 2015)			NE	NE	NE	0.0556	NE	**0.0343**	NE	**14.8**	**0.354**	**0.802**	**0.288**	NE	NE	NE	**0.00165**	NE	**0.17**	5.76	**0.117**	NE	**0.000343**	3.4E-06	**0.000343**	NE	**0.000343**
EPA RSL for Tap Water (MAY 2016)			**0.013**	**75**	**2**	0.0056	NE	0.0034	**0.2**	15	0.36	0.8	0.29	**0.036**	**0.93**	**0.93**	1.7E-04	NE	NE	5.8	0.12	**0.02**	0.000012	0.000343	0.000034	NE	0.000034
SAMPLE ID	SAMPLE DATE	METHOD																									
EP-9	11/13/2014	8270C	<0.01	<0.02	<0.01	**0.018**	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	3/5/2014	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	10/15/2013	8270C	<0.01	<0.04	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	5/28/2013	8270C	<0.03	<0.06	<0.03	<0.03	<0.03				<0.03		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03							
	11/6/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05							
	5/29/2012	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	0.07	0.12	<0.01	<0.01	<0.01	**0.23**							
	11/1/2011	8270C	<0.02	<0.04	<0.02	<0.02	<0.02				<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02							
	5/23/2011	8270C	<0.02	<0.04	<0.02	**0.022**	<0.02				<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02							
	11/16/2010	8270C	<0.01	<0.02	<0.01	**0.013**	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	4/20/2010	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05							
EP-11	8/30/2016	8270C	<0.01	7.6E-03	<0.01	4.1E-03	<0.01		5.2E-03	4.4E-03	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	3/2/2016	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	9/1/2015	8270C	<0.01	<0.02	<0.01	**0.013**	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	3/25/2015	8270C	<0.01	<0.01	<0.01	**0.011**	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	11/12/2014	8270C	<0.01	<0.02	<0.01	**0.013**	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	3/5/2014	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05							
	10/15/2013	8270C	<0.01	<0.04	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	5/28/2013	8270C	<0.02	<0.04	<0.02	<0.02	<0.02				<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02							
	11/6/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	0.2	0.33	<0.05	<0.05	<0.05	**0.68**							
	5/29/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05							
	11/1/2011	8270C	**0.067**	<0.1	<0.05	<0.05	<0.05				0.055		<0.05	<0.05	0.46	0.75	<0.05	<0.05	<0.05	**1.3**							
	5/23/2011	8270C	<0.01	<0.02	<0.01	**0.017**	<0.01				0.065		<0.01	<0.01	0.42	**1.1**	<0.01	<0.01	<0.01	**2.1**							
	11/16/2010	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	4/20/2010	8270C	<0.01	<0.02	<0.05	<0.05	<0.05				<0.01		<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
EP-12A	8/30/2016	8270C	<0.02	<0.04	<0.02	**6.2E-03**	<0.02		0.007	8.4E-03	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02							
	3/2/2016	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	9/1/2015	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	3/25/2015	8270C	<0.1	<0.2	<0.1	<0.1	<0.1				<0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1							
	11/12/2014	8270C	<0.01	<0.02	<0.01	**0.012**	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	3/5/2014	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.2**							
	10/15/2013	8270C	<0.05	<0.2	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	0.1	0.16	<0.05	<0.05	<0.05	**0.35**							
	5/28/2013	8270C	**0.031**	<0.01	<0.01	<0.01	<0.01				0.11		<0.01	<0.01	0.56	**1.3**	<0.01	<0.01	<0.01	**2.0**							
	11/6/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	0.15	0.21	<0.05	<0.05	<0.05	**0.46**							
	5/29/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05							
	11/1/2011	8270C	**0.16**	<0.1	<0.05	<0.05	<0.05				0.15		<0.05	<0.05	**0.94**	**1.3**	<0.05	<0.05	<0.05	**2.7**							
	5/23/2011	8270C	**0.14**	<0.02	<0.01	<0.01	<0.01				0.19		<0.01	<0.01	**1.2**	2.7	<0.01	<0.01	<0.01	**3.6**							
	11/16/2010	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	4/20/2010	8270C	**0.067**	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	0.12	0.17	<0.05	<0.05	<0.05	**0.016**							
EP-12B	8/30/2016	8270C	<0.05	0.031	<0.05	**0.017**	<0.05		0.019	0.021	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05							
	3/2/2016	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	9.7E-03	0.053	<0.01	<0.01	<0.01	**0.055**							
	9/1/2015	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	0.034	<0.01	<0.01	<0.01	**0.086**							
	3/25/2014	8270C	<0.10	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	<0.01	**0.21**							
EP-12B	11/12/2014	8270C	<0.01	<0.02	<0.01	**0.012**	<0.01				<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	3/5/2014	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				<0.05		<0.05	<0.05	<0.05	0.079	<0.05	<0.05	<0.05	**0.6**							
	10/15/2013	8270C	<0.05	<0.2	<0.05	<0.05	<0.05				0.068		<0.05	<0.05	0.34	0.73	<0.05	<0.05	<0.05	**1.5**							
	5/28/2013	8270C	**0.11**	<0.04	<0.02	<0.02	<0.02				0.2		<0.02	<0.02	**1.4**	**3.5**	<0.02	<0.02	<0.02	**5.5**							
	11/6/2012	8270C	**0.093**	<0.1	<0.05	<0.05	<0.05				0.089		<0.05	<0.05	0.46	**0.96**	<0.05	<0.05	<0.05	**1.8**							
	5/29/2012	8270C	<0.1	<0.02	<0.1	<0.1	<0.1				<0.1		<0.1	<0.1	0.33	0.56	<0.1	<0.1	<0.1	**1.1**							
	11/1/2011	8270C	**0.023**	<0.02	<0.01	<0.01	<0.01				0.021		<0.01	<0.01	0.13	0.19	<0.01	<0.01	<0.01	**0.34**							
	5/23/2011	8270C	**0.15**	<0.02	<0.01	<0.01	<0.01				0.19		<0.01	<0.01	**1.1**	**2.1**	<0.01	<0.01	<0.01	**2.1**							
	11/16/2010	8270C	<0.01	<0.02	<0.01	<0.01	<0.01				<0.01		<0.01	<0.01	0.066	0.078	<0.01	<0.01	<0.01	**0.2**							
	4/20/2010	8270C	<0.05	<0.1	<0.05	<0.05	<0.05				0.11		<0.05	<0.05	0.92	**1.2**	<0.05	<0.05	<0.05	**2.7**							

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.16 STP-1 TO EP-2 (EP-2 INLET)

BTEX, DRO/GRO, TDS Analytical Result Summary

STANDARDS			Parameters								
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	TDS (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE	NE	NE	NE	**1000**
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE	NE	NE	NE	NE
NMED Tap Water (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**	NE	NE	NE	NE
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014	NE	NE	NE	NE
SAMPLE ID	**DATE SAMPLED**	**METHOD**									
STP-1 TO EP-2	11/14/2016	8260B/8015D	<0.01	<0.01	<0.01	<0.015	<0.01	0.95	<0.5	<5.0	**4810**
(EP-2 Inlet)	8/30/2016	8260B/8015D	<0.01	<0.01	<0.01	<0.015	<0.01	5.1	0.22	<5.0	**5100**
	6/8/2016 [2]	8260B/8015D	<0.005	<0.005	<0.005	<0.0075	<0.005	2.0	<0.25	<5.0	**4400**
	8/24/2015	8260B/8015B	<0.002	<0.002	<0.002	<0.003	<0.002	2.3	0.13	<5.0	**2420**
	9/10/2014	8260B/8015B	**0.018**	<0.002	<0.002	<0.003	<0.002	2.4	<0.5	<5.0	**2590**
	9/5/2013	8260B/8015B	**0.033**	0.013	<0.01	<0.015	<0.01	3.3	<0.5	<5.0	**2340**
	8/21/2012 [1]	8260B/8015B	<0.001	<0.001	<0.001	<0.0015	<0.001	<1.0	<0.05	<5.0	**3720**
	10/31/2011	8260B/8015B	<0.005	6.3E-03	<0.005	<0.0075	<0.005	39	1.7	6.9	**6730**
	7/21/2010	8260B/8015B	<0.005	<0.005	<0.005	<0.0075	<0.005	21	0.83		**4120**

DEFINITIONS

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STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) Sample taken from inlet from STP-1. No flow to aeration lagoons - diverted to Waste Water Treatment Plant.
2) Switched to quarterly per NMED directive "Approval with Modifications", dated May 18, 2016.

8.16.1 STP-1 TO EP-2 (EP-2 INLET)

BOD/COD Analytical Result Summary

STANDARDS			Parameters	
			BOD (mg/L)	COD (mg/L)
20NMAC 6.2.2101			<30	<125
SAMPLE ID	DATE SAMPLED	METHOD		
STP-1 TO EP-2	11/17/2016	SM5210B/5220C	1000	1620
(EP-2 Inlet)	8/30/2016	SM5210B/5220C	310	661
	6/8/2016	SM5210B/5220C	160	408
	8/24/2015	SM5210B/5220C	380	80.6
	11/12/2014	SM5210B/5220C	630	1300
	9/10/2014	SM5210B/5220C	270	1500
	9/5/2013	SM5210B/5220C	670	1200
	8/21/2012 [1]	SM5210B/5220C	<2.0	<10.0
	10/31/2011	SM5210B/5220C	410	1520
	7/21/2010	SM5210B/5220C	1400	3200
	6/18/2009	SM5210B/5220C	191	1149
	8/22/2008	SM5210B/5220C	348	1540
	3/26/2008	SM5210B/5220C	649	1430
	3/20/2008	SM5210B/5220C	344	829
	3/11/2008	SM5210B/5220C	651	1150
	3/6/2008	SM5210B/5220C	947	1520
	2/28/2008	SM5210B/5220C	46.1	2440
	2/21/2008	SM5210B/5220C	>394	1950
	2/14/2008	SM5210B/5220C	570	2290
	2/7/2008	SM5210B/5220C	671	2570
	1/31/2008	SM5210B/5220C	414	1290
	1/25/2008	SM5210B/5220C	520	1200
	1/18/2008	SM5210B/5220C	462	1460
	1/11/2008	SM5210B/5220C	449	1350

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) Sample taken from inlet from STP-1. No flow to aeration lagoons - diverted to Waste Water Treatment Plant.

8.16.2 STP-1 TO EP-2 (EP-2 INLET)

Volatile Organic Compound Analytical Result Summary

STANDARDS			Parameters		
			Acetone (mg/L)	2-Butanone (mg/L)	Carbon Disulfide (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE
40 CFR 141.62 MCL			NE	NE	NE
NMED Tap Water (JUL 2015)			**14.1**	**5.56**	**0.81**
EPA RSL for Tap Water (MAY 2016)			14	5.6	0.81
SAMPLE ID	**DATE SAMPLED**	**METHOD**			
STP-1 TO EP-2	11/17/2016	8260B	2.4	0.076	0.013
	8/30/2016	8260B/8270C	1.1	<0.1	<0.1
	6/8/2016 [1]	8260B	0.87	0.024	0.039
	8/24/2015	8260B	0.25	<0.02	<0.02
	9/10/2014	8260B/8270C	1.3	0.16	0.058
	9/5/2013	8260B	2.2	0.26	<0.1
	8/21/2012 [1]	8260B	<0.01	<0.01	<0.01
	10/31/2011	8260B	0.86	0.14	<0.05
	7/21/2010	8260B	0.49	<0.05	<0.05

DEFINITIONS
NE = Not established
NA = Not analyzed
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES
1) Sample taken from inlet from STP-1. No flow to aeration lagoons - diverted to Waste Water Treatment Plant.

8.16.3 STP-1 TO EP-2 (EP-2 INLET)
TOTAL METALS ANALYSIS

STANDARDS			Parameters										
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	0.002	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.000626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	6.3E-04	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**												
STP-1 TO EP-2	11/12/2014	200.7/200.8	**0.011**	0.071	<0.002	0.013	0.0066	**1.6**	<0.001	0.18	<0.025	<0.0002	2.2E-03	0.044
(EP-2 Inlet)	9/10/2014	200.7/200.8	**0.014**	9.8E-02	<0.002	0.017	<0.006	**3.7**	<0.001	0.18	2.1E-02	<0.0002	4.5E-03	0.12

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

1) Method 200.7/200.8 analysis requested as part of the annual sampling

8.16.4 STP-1 TO EP-2 (EP-2 INLET)
DISSOLVED METALS ANALYSIS

STANDARDS			Parameters									
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.03**	**10**
40 CFR 141.62 MCL (NOV 2015)			**0.01**	2.0	**NE**	NE	NE	NE	**0.015**	NE	0.05	0.03	NE
NMED TAP WATER (DEC 2014)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0592	5.96
EPA RSL for Tap Water (NOV 2015)			5.2E-05	0.38	9.2E-03	NE	0.8	14	0.015	0.43	0.1	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**											
STP-1 TO EP-2 (EP-2 Inlet)	9/10/2014	200.7/200.8	**0.011**	0.087	<0.002	0.018	<0.006	**3.5**	<0.001	0.18	2.2E-02	2.8E-03	0.087

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.17 MKTF Wells
BTEX Analytical Results

STANDARDS			PARAMETERS				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED Tap Water (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
Well ID	**DATE SAMPLED**	**METHOD**					
MKTF-1	2/24/2016	8260B	**9.5**	**1.8**	**0.85**	**1.0**	**0.33**
	11/4/2015	8260B	**10**	**1.4**	**0.79**	**1.2**	**0.39**
	8/21/2015	8260B	**9.1**	**1.0**	0.7	**0.87**	**0.44**
	6/9/2015	8260B	**9.3**	**1.5**	**0.74**	**1.8**	**0.41**
	3/11/2015	8260B	**9.3**	**2.0**	**0.74**	**1.9**	**0.37**
	6/6/2014	8260B	**8.7**	**7.1**	**0.92**	**4.3**	**0.42**
MKTF-2	10/28/2016	8260B	**1.6**	0.02	0.095	9.9E-03	0.15
	9/7/2016	8260B	**1.8**	0.017	0.16	0.028	0.11
	6/10/2016	8260B	**1.2**	0.026	0.21	0.16	0.087
	2/24/2016	8260B	**0.11**	9.5E-04	1.1E-03	<0.0075	0.036
	11/4/2015	8260B	**0.44**	0.013	0.072	6.3E-03	0.058
	8/21/2015	8260B	**0.37**	5.6E-03	0.011	3.3E-03	0.044
	6/9/2015	8260B	**0.47**	0.011	0.062	0.039	0.037
	3/11/2015	8260B	**0.2**	<0.002	4.1E-03	7.6E-03	0.044
	11/14/2014	8260B	**0.2**	2.2E-03	2.9E-03	1.6E-03	0.059
	9/18/2014	8260B	**2.1**	0.044	0.34	<0.0075	0.1
	6/6/2014	8260B	**0.23**	3.6E-03	0.022	0.034	0.042
	4/8/2014	8260B	**0.11**	<0.002	0.0035	0.008	0.036
	10/28/2013	8021B	**0.69**	<0.02	5.5E-02	0.16	<0.05
MKTF-4	11/2/2016	8260B	**0.9**	0.018	0.64	**0.85**	**2.1**
	9/11/2016	8260B	**0.9**	0.015	0.67	**0.76**	**2.4**
	6/9/2016	8260B	**0.6**	0.015	0.58	**0.72**	**1.8**
	2/29/2016	8260B	**0.8**	0.017	**0.73**	**0.8**	**2.2**
	11/3/2015	8260B	**0.4**	0.015	0.7	**0.78**	**1.5**
	8/18/2015	8260B	**0.3**	0.011	0.43	0.55	**1.4**
	6/4/2015	8260B	**0.31**	0.013	0.45	0.56	**1.3**
	3/16/2015	8260B	**0.22**	<0.01	0.26	0.34	**1.2**
	11/13/2014	8260B	**0.18**	<0.01	0.28	0.26	**1.4**
	9/15/2014	8260B	**0.15**	<0.005	0.14	0.14	**1.4**
	6/4/2014	8260B	**0.67**	0.019	0.57	**0.68**	**1.8**
	4/11/2014	8260B	**1.0**	0.025	**0.8**	**1.0**	**2.4**
MKTF-9	11/2/2016	8260B	**1.6**	0.026	0.21	0.052	**0.5**
	9/11/2016	8260B	**2**	0.03	0.22	0.059	**0.62**
	6/9/2016	8260B	**1.4**	0.029	0.21	0.056	**0.53**
	2/29/2016	8260B	**1.6**	0.029	0.24	0.064	**0.69**
	11/3/2015	8260B	**1.5**	0.036	0.23	0.07	**0.63**
	8/18/2015	8260B	**1.2**	0.035	0.2	0.063	**0.6**
	6/4/2015	8260B	**0.89**	0.025	0.15	0.039	**0.43**
	3/16/2015	8260B	**0.49**	0.013	0.08	0.018	**0.5**
	11/14/2014	8260B	**0.81**	0.033	0.15	0.11	**0.77**
	9/18/2014	8260B	**0.75**	0.027	0.096	0.043	**0.76**
	6/5/2014	8260B	**1.3**	0.052	0.2	0.098	**1.2**
	4/14/2014	8260B	**1.1**	0.038	0.14	0.075	**1.2**
MKTF-10	11/2/2016	8260B	**17**	**22**	**1.7**	**8**	<0.1
	9/11/2016	8260b	**16**	**20**	**1.6**	**7.3**	<0.1
	6/9/2016	8260B	**15**	**22**	**1.7**	**8.9**	0.018
	2/29/2016	8260B	**11**	**23**	**1.7**	**7.7**	<0.1
	11/3/2015	8260B	**12**	**22**	**1.6**	**6.8**	<0.05
	8/18/2015	8260B	**9.2**	**19**	**1.5**	**6.5**	<0.5
	6/4/2015	8260B	**10**	**20**	**1.5**	**6.5**	<0.05
	3/16/2015	8260B	**11**	**21**	**1.6**	**6.8**	<0.05
	11/14/2014	8260B	**11**	**20**	**1.7**	**7.6**	<0.02
	9/18/2014	8260B	**11**	**15**	**0.93**	**4.0**	<0.05
	6/6/2014	8260B	**12**	**14**	**0.74**	**3.4**	0.019
	4/11/2014	8260B	**14**	**19**	**1.5**	**6.9**	<0.05

8.17 MKTF Wells
BTEX Analytical Results

STANDARDS			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED Tap Water (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
Well ID	**DATE SAMPLED**	**METHOD**					
MKTF-11	11/2/2016	8260B	**3.9**	**4.5**	0.52	**1.6**	0.071
	9/11/2016	8260B	**4.5**	**4.8**	0.53	**1.6**	0.081
	6/9/2016	8260B	**4.5**	**5.8**	0.57	**1.8**	0.078
	2/29/2016	8260B	**5.1**	**6.4**	0.67	**2.2**	0.12
	11/3/2015	8260B	**11**	**13**	**0.96**	**3.9**	0.056
	8/18/2015	8260B	**3.7**	**4.2**	0.5	**1.5**	0.082
	6/4/2015	8260B	**12**	**13**	**1.2**	**4.9**	0.041
	3/16/2015	8260B	**10**	**11**	**0.93**	**3.7**	0.048
	11/13/2014	8260B	**9.5**	**8.2**	**0.77**	**2.3**	0.08
	9/15/2014	8260B	**9.5**	**7.1**	**0.72**	**2.0**	0.083
	6/5/2014	8260B	**12**	**7.8**	**0.75**	**2.2**	0.096
	4/11/2014	8260B	**15**	**7.6**	**0.93**	**2.2**	**0.15**
MKTF-15	11/2/2016	8260B	**20**	**16**	**2.1**	**7.6**	0.099
	9/11/2016	8260B	**24**	**16**	**2.0**	**7.3**	0.096
	6/4/15 , 3/16/15	8260B	SPH DETECTED				
	9/17/2014	8260B	**11**	**7.0**	**1.4**	**4.3**	**0.38**
	6/5/2014	8260B	**12**	**8.8**	**1.3**	**3.7**	**0.27**
	4/10/2014	8260B	**16**	**2.4**	**1.2**	**6.1**	**0.27**
	11/1/2013	8021B	**12**	**12**	**1.5**	**4.8**	NA
MKTF-16	11/3/2016	8260B	**19**	0.22	**0.88**	**3.4**	**0.97**
	9/12/2016	8260B	**23**	0.24	**1.3**	**4.3**	**1.7**
	6/9/2016	8260B	**16**	0.34	**1.1**	**3.6**	**1.4**
	2/29/2016	8260B	**19**	0.28	**1.0**	**3.9**	**1.4**
	11/3/2015	8260B	**28**	0.62	**1.7**	**6.6**	**1.7**
	8/23/2015	8260B	**24**	0.64	**1.4**	**5.6**	**2.1**
	6/8/2015	8260B	**23**	**1.3**	**1.4**	**5.3**	**2.0**
	3/16/2015	8260B	**19**	0.45	**1.4**	**5.4**	**1.6**
	11/18/2014	8260B	**20**	**1.2**	**1.3**	**5.8**	**1.4**
	9/17/2014	8260B	**17**	**1.4**	**1.2**	**5.3**	**2.1**
	6/5/2014	8260B	**18**	**3.7**	**1.7**	**8.1**	**2.0**
	4/10/2014	8260B	**11**	**7.5**	**1.1**	**3.6**	**0.27**
	11/19/2013	8021B	**9.9**	**8.2**	**1.9**	**9.8**	NA
MKTF-17	11/8/2016	8260B	**0.76**	1.9E-03	0.39	4.3E-03	**0.36**
	9/13/2016	8260B	**1.3**	2.1E-03	0.55	<0.015	**0.38**
	6/10/2016	8260B	**1.9**	0.006	0.52	0.24	**0.49**
	2/26/2016	8260B	**0.26**	<0.005	0.018	0.023	**0.64**
	11/3/2015	8260B	**0.029**	<0.002	0.31	<0.003	**0.77**
	8/18/2015	8260B	**0.036**	1.1E-03	0.3	1.8E-03	**0.64**
	6/8/2015	8260B	**0.011**	<0.001	0.018	<0.0015	**0.5**
	3/12/2015	8260B	2.8E-03	<0.001	5.9E-03	<0.0015	**0.59**
	11/18/2014	8260B	**0.14**	<0.001	0.078	<0.0015	**0.57**
	9/18/2014	8260B	**0.55**	<0.01	0.24	<0.015	**0.69**
	6/6/2014	8260B	**2.6**	<0.01	0.48	0.068	**1.1**
	4/9/2014	8260B	**3.5**	<0.01	0.58	0.27	**1.3**
	11/13/2013	8021B	**1.8**	**1.6**	**0.71**	**2.7**	NA
MKTF-18	11/8/2016	8260B	**0.016**	3.0E-04	0.014	7.6E-04	0.081
	9/13/2016	8260B	**0.016**	3.8E-04	0.015	1.3E-03	0.074
	6/10/2016	8260B	**0.016**	4.8E-04	0.021	2.5E-03	0.092
	2/26/2016	8260B	**0.017**	5.9E-04	0.034	5.6E-03	0.071
	11/3/2015	8260B	**0.019**	<0.002	0.041	0.017	0.083
	8/18/2015	8260B	**0.032**	1.6E-03	0.054	0.019	0.1
	6/8/2015	8260B	**0.05**	3.3E-03	0.049	0.031	0.082
	3/17/2015	8260B	**0.058**	<0.005	0.017	0.029	0.091
	11/18/2014	8260B	**0.096**	7.6E-03	0.09	0.047	0.1
	9/18/2014	8260B	**0.12**	0.013	0.069	0.042	0.12
	6/6/2014	8260B	**0.29**	0.014	0.036	0.055	0.14
	4/14/2014	8260B	**0.29**	0.015	0.058	0.044	**0.15**
	11/19/2013	8021B	**0.33**	0.37	0.13	0.47	NA
MKTF-19	11/8/2016	8260B	**1.3**	6.8E-03	0.7	**1.0**	**10**
	9/13/2016	8260B	**1.4**	7.5E-03	0.69	**0.92**	**8.9**
	6/10/2016	8260B	**1.5**	6.4E-03	0.69	**0.66**	**7.9**
	2/25/2016	8260B	**1.5**	0.005	**0.79**	**0.67**	**8.6**
	11/3/2015	8260B	**2.8**	0.022	**0.76**	**0.93**	**8.4**

8.17 MKTF Wells
BTEX Analytical Results

STANDARDS			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED Tap Water (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
Well ID	**DATE SAMPLED**	**METHOD**					
	8/18/2015	8260B	**2.4**	0.015	**0.74**	0.45	**8.8**
	6/8/2015	8260B	**1.8**	0.013	0.59	0.31	**9.1**
	3/12/2015	8260B	**1.4**	<0.01	0.43	0.15	**9.7**
	11/18/2014	8260B	**2.3**	<0.05	**0.74**	0.36	**9.7**
	9/24/2014	8260B	**1.8**	<0.05	**0.73**	**0.76**	**11**
	4/9/2014	8260B	**1.4**	<0.05	0.68	0.61	**9.7**
	11/5/2013	8021B	**0.64**	0.14	0.47	1.1	NA
MKTF-20 [1]	11/3/2016	8260B	**13.0**	0.4	**1.1**	**9.2**	**0.19**
	9/12/2016	8260B	**18.0**	0.48	**1.3**	**8.8**	**0.16**
	6/9/2016	8260B	**11.0**	0.39	**0.85**	**7.9**	**0.16**
	3/1/2016	8260B	**13.0**	0.47	**1.1**	**9.2**	0.13
	3/16/2015	8260B	**7.0**	**2.3**	0.089	**9.6**	<0.05
	11/18/2014	8260B	**4.4**	**1.3**	0.48	**10**	0.083
	4/11/2014	8260B	**25**	**17**	**2.8**	**14**	**0.38**
MKTF-21 [1]	11/3/2016	8260B	**7.6**	0.068	0.4	**2.3**	**0.77**
	9/12/2016	8260B	**9.3**	0.059	0.48	**2.0**	**0.68**
	6/9/2016	8260B	**7.5**	0.17	0.25	**1.3**	**0.55**
	3/1/2016	8260B	**4.6**	0.34	0.15	**1.3**	**0.48**
	6/10/2015	8260B	**6.2**	0.48	0.18	**0.81**	**0.82**
	3/16/2015	8260B	**3.7**	0.26	0.013	0.27	**0.63**
	4/11/2014	8260B	**7.2**	**13**	**2.1**	**11**	**0.58**
MKTF-22	11/1/2016	8260B	**3.7**	0.032	0.46	<0.03	**8.0**
	9/10/2016	8260B	**4.2**	0.03	0.43	0.049	**8.8**
	6/10/2016	8260B	**3.8**	0.035	0.5	0.062	**6.5**
	2/25/2016	8260B	**4**	0.032	0.57	0.07	**7.2**
	11/9/2015	8260B	**2.7**	<0.02	0.35	<0.03	**5.5**
	8/20/2015	8260B	**1.2**	<0.02	0.097	<0.03	**4.8**
	6/9/2015	8260B	**2.9**	0.022	0.32	0.047	**5.7**
	3/12/2015	8260B	**2.6**	<0.02	0.25	<0.03	**5.1**
	11/17/2014	8260B	**1.6**	<0.01	0.09	<0.0015	**3.9**
	9/23/2014	8260B	DRY				
	4/10/2014	8260B	**2.3**	0.021	0.28	0.032	**3.7**
	11/19/2013	8021B	**1.3**	0.0075	0.072	0.016	NA
MKTF-23	6/10/2016	8260B	**3.2**	**0.98**	0.3	**6.1**	**1.4**
	2/25/2016	8260B	**3.1**	**1.2**	0.31	**6.7**	**1.6**
	11/9/2015	8260B	**2.6**	**3.0**	0.57	**7.8**	**1.4**
	8/21/2015	8260B	**3.0**	**2.7**	0.42	**6.2**	**1.2**
	6/9/2015	8260B	**2.9**	**3.0**	0.51	**6.5**	**1.1**
	3/12/2015	8260B	**3.3**	**4.8**	0.6	**8.1**	**1.1**
	11/17/2014	8260B	**3.6**	**3.0**	0.47	**4.5**	**0.57**
	9/23/2014	8260B	**2.7**	**1.4**	0.34	**1.6**	**0.48**
	4/10/2014		SPH DETECTED				
	11/5/2013	8021B	**0.92**	**1.0**	0.23	**0.66**	NA
MKTF-24	10/28/2016	8260B	**6.1**	0.025	0.3	0.015	**0.23**
	9/7/2016	8260B	**5.3**	0.021	0.21	0.011	**0.17**
	6/8/2016	8260B	**3.0**	0.018	0.074	6.0E-03	**0.21**
	2/22/2016	8260B	**5.6**	0.027	0.31	8.8E-03	**0.21**
	11/4/2015	8260B	**2.8**	<0.02	0.054	<0.03	**0.21**
	8/20/2015	8260B	**2.7**	<0.02	0.056	<0.03	**0.2**
	6/10/2015	8260B	**2.9**	0.015	0.046	<0.0075	**0.17**
	3/11/2015	8260B	**2.6**	0.012	0.031	<0.0075	**0.17**
	11/14/2014	8260B	**1.6**	9.5E-03	0.049	2.9E-03	0.063
	9/24/2014	8260B	**1.6**	8.7E-03	0.058	<0.003	**0.17**
	4/8/2014	8260B	**0.45**	6.7E-03	0.065	2.3E-03	**0.18**
	11/1/2013	8021B	**1.2**	<0.02	0.23	<0.04	NA
MKTF-25	11/1/2016	8260B	**0.96**	6.0E-03	0.046	4.6E-03	**0.19**
	9/9/2016	8260B	**0.92**	5.0E-03	0.018	<0.015	**0.15**
	6/9/2016	8260B	**0.99**	0.013	0.19	0.018	**0.48**
	2/23/2016	8260B	**1.2**	0.011	0.19	6.4E-03	**0.2**
	11/5/2015	8260B	**1.1**	8.7E-03	0.14	0.016	**0.25**
	8/21/2015	8260B	**1.2**	9.9E-03	0.13	8.9E-03	**0.24**
	6/10/2015	8260B	**1.0**	6.6E-03	0.099	0.016	**0.21**
	3/11/2015	8260B	**0.97**	0.012	0.17	<0.0075	**0.27**

8.17 MKTF Wells
BTEX Analytical Results

STANDARDS			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED Tap Water (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
Well ID	**DATE SAMPLED**	**METHOD**					
	11/14/2014	8260B	**0.58**	<0.005	0.023	<0.0075	**0.18**
	9/23/2014	8260B	**0.53**	<0.01	0.012	<0.015	**0.23**
	4/8/2014	8260B	**1.0**	9.2E-03	0.13	0.013	**0.27**
	11/1/2013	8021B	**1.4**	<0.02	0.16	<0.04	NA
MKTF-26	6/9/2016	8260B	**0.33**	1.9E-02	3.6E-03	7.7E-03	0.082
	2/22/2016	8260B	**0.15**	1.4E-03	<0.005	<0.0075	0.055
	11/4/2015	8260B	**0.76**	7.2E-03	6.9E-03	<0.0075	0.094
	8/20/2015	8260B	**0.38**	0.005	<0.005	<0.0075	0.065
	6/10/2015	8260B	**0.8**	8.7E-03	6.9E-03	<0.0075	0.079
	3/11/2015	8260B	**0.8**	7.8E-03	7.1E-03	<0.0075	0.099
	11/14/2014	8260B	**0.97**	0.011	<0.005	<0.0075	0.094
	9/24/2014	8260B	**1.6**	0.019	0.012	1.6E-03	0.084
	4/8/2014	8260B	**0.017**	<0.001	<0.001	<0.0015	0.049
	11/1/2013	8021B	**0.57**	0.008	0.15	0.002	NA
MKTF-27	10/28/2016	8260B	<0.001	<0.001	<0.001	<0.0015	0.021
	9/7/2016	8260B	3.1E-04	2.1E-04	<0.001	<0.0015	0.026
	6/8/2016	8260B	1.5E-04	4.0E-04	1.5E-04	9.1E-04	0.042
	2/22/2016	8260B	<0.001	<0.001	<0.001	<0.0015	0.015
	11/4/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.031
	8/20/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.033
	6/9/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.034
	3/11/2015	8260B	<0.001	<0.001	<0.001	<0.0015	8.9E-03
	11/14/2014	8260B	<0.001	<0.001	<0.001	<0.0015	0.019
	9/24/2014	8260B	<0.001	<0.001	<0.001	<0.0015	0.011
	4/8/2014	8260B	<0.002	<0.002	<0.002	<0.003	0.038
	11/19/2013	8021B	<0.001	<0.001	<0.001	<0.002	NA
MKTF-28	10/28/2016	8260B	<0.001	<0.001	<0.001	<0.0015	5.2E-04
	9/8/2016	8260B	<0.001	<0.001	<0.001	<0.0015	2.1E-03
	6/8/2016	8260B	<0.001	<0.001	<0.001	<0.0015	5.4E-04
	2/23/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/4/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.01
	8/20/2015	8260B	<0.001	<0.001	<0.001	<0.0015	1.4E-03
	6/9/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/11/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/14/2014	8260B	<0.001	<0.001	<0.001	<0.0015	0.013
	9/24/2014	8260B	<0.001	<0.001	<0.001	<0.0015	0.016
MKTF-29	10/28/2016	8260B	<0.001	<0.001	<0.001	<0.0015	0.005
	9/7/2016	8260B	<0.001	<0.001	<0.001	<0.0015	0.0024
	6/9/2016	8260B	<0.001	<0.001	<0.001	<0.0015	8.8E-03
	2/23/2016	8260B	<0.001	<0.001	<0.001	<0.0015	0.012
	11/4/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.01
	8/20/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.011
	6/10/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.014
	3/11/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.017
	9/24/2014	8260B	<0.001	<0.001	<0.001	<0.0015	0.013
	4/8/2014	8260B	<0.001	<0.001	<0.001	<0.015	0.012
MKTF-30	10/28/2016	8260B	<0.001	<0.001	<0.001	<0.0015	2.0E-03
	9/7/2016	8260B	6.0E-04	<0.001	1.9E-04	<0.0015	8.4E-04
	6/9/2016	8260B	<0.001	<0.001	<0.001	<0.0015	3.6E-03
	2/23/2016	8260B	<0.001	<0.001	<0.001	<0.0015	2.3E-03
	11/4/2015	8260B	<0.001	<0.001	<0.001	<0.0015	2.5E-03
	8/20/2015	8260B	<0.001	<0.001	<0.001	<0.0015	1.9E-03
	6/10/2015	8260B	<0.001	<0.001	<0.001	<0.0015	2.7E-03
	3/11/2015	8260B	<0.001	<0.001	<0.001	<0.0015	1.9E-03
	11/17/2014	8260B	<0.001	<0.001	<0.001	<0.0015	3.7E-03
	9/24/2014	8260B	<0.001	<0.001	<0.001	<0.0015	5.9E-03
	4/9/2014	8260B	<0.001	<0.001	<0.001	<0.0015	0.021
MKTF-31	10/31/2016	8260B	4.8E-04	1.5E-04	<0.001	<0.0015	0.07
	9/8/2016	8260B	7.7E-04	<0.001	<0.001	<0.0015	0.063
	6/9/2016	8260B	7.5E-04	<0.001	<0.001	<0.0015	0.08
	2/23/2016	8260B	6.2E-04	<0.001	<0.001	<0.0015	0.061
	11/4/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.079
	8/21/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.064
	6/10/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.056

8.17 MKTF Wells
BTEX Analytical Results

STANDARDS			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED Tap Water (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
Well ID	**DATE SAMPLED**	**METHOD**					
	3/11/2015	8260B	<0.001	<0.001	<0.001	<0.0015	0.054
	11/17/2014	8260B	<0.001	<0.001	<0.001	<0.0015	0.058
	9/23/2014	8260B	<0.001	<0.001	<0.001	<0.0015	0.055
	4/8/2014	8260B	<0.001	<0.001	<0.001	<0.0015	0.055
MKTF-32	10/31/2016	8260B	4.9E-04	<0.001	<0.001	<0.0015	**0.63**
	9/9/2016	8260B	4.7E-04	<0.002	<0.002	<0.003	**0.75**
	6/9/2016	8260B	8.1E-04	<0.002	<0.002	<0.003	**0.64**
	2/24/2016	8260B	4.0E-04	<0.001	<0.001	<0.0015	**0.62**
	11/5/2015	8260B	<0.001	<0.001	<0.001	<0.0015	**0.59**
	8/21/2015	8260B	<0.002	<0.002	<0.002	<0.003	**0.49**
	6/9/2015	8260B	<0.001	<0.001	<0.001	<0.0015	**0.59**
	3/12/2015	8260B	<0.001	<0.001	<0.001	<0.0015	**0.54**
	11/17/2014	8260B	<0.001	<0.001	<0.001	<0.0015	**0.4**
	9/23/2014	8260B	<0.005	<0.005	<0.005	<0.0075	**0.32**
	4/9/2014	8260B	<0.001	<0.001	<0.001	<0.0015	**0.15**
MKTF-33	11/1/2016	8260B	<0.001	1.5E-04	0.00019	<0.0015	**0.2**
	9/10/2016	8260B	<0.001	<0.001	<0.001	<0.0015	**0.27**
	6/10/2016	8260B	<0.001	<0.001	<0.001	<0.0015	**0.4**
	2/25/2016	8260B	1.6E-04	<0.001	<0.001	<0.0015	**0.31**
	11/9/2015	8260B	<0.001	<0.001	<0.001	<0.0015	**0.58**
	8/21/2015	8260B	<0.001	<0.001	<0.001	<0.0015	**0.63**
	6/9/2015	8260B	<0.001	<0.001	<0.001	<0.0015	**0.49**
	3/12/2015	8260B	<0.001	<0.001	<0.001	<0.0015	**0.48**
	11/17/2014	8260B	<0.001	<0.001	<0.001	<0.0015	**0.41**
	9/23/2014	8260B	<0.005	<0.005	<0.005	<0.0075	**0.45**
	4/10/2014	8260B	**0.028**	<0.001	<0.001	<0.0015	**0.36**
MKTF-34	11/8/2016	8260B	1.4E-04	<0.001	1.6E-04	<0.0015	9.7E-04
	9/13/2016	8260B	<0.001	<0.001	<0.001	<0.0015	3.5E-04
	6/10/2016	8260B	4.5E-04	<0.001	2.6E-04	<0.0015	5.8E-04
	2/25/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/3/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/18/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/8/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/12/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/17/2014	8260B	<0.001	<0.001	<0001	<0.0015	<0.001
	9/24/2014	8260B	<0.001	<0.001	<0001	<0.0015	<0.001
	4/9/2014	8260B	<0.002	<0.002	<0.002	<0.003	<0.002
MKTF-35	11/3/2016	8260B	**0.065**	2.6E-04	0.055	0.01	0.01
	9/13/2016	8260B	**0.37**	5.2E-04	0.025	0.011	0.012
	6/10/2016	8260B	**0.067**	2.7E-04	0.012	5.5E-03	0.019
	2/26/2016	8260B	**0.046**	<0.005	0.034	4.5E-03	0.02
	11/3/2015	8260B	**0.19**	<0.001	0.039	2.3E-03	0.048
	8/18/2015	8260B	**0.97**	<0.005	0.16	<0.0075	0.061
	6/4/2015	8260B	**0.79**	2.3E-03	0.19	2.1E-03	0.027
	3/17/2015	8260B	**0.47**	5.2E-03	0.32	0.17	0.033
	11/21/2014	8260B	**0.039**	<0.001	0.052	0.073	0.066
MKTF-36	11/8/2016	8260B	**8.4**	0.021	**1.3**	0.13	**6.0**
	9/13/2016	8260B	SPH DETECTED				
	8/18/2015	8260B	**9.0**	0.033	**1.6**	0.064	**8.0**
	6/4/2015	8260B	**8.1**	0.034	**1.6**	0.14	**8.4**
	3/17/2015	8260B	**8.3**	0.023	**1.4**	0.078	**8.3**
	11/21/2014	8260B	**8.4**	0.032	**1.5**	0.56	**7.2**
MKTF-37	11/3/2016	8260B	**0.96**	0.012	0.014	**0.84**	0.03
	8/18/2015	8260B	**0.76**	0.14	0.024	**1.6**	0.05
	6/4/2015	8260B	**1.2**	0.058	0.017	**0.93**	0.054
	3/17/2015	8260B	**0.82**	0.27	0.029	0.49	0.057
	11/21/2014	8260B	**0.14**	0.2	9.3E-03	**1.3**	0.027
MKTF-38	11/1/2016	8260B	3.9E-04	<0.001	<0.001	<0.0015	1.0E-03
	9/13/2016	8260B	9.3E-04	<0.001	<0.001	<0.0015	6.0E-04

8.17 MKTF Wells
BTEX Analytical Results

STANDARDS			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED Tap Water (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
Well ID	**DATE SAMPLED**	**METHOD**					
	6/8/2016	8260B	1.2E-03	<0.001	<0.001	<0.0015	5.2E-03
	2/29/2016	8260B	3.4E-04	<0.001	<0.001	<0.0015	5.9E-04
	11/9/2015	8260B	1.3E-03	<0.001	<0.001	<0.0015	4.3E-03
	8/24/2015	8260B	1.7E-03	<0.001	<0.001	<0.0015	7.3E-03
	6/10/2015	8260B	**5.4E-03**	<0.001	<0.001	<0.0015	7.6E-03
	3/16/2015	8260B	**9.2E-03**	0.018	<0.001	<0.0015	0.006
	11/21/2014	8260B	2.8E-03	<0.001	2.9E-03	3.1E-03	7.4E-03
MKTF-39	11/1/2016	8260B	**0.013**	<0.005	0.059	<0.0075	<0.005
	9/13/2016	8260B	**0.016**	<0.005	0.06	<0.0075	<0.005
	6/8/2016	8260B	**0.016**	<0.001	0.061	7.E-03	4.E-04
	3/3/2016	8260B	**0.019**	<0.001	0.064	6.9E-04	<0.001
	11/9/2015	8260B	**0.021**	<0.001	0.064	<0.0015	<0.001
	8/23/2015	8260B	**0.023**	<0.001	0.06	1.6E-03	<0.001
	6/10/2015	8260B	**0.025**	<0.002	0.064	<0.003	<0.002
	3/16/2015	8260B	**0.016**	<0.002	0.039	<0.003	<0.002
	11/18/2014	8260B	**0.02**	<0.005	0.06	<0.0075	<0.005
MKTF-40	10/31/2016	8260B	<0.001	0.00015	<0.001	<0.0015	3.0E-04
	9/8/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/9/2016	8260B	<0.001	<0.001	<0.001	<0.0015	6.2E-04
	2/23/2016	8260B	<0.001	<0.001	<0.001	<0.0015	6.1E-04
	11/4/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/21/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/10/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/11/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/21/2014	8260B	<0.001	<0.001	<0.001	<0.001	<0.001
MKTF-41	10/31/2016	8260B	<0.001	<0.001	<0.001	<0.0015	9.1E-04
	9/9/2016	8260B	<0.001	<0.001	<0.001	<0.0015	4.1E-04
	6/9/2016	8260	<0.001	<0.001	<0.001	<0.0015	0.003
	2/24/2016	8260B	<0.001	<0.001	<0.001	<0.0015	6.8E-04
	11/5/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/21/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/10/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/12/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/18/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
MKTF-42	10/31/2016	8260B	3.4E-03	4.9E-04	1.9E-03	0.027	0.00067
	9/9/2016	8260B	0.004	3.3E-04	1.8E-03	0.025	5.6E-04
	6/9/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	2/24/2016	8260B	4.1E-03	2.2E-03	1.1E-03	0.026	<0.001
	11/5/2015	8260B	3.3E-03	<0.001	1.7E-03	0.022	<0.001
	8/21/2015	8260B	2.8E-03	<0.001	0.001	0.017	<0.001
	6/10/2015	8260B	1.6E-03	<0.001	<0.001	0.011	<0.001
	3/11/2015	8260B	1.7E-03	<0.001	<0.001	0.01	<0.001
	11/18/2014	8260B	**0.012**	<0.01	<0.01	0.056	<0.01
MKTF-43	10/31/2016	8260B	<0.001	1.3E-04	<0.001	<0.0015	<0.001
	9/9/2016	8260B	4.1E-04	<0.001	<0.001	<0.0015	<0.001
	6/9/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	2/24/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/5/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/21/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/10/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/11/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/18/2014	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
MKTF-44	11/1/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/9/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/9/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	2/24/2016	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/9/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/17/2015	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/10/2015	8260B	<0.002	<0.002	<0.002	<0.003	<0.002
	3/12/2015	8260B	<0.002	<0.002	<0.002	<0.003	<0.002
	11/21/2014	8260B	<0.002	<0.002	<0.002	<0.003	<0.002

8.17 MKTF Wells
BTEX Analytical Results

STANDARDS			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	**0.75**	0.75	**0.62**	NE
40 CFR 141.62 MCL			**0.005**	1.0	**0.7**	10	NE
NMED Tap Water (JUL 2015)			0.00454	1.09	0.0149	0.193	**0.143**
EPA RSL for Tap Water (MAY 2016)			4.6E-04	1.1	0.0015	0.19	0.014
Well ID	**DATE SAMPLED**	**METHOD**					

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.17.1 MKTF WELLS

General Chemistry Analytical Results

STANDARDS			PARAMETERS							
			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	**1.6**	**250.0**	NE	**10**	**600.0**
40 CFR 141.62 MCL			NE	NE	NE	4.0	NE	**10.0**	10	NE
NMED Tap Water (JUL 2015)			NE	NE	NE	1.18	NE	1.97	31.6	NE
EPA RSL for Tap Water (MAY 2016)			NE	NE	NE	0.8	NE	2	32	NE
Well ID	**DATE SAMPLED**	**METHOD**								
MKTF-1	2/24/2016	8015D/300.0	3	51	<5.0	<0.1	**470**	2.6	2.6	0.55
	11/4/2015	8015D/300.0	200	36	<5.0	1.1	**450**	<1.0	<1.0	<0.5
	8/21/2015	8015D/300.0	34	26	<5.0	0.78	**460**	<1.0	<1.0	<2.5
	6/9/2015	8015D	110	31	<50	NA	NA	NA	NA	NA
	3/11/2015	8015D	370	31	<50	NA	NA	NA	NA	NA
	6/6/2014	8015D/300.0	510	50	<50	0.6	**400**	<1.0	<1.0	0.58
MKTF-2	10/28/2016	8015D/300.0	1.4	6.1	<5.0	**2.7**	**380**	<1.0	<1.0	40
	9/7/2016	8015D/300.0	1.5	6.2	<5.0	**2.3**	**410**	<1.0	<1.0	48
	6/10/2016	8015D/300.0	1.2	5.2	<5.0	**2.7**	**390**	<1.0	<1.0	50
	2/24/2016	8015D/300.0	1.0	1.2	<5.0	**1.8**	**520**	8.8	8.8	160
	11/4/2015	8015D/300.0	1.0	2.5	<5.0	**2.5**	**360**	<1.0	<1.0	49
	8/21/2015	8015D/300.0	<1.0	2	<5.0	1.2	**550**	6.2	6.2	130
	6/9/2015	8015D	<1.0	3.5	<5.0	NA	NA	NA	NA	NA
	3/11/2015	8015D	<1.0	1.3	<5.0	NA	NA	NA	NA	NA
	11/14/2014	8015D/300.0	<1.0	0.61	<5.0	<1.0	**830**	<1.0	<1.0	230
	9/18/2014	8015D	1.7	6.8	<5.0	NA	NA	NA	NA	NA
	6/6/2014	8015D/300.0	<1.0	1.5	<5.0	0.76	**750**	<1.0	<1.0	200
	4/8/2014	8015D	<1.0	0.67	<5.0	NA	NA	NA	NA	NA
	10/28/2013	8015D	<1.0	3.8	<5.0	NA	NA	NA	NA	NA
MKTF-4	11/2/2016	8015D/300.0	4.1	9.8	<5.0	1	180	<0.5	<0.5	6.1
	9/11/2016	8015D/300.0	5.3	10	<5.0	0.74	220	<1.0	<1.0	4.1
	6/9/2016	8015D/300.0	3.9	9	<5.0	0.79	250	<1.0	<1.0	7.0
	2/29/2016	8015D/300.0	3.6	9.2	<5.0	0.97	250	<1.0	<1.0	3.2
	11/3/2015	8015D/300.0	3.0	8.6	<5.0	0.96	**300**	<1.0	<1.0	3.0
	8/18/2015	8015D	3.7	6.8	<5.0	0.86	**300**	<0.1	<0.1	4.2
	6/4/2015	8015D	2.3	6.2	<5.0	NA	NA	NA	NA	NA
	3/16/2015	8015D	1.9	4.8	<5.0	NA	NA	NA	NA	NA
	11/13/2014	8015D/300.0	2.0	4.2	<5.0	<1.0	250	<1.0	<1.0	26
	9/15/2014	8015D	1.5	3.4	<5.0	NA	NA	NA	NA	NA
	6/4/2014	300.0/8015D	2.9	8.2	<5.0	0.7	0.19	<1.0	<1.0	6.8
	4/11/2014	8015D	4.5	9.4	<5.0	NA	NA	NA	NA	NA
MKTF-9	11/2/2016	300.0/8015D	1.6	7.8	<5.0	0.46	150	<0.5	<0.5	71
	9/11/2016	8015D/300.0	2.3	6.7	<5.0	0.26	160	<1.0	<1.0	57
	6/9/2016	300.0/8015D	1.7	7.8	<5.0	0.35	170	<1.0	<1.0	81
	2/29/2016	300.0/8015D	2.5	7.4	<5.0	0.47	170	<1.0	<1.0	70
	11/3/2015	300.0/8015D	5.3	9.8	<5.0	0.46	170	<0.1	<0.1	110
	8/18/2015	8015D/300.0	4.7	7.1	<5.0	0.43	170	<0.1	<0.1	130
	6/4/2015	8015D	1.8	4.1	<5.0	NA	NA	NA	NA	NA
	3/16/2015	8015D	<1.0	3.3	<5.0	NA	NA	NA	NA	NA
	11/14/2014	8015D/300.0	2.1	4.4	<5.0	<1.0	180	<1.0	<1.0	140
	9/18/2014	8015D	1.4	5.6	<5.0	NA	NA	NA	NA	NA
	6/5/2014	8015D/300.0	2.7	6.2	<5.0	0.43	180	<1.0	<1.0	78
	4/14/2014	8015D	3.6	5.7	<5.0	NA	NA	NA	NA	NA
MKTF-10	11/2/2016	300.0/8015D	3.8	100	<5.0	<0.05	230	<0.5	<0.5	<2.5
	9/11/2016	8015D/300.0	6	110	<5.0	<2.0	240	<1.0	<1.0	<2.5
	6/9/2016	300.0/8015D	8	110	<5.0	<2.0	**260**	<1.0	<1.0	0.4
	2/29/2016	300.0/8015D	14	110	<5.0	<2.0	**280**	<1.0	<1.0	<2.5
	11/3/2015	300.0/8015D	8	100	<5.0	<2.0	**380**	<0.5	<0.5	<2.5
	8/18/2015	8015D/300.0	55	130	<5.0	<5.0	**390**	<0.5	<0.5	<2.5
	6/4/2015	8015D	23	79	<5.0	NA	NA	NA	NA	NA
	3/16/2015	8015D	32	80	<5.0	NA	NA	NA	NA	NA
	11/14/2014	8015D/300.0	74	84	<50	**270**	**260**	<2.0	<2.0	<5.0
	9/18/2014	8015D	7.7	88	<5.0	NA	NA	NA	NA	NA
	6/6/2014 [1]	300.0/8015D	5.5	64	<5.0	NA	NA	NA	NA	NA
	4/11/2014	8015D	5.9	88	<5.0	NA	NA	NA	NA	NA
MKTF-11	11/2/2016	300.0/8015D	1.6	27	<5.0	<0.5	**900**	<0.5	<0.5	2.2
	9/11/2016	8015D/300.0	1.7	29	<5.0	<2.0	**880**	<1.0	<1.0	2.2
	6/9/2016	300.0/8015D	1.4	39	<5.0	<2.0	**1000**	<1.0	<1.0	2.2
	2/29/2016	300.0/8015D	1.5	42	<5.0	<0.5	**1600**	<1.0	<1.0	0.58
	11/3/2015	300.0/8015D	2.9	71	<5.0	<2.0	**740**	<0.5	<0.5	<2.5
	8/18/2015	8015D/300.0	1.6	36	<5.0	<2.0	**1200**	<2.0	<0.1	1.2

8.17.1 MKTF WELLS

General Chemistry Analytical Results

STANDARDS			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	**1.6**	**250.0**	NE	**10**	**600.0**
40 CFR 141.62 MCL			NE	NE	NE	4.0	NE	**10.0**	10	NE
NMED Tap Water (JUL 2015)			NE	NE	NE	1.18	NE	1.97	31.6	NE
EPA RSL for Tap Water (MAY 2016)			NE	NE	NE	0.8	NE	2	32	NE
Well ID	**DATE SAMPLED**	**METHOD**								
MKTF-11	6/4/2015	8015D	2.8	71	<5.0	NA	NA	NA	NA	NA
	3/16/2015	8015D	2.6	55	<5.0	NA	NA	NA	NA	NA
	11/13/2014	8015D/300.0	1.8	35	<5.0	**6.5**	**780**	<1.0	<1.0	<5.0
	9/15/2014	8015D	1.8	57	<5.0	NA	NA	NA	NA	NA
	6/5/2014	8015D/300.0	2.6	48	<5.0	**7.0**	**480**	<1.0	<1.0	11
	4/11/2014	300.0/8015D	2.7	53	<5.0	NA	NA	NA	NA	NA
MKTF-15	11/2/2016	8015D/300.0	6.2	110	<5.0	<0.05	**2800**	<2.0	<0.5	<2.5
	9/11/2016	8015D/300.0	17		<5.0	<2.0	**3100**	<4.0	<4.0	<2.5
	9/17/2014	8015D	17	88	<5.0	NA	NA	NA	NA	NA
	6/5/2014	8015D/300.0	10	57	<5.0	<2.0	**5200**	<4.0	<4.0	1.2
	4/10/2014	8015D	4.1	71	<5.0	NA	NA	NA	NA	NA
	11/1/2013	8015D	2.4	65	<5.0	NA	NA	NA	NA	NA
MKTF-16	11/3/2016	300.0/8015D	3.3	70	<5.0	1.2	**380**	<0.5	<0.5	<2.5
	9/12/2016	300.0/8015D	3.5	62	<5.0	1.3	**390**	<1.0	<1.0	0.36
	6/9/2016	300.0/8015D	3	69	<5.0	NA	NA	NA	NA	NA
	2/29/2016	300.0/8015D	2.6	73	<5.0	1	**710**	<1.0	<1.0	0.068
	11/3/2015	300.0/8015D	3.1	91	<5.0	0.88	**1000**	<1.0	<1.0	<2.5
	8/23/2015	8015D/300.0	3.7	83	<5.0	0.66	**1700**	<1.0	<1.0	<2.5
	6/8/2015	8015D	4.3	69	<5.0	NA	NA	NA	NA	NA
	3/16/2015	8015D	2.9	61	<5.0	NA	NA	NA	NA	NA
	11/18/2014	8015D/300.0	2.7	53	<5.0	1.5	**700**	<0.5	<0.5	<2.5
	9/17/2014	8015D	4.6	66	<5.0	NA	NA	NA	NA	NA
	6/5/2014	8015D/300.0	5.7	71	<5.0	1.1	**540**	<1.0	<1.0	<2.5
	4/10/2014	8015D	3.5	67	<5.0	NA	NA	NA	NA	NA
	11/19/2013	8015D	4.2	68	<5.0	NA	NA	NA	NA	NA
MKTF-17	11/8/2016	300.0/8015D	1.3	4.5	<5.0	0.77	64	<1.0	<1.0	45
	9/13/2016	300.0/8015D	1.6	7.5	<5.0	0.83	70	0.58	0.58	45
	6/10/2016	300.0/8015d	2.1	9.2	<5.0	NA	NA	NA	NA	NA
	2/26/2016	300.0/8015D	<1.0	1.6	<5.0	0.54	76	<1.0	<1.0	180
	11/3/2015	300.0/8015D	1.5	2.5	<5.0	0.61	78	<0.1	<0.1	120
	8/18/2015	8015D/300.0	1.1	1.7	<0.005	0.5	74	<0.1	<0.01	160
	6/8/2015	8015D	1.3	0.77	<5.0	NA	NA	NA	NA	NA
	3/12/2015	8015D	<1.0	0.8	<5.0	NA	NA	NA	NA	NA
	11/18/2014	8015D/300.0	1.4	1.2	<5.0	0.66	84	<0.1	<0.1	200
	9/18/2014	8015D	1.5	3.3	<5.0	NA	NA	NA	NA	NA
	6/6/2014: 6/16/14	8015D/300.0	4.2	8.3	<5.0	0.61	98	<0.1	<0.1	60
	4/9/2014	8015D	2.6	8.6	<5.0	NA	NA	NA	NA	NA
	11/19/2013	8015D	5.8	17	<5.0	NA	NA	NA	NA	NA
MKTF-18	11/8/2016	300.0/8015D	1.7	0.6	<5.0	0.62	160	<1.0	<1.0	0.23
	9/13/2016	300.0/8015D	2.2	0.56	<5.0	0.67	170	<1.0	<1.0	0.34
	6/10/2016	8015D/300.0	1.9	0.71	<5.0	0.63	180	<1.0	<1.0	0.21
	2/26/2016	300.0/8015D	0.3	0.79	<5.0	0.64	160	<1.0	<1.0	0.26
	11/3/2015	300.0/8015D	2.5	1.3	<5.0	0.61	160	<0.1	<0.1	<0.5
	8/18/2015	8015D/300.0	34	1.3	<5.0	0.55	170	<0.1	<0.1	<0.5
	6/8/2015	8015D	3.3	1.4	<5.0	NA	NA	NA	NA	NA
	3/17/2015	8015D	5.4	1.8	<5.0	NA	NA	NA	NA	NA
	11/18/2014	8015D/300.0	2.3	1.4	<5.0	0.68	160	<0.5	<0.5	<2.5
	9/18/2014	8015D	3.1	1.4	<5.0	NA	NA	NA	NA	NA
	6/6/2014	8015D/300.0	7.8	2.2	<5.0	0.65	170	<1.0	<1.0	0.95
	4/14/2014	8015D	4.4	2.2	<5.0	NA	NA	NA	NA	NA
	11/19/2013	8015D	11	4	<5.0	NA	NA	NA	NA	NA
MKTF-19	11/8/2016	300.0/8015D	6.7	26	<5.0	0.28	110	<1.0	<1.0	0.89
	9/13/2016	300.0/8015D	7.3	25	<5.0	0.34	130	<1.0	<1.0	0.57
	6/10/2016	8015D/300.0	7.2	21	<5.0	0.17	150	<1.0	<1.0	0.28
	2/25/2016	300.0/8015D	7.8	22	<5.0	0.24	150	<1.0	<1.0	<2.5
	11/3/2015	300.0/8015D	13	34	<5.0	<0.5	130	<0.5	<0.5	<2.5
	8/18/2015	8015D/300.0	27	20	<5.0	0.18	140	<0.1	0.17	<0.5
	6/8/2015	8015D	9.9	19	<5.0	NA	NA	NA	NA	NA
	3/12/2015	8015D	9.3	14	<5.0	NA	NA	NA	NA	NA
	11/18/2014	8015D/300.0	13	20	<5.0	<0.5	110	<0.5	<0.5	<2.5
	9/24/2014	8015D	61	16	<5.0	NA	NA	NA	NA	NA
	4/9/2014	8015D	17	18	<5.0	NA	NA	NA	NA	NA
	11/5/2013	8015D	7.2	10	<5.0	NA	NA	NA	NA	NA

8.17.1 MKTF WELLS

General Chemistry Analytical Results

STANDARDS			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	**1.6**	**250.0**	NE	**10**	**600.0**
40 CFR 141.62 MCL			NE	NE	NE	4.0	NE	**10.0**	10	NE
NMED Tap Water (JUL 2015)			NE	NE	NE	1.18	NE	1.97	31.6	NE
EPA RSL for Tap Water (MAY 2016)			NE	NE	NE	0.8	NE	2	32	NE
Well ID	**DATE SAMPLED**	**METHOD**								
MKTF-20	11/3/2016	8015D	9.4	65	<5.0	**2.6**	**1500**	<0.5	<0.5	13
	9/12/2016	8015D/300.0	8.7	72	<5.0	**2.1**	**370**	<1.0	<1.0	1.2
	6/9/2016	8015D/300.0	9	63	<5.0	**3.1**	**450**	<1.0	<1.0	10
	3/1/2016	8015D	6.9	73	<5.0	NA	NA	NA	NA	NA
	6/8/2015	8015D	9.9	30	<5.0	NA	NA	NA	NA	NA
	3/16/2015	8015D	4.5	37	<5.0	NA	NA	NA	NA	NA
	11/18/2014	8015D/300.0	24	45	<5.0	0.87	82	<0.5	<0.5	16
	4/11/2014	8015D	16	120	<5.0	NA	NA	NA	NA	NA
MKTF-21	11/3/2016	8015D/300.0	3.4	34	<5.0	0.91	110	<0.5	<0.5	3.9
	9/12/2016	8015D/300.0	3.9	28	<5.0	<0.5	81	<1.0	<1.0	19
	6/9/2016	8015D	3.9	32	<5.0	NA	NA	NA	NA	NA
	3/1/2016	8015D	3.6	24	<5.0	NA	NA	NA	NA	NA
	6/10/2015	8015D	Not enough water to collect for this set.							
	3/16/2015	8015D	3.8	16	<5.0	NA	NA	NA	NA	NA
	4/11/2014	8015D	27	78	<5.0	NA	NA	NA	NA	NA
MKTF-22	11/1/2016	8015D	2.1	26	<5.0	0.41	100	<0.1	<0.1	3.3
	9/10/2016	8015D/300.0	2.7	17	<5.0	0.23	98	<1.0	<1.0	4.1
	6/10/2016	8015D/300.0	2.5	27	<5.0	0.37	99	<1.0	<1.0	4.2
	2/25/2016	8015D	2.7	24	<5.0	0.37	95	<1.0	<1.0	4.7
	11/9/2015	8015D	1.6	14	<5.0	0.41	100	<0.1	<0.1	17
	8/20/2015	8015D/300.0	<1.0	9.3	<5.0	<0.5	120	<1.0	<1.0	48
	6/9/2015	8015D	2.5	15	<5.0	NA	NA	NA	NA	NA
	3/12/2015	8015D	2.5	13	<5.0	NA	NA	NA	NA	NA
	11/17/2014	8015D/300.0	1.6	6.8	<5.0	0.38	96	7.1	7.1	19
	4/10/2014	8015D	2.6	10	<5.0	NA	NA	NA	NA	NA
	11/19/2013	8015D	2.1	6.5	<5.0	NA	NA	NA	NA	NA
MKTF-23	6/10/2016	8015D/300.0	710	38	<50	0.8	240	<1.0	<1.0	0.36
	2/25/2016	8015D/300.0	56	32	<5.0	0.7	240	<1.0	<1.0	0.38
	11/9 & 10/2015	8015D/300.0	71	34	<5.0	1.0	250	<0.1	<0.1	14
	8/21/2015	8015D/300.0	35	29	<5.0	0.57	**300**	<1.0	<1.0	<2.5
	6/9/2015	8015D	23	32	<5.0	NA	NA	NA	NA	NA
	3/12/2015	8015D	14	35	<5.0	NA	NA	NA	NA	NA
	11/17/2014	8015D/300.0	7.7	26	<5.0	0.43	**390**	<1.0	<1.0	5.9
	9/23/2014	8015D	14	23	<5.0	NA	NA	NA	NA	NA
	11/5/2013	8015D	1.1	12	<5.0	NA	NA	NA	NA	NA
MKTF-24	10/28/2016	8015D	1.1	30	<5.0	0.078	**440**	<1.0	<1.0	46
	9/7/2016	8015D/300.0	1.2	19	<5.0	<0.1	**630**	<1.0	<1.0	51
	6/8/2016	8015D/300.0	<1.0	14	<5.0	0.097	**700**	<1.0	<1.0	60
	2/22/2016	8015D/300.0	1.5	29	<5.0	0.058	**650**	<1.0	<1.0	50
	11/4/2015	8015D	<1.0	10	<5.0	<0.1	**850**	<1.0	<1.0	68
	8/20/2015	8015D/300.0	<1.0	9.5	<5.0	<0.5	**850**	<1.0	<1.0	72
	6/10/2015	8015D	<1.0	9.8	<5.0	NA	NA	NA	NA	NA
	3/11/2015	8015D	<1.0	9.2	<5.0	NA	NA	NA	NA	NA
	11/14/2014	8015D/300.0	<1.0	5.7	<5.0	<1.0	**630**	<1.0	<1.0	72
	9/24/2014	8015D	<1.0	6.3	<5.0	NA	NA	NA	NA	NA
	4/8/2014	8015D	<1.0	4.2	<5.0	NA	NA	NA	NA	NA
	11/1/2013	8015D	1.5	8.4	<5.0	NA	NA	NA	NA	NA
MKTF-25	11/1/2016	300.0/8015D	0.88	10	<5.0	0.052	**530**	<1.0	<1.0	36
	9/9/2016	300.0/8015D	0.94	7.1	<5.0	0.073	**560**	<1.0	<1.0	34
	6/9/2016	8015D/300.0	0.89	13	<5.0	0.18	**680**	<1.0	<1.0	35
	2/23/2016	300.0/8015D	1.1	14	<5.0	0.12	**670**	<1.0	<1.0	31
	11/5/2015	300.0/8015D	1.2	12	<5.0	<0.1	**750**	<1.0	<1.0	35
	8/21/2015	8015D/300.0	1.1	8.7	<5.0	<0.5	**870**	<1.0	<1.0	31
	6/10/2015	8015D/300.0	<1.0	11	<5.0	NA	NA	NA	NA	NA
	3/11/2015	8015D	1.1	10	<5.0	NA	NA	NA	NA	NA
	11/14/2014	8015D/300.0	<1.0	4.8	<5.0	<1.0	**880**	<1.0	<1.0	35
	9/23/2014	8015D	<1.0	5.8	<5.0	NA	NA	NA	NA	NA
	4/8/2014	8015D	1.2	6.9	<5.0	NA	NA	NA	NA	NA
MKTF-26	6/9/2016	8015D/300.0	<1.0	1.5	<5.0	0.15	**2300**	<1.0	<1.0	230
	2/22/2016	8015D/300.0	<1.0	1.5	<5.0	0.2	**2000**	11	11	210
	11/4/2015	8015D/300.0	<1.0	2.3	<5.0	0.69	**1000**	<1.0	<1.0	94
	8/20/2015	8015D/300.0	<1.0	1.5	<5.0	<0.5	**1800**	<1.0	<1.0	220
	6/10/2015	8015D	<1.0	2.5	<5.0	NA	NA	NA	NA	NA
	3/11/2015	8015D	<1.0	2.5	<5.0	NA	NA	NA	NA	NA
	11/14/2014	8015D/300.0	<1.0	2.0	<5.0	<1.0	**1500**	<2.0	<2.0	160
	9/24/2014	8015D	<1.0	2.8	<5.0	NA	NA	NA	NA	NA
	4/8/2014	8015D	<1.0	0.2	<5.0	NA	NA	NA	NA	NA
	11/1/2013	8015D	<1.0	1.7	<5.0	NA	NA	NA	NA	NA

8.17.1 MKTF WELLS

General Chemistry Analytical Results

STANDARDS			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	**1.6**	**250.0**	NE	**10**	**600.0**
40 CFR 141.62 MCL			NE	NE	NE	4.0	NE	**10.0**	10	NE
NMED Tap Water (JUL 2015)			NE	NE	NE	1.18	NE	1.97	31.6	NE
EPA RSL for Tap Water (MAY 2016)			NE	NE	NE	0.8	NE	2	32	NE
Well ID	**DATE SAMPLED**	**METHOD**								
MKTF-27	10/28/2016	8015D/300.0	<1.0	0.034	<5.0	0.94	**2200**	1.4	1.4	410
	9/7/2016	8015D/300.0	<1.0	0.068	<5.0	0.29	**2600**	<2.0	<2.0	400
	6/8/2016	8015D/300.0	<0.001	0.084	<0.005	1.2	**2800**	1.1	1.1	350
	2/22/2016	8015D/300.0	<1.0	<0.05	<5.0	0.8	**2400**	1	1	360
	11/4/2015	8015D/300.0	<1.0	<0.05	<5.0	0.8	**2700**	<1.0	<1.0	450
	8/20/2015	8015D/300.0	<1.0	0.064	<5.0	0.81	**2700**	<1.0	<1.0	330
	6/9/2015	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	3/11/2015	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	11/14/2014	8015D/300.0	<1.0	<0.05	<5.0	<1.0	**2500**	<2.0	<2.0	470
	9/24/2014	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	4/8/2014	8015D	<1.0	<0.01	<5.0	NA	NA	NA	NA	NA
	11/19/2013	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
MKTF-28	10/28/2016	300.0/8015D	<1.0	<0.05	<5.0	1.3	**370**	1.1	1.1	130
	9/8/2016	8015D/300.0	<1.0	0.023	<5.0	0.66	**470**	0.73	0.73	190
	6/8/2016	8015D/300.0	<1.0	<0.05	<5.0	0.93	**490**	0.84	0.84	160
	2/23/2016	300.0/8015D	<1.0	<0.05	<5.0	0.93	**500**	4.9	4.9	160
	11/4/2015	300.0/8015D	<1.0	<0.05	<5.0	0.86	**510**	<1.0	<1.0	160
	8/20/2015	8015D/300.0	<1.0	<0.05	<5.0	0.86	**520**	<1.0	<1.0	150
	6/9/2015	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	3/11/2015	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	11/14/2014	8015D/300.0	<1.0	<0.05	<5.0	<1.0	**540**	<1.0	<1.0	260
	9/24/2014	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
MKTF-29	10/28/2016	8015D/300.0	<1.0	<0.05	<5.0	1.1	80	<1.0	<1.0	**560**
	9/7/2016	8015D/300.0	<1.0	0.029	<5.0	0.85	81	<1.0	<1.0	**590**
	6/9/2016	8015D/300.0	<1.0	<0.05	<5.0	1.1	82	<1.0	<1.0	**650**
	2/2/2016	8015D/300.0	<1.0	<0.05	<5.0	0.96	91	<1.0	<1.0	**640**
	11/4/2015	8015D/300.0	<1.0	<0.05	<5.0	0.92	90	<1.0	<1.0	**650**
	8/20/2015	8015D/300.0	<1.0	<0.05	<5.0	0.83	95	<1.0	<1.0	440
	6/10/2015	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	3/11/2015	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	9/24/2014	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	4/9/2014	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
MKTF-30	10/28/2016	8015D/300.0	<1.0	0.14	<5.0	1.1	**810**	<1.0	<1.0	400
	9/7/2016	8015D/300.0	<1.0	0.23	<5.0	0.79	**970**	<1.0	<1.0	330
	6/9/2016	8015D/300.0	<1.0	0.095	<5.0	1.3	**890**	<1.0	<1.0	330
	2/23/2016	8015D/300.0	<1.0	0.13	<5.0	1.1	**1100**	<1.0	<1.0	320
	11/4/2015	8015D/300.0	<1.0	0.11	<5.0	0.99	**1300**	<1.0	<1.0	380
	8/20/2015	8015D/300.0	<1.0	0.17	<5.0	0.79	**1300**	<1.0	<1.0	450
	6/10/2015	8015D	<1.0	0.071	<5.0	NA	NA	NA	NA	NA
	3/11/2015	8015D	<1.0	0.053	<5.0	NA	NA	NA	NA	NA
	11/17/2014	8015D/300.0	<1.0	0.054	<5.0	0.56	**1400**	<1.0	<1.0	**730**
	9/24/2014	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	4/9/2014	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
MKTF-31	10/31/2016	8015D/300.0	<1.0	0.16	<5.0	<0.1	**720**	<2.0	<2.0	70
	9/8/2016	8015D/300.0	<1.0	0.23	<5.0	<0.1	**940**	<1.0	<1.0	70
	6/9/2016	8015D/300.0	<1.0	0.16	<5.0	<0.1	**770**	<1.0	<1.0	69
	2/23/2016	8015D/300.0	<1.0	0.1	<5.0	<0.1	**830**	<1.0	<1.0	68
	11/4/2015	8015D/300.0	1.3	0.086	<5.0	<0.1	**850**	<1.0	<1.0	69
	8/21/2015	8015D/300.0	<1.0	0.1	<5.0	<0.5	**890**	<1.0	<1.0	71
	6/10/2015	8015D	<1.0	0.11	<5.0	NA	NA	NA	NA	NA
	3/11/2015	8015D	<1.0	0.077	<5.0	NA	NA	NA	NA	NA
	11/17/2014	8015D/300.0	<1.0	0.068	<5.0	<0.1	**920**	<1.0	<1.0	82
	9/23/2014	8015D	<1.0	0.061	<5.0	NA	NA	NA	NA	NA
	4/8/2014	8015D	<1.0	0.11	<5.0	NA	NA	NA	NA	NA
MKTF-32	10/31/2016	8015D/300.0	<1.0	0.92	<50	0.16	**420**	<1.0	<1.0	95
	9/9/2016	8015D/300.0	<1.0	0.79	<5.0	0.18	**460**	<1.0	<1.0	91
	6/9/2016	8015D/300.0	<1.0	0.81	<5.0	0.28	**520**	<1.0	<1.0	100
	2/24/2016	8015D/300.0	<1.0	0.88	<5.0	0.28	**450**	<1.0	<1.0	91
	11/5/2015	8015D/300.0	<1.0	0.57	<5.0	0.19	**510**	<1.0	<1.0	100
	8/21/2015	8015D/300.0	<1.0	0.42	<5.0	<0.5	**580**	<1.0	<1.0	110
	6/9/2015	8015D	<1.0	0.58	<5.0	NA	NA	NA	NA	NA
	3/12/2015	8015D	<1.0	0.46	<5.0	NA	NA	NA	NA	NA
	11/17/2014	8015D/300.0	<1.0	0.28	<5.0	0.27	**610**	<1.0	<1.0	100
	9/23/2014	8015D	<1.0	0.23	<5.0	NA	NA	NA	NA	NA
	4/9/2014	8015D	<1.0	0.22	<5.0	NA	NA	NA	NA	NA

8.17.1 MKTF WELLS
General Chemistry Analytical Results

STANDARDS			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	**1.6**	**250.0**	NE	**10**	**600.0**
40 CFR 141.62 MCL			NE	NE	NE	4.0	NE	**10.0**	10	NE
NMED Tap Water (JUL 2015)			NE	NE	NE	1.18	NE	1.97	31.6	NE
EPA RSL for Tap Water (MAY 2016)			NE	NE	NE	0.8	NE	2	32	NE
Well ID	**DATE SAMPLED**	**METHOD**								
MKTF-33	11/1/2016	8015D/300.0	<1.0	0.31	<5.0	0.29	87	<1.0	<1.0	320
	9/10/2016	8015D/300.0	<1.0	5.2	<5.0	0.13	94	<1.0	<1.0	340
	6/10/2016	300.0/8015D	<1.0	0.69	<5.0	0.3	100	<1.0	<1.0	340
	2/25/2016	8015D/300.0	<1.0	0.35	<5.0	0.25	100	<1.0	<1.0	310
	11/9/2015	8015D/300.0	<1.0	0.53	<5.0	0.34	99	<0.1	<0.1	290
	8/21/2015	8015D/300.0	<1.0	0.47	<5.0	<0.5	95	<1.0	<1.0	260
	6/9/2015	8015D	<1.0	0.42	<5.0	NA	NA	NA	NA	NA
	3/12/2015	300.0/8015D	<1.0	0.35	<5.0	NA	NA	NA	NA	NA
	11/17/2014	8015D/300.0	<1.0	0.36	<5.0	0.31	98	<1.0	<1.0	360
	9/23/2014	8015D	<1.0	0.25	<5.0	NA	NA	NA	NA	NA
	4/9/2014	8015D	<1.0	0.21	<5.0	NA	NA	NA	NA	NA
MKTF-34	11/8/2016	300.0/8015D	<1.0	<0.05	<5.0	0.46	240	8.3	8.3	180
	9/13/2016	300.0/8015D	<1.0	0.033	<5.0	0.42	**300**	9.1	9.1	200
	6/10/2016	300.0/8015D	<1.0	<0.05	<5.0	0.52	**370**	7.7	7.7	130
	2/25/2016	300.0/8015D	<1.0	<0.05	<5.0	0.53	**380**	18	**18**	110
	11/3/2015	300.0/8015D	<1.0	<0.05	<5.0	0.46	**370**	<0.1	8.6	100
	8/18/2015	8015D/300.0	<1.0	<0.05	<5.0	0.44	**350**	<0.1	8.6	100
	6/8/2015	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	3/12/2015	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	11/17/2014	8015D/300.0	<1.0	<0.05	<5.0	0.54	**400**	6.6	6.6	73
	9/24/2014	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	4/9/2014	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
MKTF-35	11/3/2016	8015D/300.0	<1.0	1.7	<5.0	0.82	54	<1.0	<1.0	310
	9/13/2016	8015D/300.0	<1.0	2.0	<5.0	0.77	62	<1.0	<1.0	270
	6/10/2016	8015D/300.0	<1.0	1.4	<5.0	0.79	51	<1.0	<1.0	210
	2/26/2016	8015D/300.0	0.94	0.87	<5.0	0.45	65	<1.0	<1.0	99
	11/3/2015	8015D/300.0	2.8	1.5	<5.0	0.79	100	<0.1	<0.1	16
	8/18/2015	8015D/300.0	2.9	4.7	<5.0	0.73	110	<0.1	<0.1	20
	6/4/2015	8015D	2.3	2.9	<5.0	NA	NA	NA	NA	NA
	3/17/2015	8015D	6.0	3.7	<5.0	NA	NA	NA	NA	NA
	11/21/2014	8015D	3.3	1.6	<5.0	NA	NA	NA	NA	NA
MKTF-36	11/8/2016	8015D	11	40	<5.0	0.67	130	<1.0	<1.0	<2.5
	8/18/2015	8015D	14	39	<5.0	0.6	140	<0.5	<0..5	<2.5
	6/4/2015	8015D	13	30	<5.0	NA	NA	NA	NA	NA
	3/17/2015	8015D	10	38	<5.0	NA	NA	NA	NA	NA
	11/21/2014	8015D	6.8	25	<5.0	NA	NA	NA	NA	NA
MKTF-37	11/3/2017	8015D/300.0	9.3	13	<5.0	0.46	120	<1.0	<1.0	56
	6/4/2015	8015D	5.7	12	<5.0	NA	NA	NA	NA	NA
	3/17/2015	8015D	4.5	11	<5.0	NA	NA	NA	NA	NA
	11/21/2014	8015D	<1.0	8.7	<5.0	NA	NA	NA	NA	NA
MKTF-38	11/1/2016	8015D	<1.0	0.065	<5.0	0.82	200	0.14	8.8	320
	9/13/2016	8015D/300.0	<1.0	0.09	<5.0	0.73	260	5	5	330
	6/8/2016	8015D/300.0	<1.0	0.06	<5.0	0.7	270	9.9	9.9	360
	2/29/2016	8015D/300.0	<1.0	0.14	<5.0	0.75	110	7.2	7.2	450
	11/9/2015	8015D	<1.0	0.12	<5.0	0.91	210	<0.1	<0.01	400
	8/24/2015	8015D/300.0	<1.0	0.099	<5.0	0.69	210	<0.1	3.2	390
	6/10/2015	8015D	<1.0	0.2	<5.0	NA	NA	NA	NA	NA
	3/16/2015	8015D	<1.0	0.33	<5.0	NA	NA	NA	NA	NA
	11/21/2014	8015D	3.8	0.12	<5.0	NA	NA	NA	NA	NA
MKTF-39	11/1/2016	8015D	17	0.36	<5.0	0.97	**1300**	<0.5	<0.5	<2.5
	9/13/2016	8015D/300.0	10	1.1	<5.0	0.26	**1900**	<2.0	<2.0	<10
	6/8/2016	8015D/300.0	19	0.67	<5.0	0.54	**2300**	<2.0	<2.0	0.21
	3/3/2016	8015D/300.0	13	0.46	<5.0	0.71	**2900**	<4.0	<4.0	4.2
	11/9/2015	8015D	23	0.44	<5.0	<2.0	**6400**	<2.0	<0.1	<0.5
	8/23/2015	8015D/300.0	13	0.93	<5.0	<0.5	**9100**	<4.0	<4.0	<2.5
	6/10/2015	8015D	44	0.44	<5.0	NA	NA	NA	NA	NA
	3/16/2015	8015D	6.2	0.21	<5.0	NA	NA	NA	NA	NA
	11/18/2014	8015D	15	0.39	<5.0	NA	NA	NA	NA	NA

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General Chemistry Analytical Results

STANDARDS			DRO (mg/L)	GRO (mg/L)	MRO (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	**1.6**	**250.0**	NE	**10**	**600.0**
40 CFR 141.62 MCL			NE	NE	NE	4.0	NE	**10.0**	10	NE
NMED Tap Water (JUL 2015)			NE	NE	NE	1.18	NE	1.97	31.6	NE
EPA RSL for Tap Water (MAY 2016)			NE	NE	NE	0.8	NE	2	32	NE
Well ID	**DATE SAMPLED**	**METHOD**								
MKTF-40	10/31/2016	8015D/300.0	<1.0	<0.05	<5.0	<2.0	**3700**	<4.0	<4.0	500
	9/8/2016	8015D/300.0	<1.0	<0.05	<5.0	<2.0	**5300**	<4.0	<4.0	460
	6/9/2016	8015D/300.0	<1.0	<0.05	<5.0	<2.0	**5300**	<4.0	<4.0	390
	2/23/2016	8015D/300.0	<1.0	<0.05	<5.0	<0.1	**4900**	<10	<10	520
	11/4/2015	8015D/300.0	<1.0	<0.05	<5.0	<0.1	**4600**	<1.0	<1.0	540
	8/21/2015	8015D/300.0	<1.0	<0.05	<5.0	<0.5	**3400**	<4.0	<4.0	**890**
	6/10/2015	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	3/11/2015	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	11/21/2014	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
MKTF-41	10/31/2016	8015D/300.0	<1.0	<0.05	<5.0	0.26	**730**	5.4	5.4	64
	9/9/2016	8015D/300.0	<1.0	<0.05	<5.0	0.29	**910**	5.7	5.7	60
	6/9/2016	8015D/300.0	<1.0	<0.05	<5.0	0.51	**750**	5.6	5.6	71
	2/24/2016	8015D/300.0	<1.0	<0.05	<5.0	0.47	**790**	4.7	4.7	74
	11/5/2015	8015D/300.0	<1.0	<0.05	<5.0	0.35	**830**	4.2	4.2	68
	8/21/2015	8015D/300.0	<1.0	<0.05	<5.0	<0.5	**900**	5.6	5.6	79
	6/9/2015	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	3/12/2015	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	11/18/2014	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
MKTF-42	10/31/2016	8015D/300.0	62	0.11	<5.0	<0.5	**900**	<2.0	<2.0	110
	9/9/2016	8015D/300.0	62	0.7	<5.0	0.43	**880**	<1.0	<1.0	110
	6/9/2016	8015D/300.0	60	0.16	<5.0	0.68	**890**	<1.0	<1.0	130
	2/24/2016	8015D/300.0	52	0.12	<5.0	0.69	**860**	<1.0	<1.0	120
	11/5/2015	8015D/300.0	45	0.11	<5.0	0.6	**870**	<1.0	<1.0	120
	8/21/2015	8015D/300.0	52	0.21	<5.0	0.62	**930**	<1.0	<1.0	130
	6/9/2015	8015D	60	0.1	<5.0	NA	NA	NA	NA	NA
	3/11/2015	8015D	27	<0.5	<5.0	NA	NA	NA	NA	NA
	11/18/2014	8015D	44	<0.05	<5.0	NA	NA	NA	NA	NA
MKTF-43	10/31/2016	8015D/300.0	<1.0	<0.05	<5.0	<2.0	**19000**	**62**	**62**	**1300**
	9/9/2016	8015D/300.0	<1.0	0.026	<5.0	<2.0	**16000**	<10	<10	**1800**
	6/9/2016	8015D/300.0	<1.0	<0.05	<5.0	<2.0	**15000**	<10	<10	**1300**
	2/24/2016	8015D/300.0	<1.0	<0.05	<5.0	<2.0	**15000**	<10	<10	**1200**
	11/5/2015	8015D/300.0	<1.0	<0.05	<5.0	<2.0	**16000**	<10	<10	**1600**
	8/21/2015	8015D/300.0	<1.0	<0.05	<5.0	<2.0	**17000**	<10	<10	**1700**
	6/10/2015	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	3/11/2015	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	11/18/2014	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
MKTF-44	11/1/2016	8015D/300.0	<1.0	<0.05	<5.0	0.32	150	0.81	0.81	100
	9/9/2016	8015D/300.0	<1.0	0.023	<5.0	0.36	**310**	1.8	1.8	97
	6/9/2016	8015D/300.0	<1.0	<0.05	<5.0	0.29	**610**	3.6	3.6	96
	2/24/2016	8015D/300.0	<1.0	<0.05	<5.0	0.45	**270**	1.1	1.1	100
	11/9/2015	8015D/300.0	<1.0	<0.05	<5.0	0.56	91	<0.5	0.75	110
	8/17/2015	8015D/300.0	<1.0	<0.1	<5.0	0.58	110	<1.0	<1.0	120
	6/10/2015	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	3/12/2015	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA
	11/21/2014	8015D	<1.0	<0.05	<5.0	NA	NA	NA	NA	NA

DEFINITIONS
NE = Not established
NA = Not analyzed
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES
1) No samples collected for General Chemistry - not enough water.

8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS			PARAMETERS											
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.002	0.03	NE
NMED Tap Water (JUL 2015)			5.13E-04	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.00626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	6.3E-04	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**													
MKTF-1	2/24/2016	200.7/200.8	2.0E-03	**3.3**	<0.002	<0.006	<0.006	**5.5**	1.1E-03	**2.2**	2.8E-03	<0.005	<0.0002	2.9E-04	9.9E-03
	11/4/2015	200.7/200.8	<0.005	**3.0**	<0.002	<0.006	<0.006	**8.3**	6.9E-03	**2.1**	8.2E-03	<0.005	<0.0002	6.1E-04	0.016
	8/21/2015	200.7/200.8	3.3E-03	**2.8**	<0.002	<0.006	<0.006	**8.7**	6.2E-03	**2.1**	<0.01	<0.005	<0.0002	7.8E-04	0.014
	6/9/2015	200.7/200.8	3.4E-03	**2.4**	<0.002	6.5E-03	<0.006	**8.1**	4.2E-03	**2.2**	4.5E-03	<0.005	<0.0002	<0.0005	0.015
	3/11/2015	200.7/200.8	3.2E-03	**2.1**	<0.002	<0.006	<0.006	**5.6**	0.002	**1.9**	5.6E-03	<0.005	<0.0002	<0.001	<0.01
	6/6/2014	200.7/200.8	0.007	**4.7**	<0.002	0.035	0.038	**35**	**0.074**	**4.1**	9.1E-03	<0.005	<0.0002	<0.005	0.078
MKTF-2	10/28/2016	200.7/200.8	3.0E-03	0.22	<0.002	<0.006	<0.006	**1.5**	2.7E-03	**0.53**	0.0048	<0.005	<0.0002	0.026	0.038
	9/7/2016	200.7/200.8	4.1E-03	0.32	<0.002	5.4E-03	3.8E-03	**5.9**	8.9E-03	**0.65**	6.4E-03	<0.005	<0.0002	**0.038**	0.018
	6/10/2016	200.7/200.8	2.4E-03	0.19	<0.002	2.7E-03	<0.006	**2.6**	3.4E-03	**0.4**	4.6E-03	<0.005	<0.0002	**0.033**	0.012
	2/24/2016	200.7/200.8	4.5E-03	0.73	<0.002	9.8E-03	0.018	**14.0**	2.3E-02	**1.1**	0.0033	<0.005	<0.0002	**0.063**	0.057
	11/4/2015	200.7/200.8	4.3E-03	0.17	<0.002	<0.006	<0.006	0.3	3.8E-03	**0.44**	<0.05	<0.005	<0.0002	**0.032**	0.012
	8/21/2015	200.7/200.8	4.4E-03	0.28	<0.002	7.3E-03	8.9E-03	**8.6**	8.8E-03	**0.81**	2.6E-03	<0.005	<0.0002	**0.05**	0.033
	6/9/2015	200.7/200.8	3.5E-03	0.14	<0.002	<0.006	<0.006	**1.6**	2.3E-03	**0.55**	2.8E-03	<0.005	<0.0002	**0.032**	<0.01
	3/11/2015	200.7/200.8	4.6E-03	0.21	<0.002	<0.006	7.4E-03	**4.6**	5.7E-03	**0.64**	4.3E-03	<0.005	<0.0002	**0.048**	0.017
	11/14/2014	200.7/200.8	5.9E-03	0.22	<0.002	<0.006	0.012	**7.0**	7.9E-03	**0.68**	<0.01	<0.005	<0.0002	**0.073**	0.03
	9/18/2014	200.7/200.8	1.7E-03	0.15	<0.002	<0.006	<0.006	0.15	<0.001	**0.57**	3.1E-03	<0.005	<0.0002	0.013	<0.01
	6/6/2014	200.7/200.8	<0.005	0.2	<0.002	<0.006	<0.006	**4.2**	<0.005	**0.7**	6.9E-03	<0.005	<0.0002	**0.056**	0.017
MKTF-4	11/2/2016	200.7/200.8	0.01	**2.8**	<0.002	<0.006	<0.006	**4.6**	6.3E-04	**1.5**	0.01	<0.005	<0.0002	4.1E-03	0.006
	9/11/2016	200.7/200.8	0.01	**3.4**	<0.002	<0.006	<0.006	**6.7**	3.0E-03	**1.5**	0.014	<0.005	<0.0002	2.8E-03	7.2E-03
	6/9/2016	200.7/200.8	8.9E-03	**3.1**	<0.002	<0.006	<0.006	**6.2**	1.9E-03	**1.7**	9.8E-03	<0.005	<0.0002	4.8E-03	0.016
	2/29/2016	200.7/200.8	8.1E-03	**3.0**	<0.002	<0.006	<0.006	**5.6**	3.6E-03	**1.5**	4.3E-03	<0.005	<0.0002	4.2E-03	0.022
	11/3/2015	200.7/200.8	**0.014**	**3.4**	<0.002	<0.006	<0.006	**16**	6.3E-03	**1.7**	0.016	<0.005	<0.0002	1.9E-03	0.012
	8/18/2015	200.7/200.8	8.5E-03	**3.0**	<0.002	<0.006	6.1E-03	**17**	**0.017**	**1.9**	<0.01	<0.005	<0.0002	4.2E-03	0.025
	6/4/2015	200.7/200.8	8.2E-03	**2.5**	<0.002	8.7E-03	<0.006	**13**	9.7E-03	**1.9**	<0.01	<0.005	<00002	5.3E-03	0.017
	3/16/2015	200.7/200.8	<0.01	**1.8**	<0.002	9.2E-03	0.012	**11**	**0.022**	**2.5**	0.016	<0.005	<0.0002	0.017	0.03
	11/13/2014	200.7/200.8	7.9E-03	**1.9**	<0.002	8.6E-03	0.015	**15**	**0.023**	**2.5**	<0.05	<0.005	<0.0002	0.013	0.03
	9/15/2014	200.7/200.8	6.0E-03	**2.0**	<0.002	0.015	0.021	**20**	**0.036**	**2.9**	7.8E-03	<0.005	<0.0002	0.02	0.044
	6/4/2014	200.7/200.8	6.1E-03	**1.4**	<0.002	8.5E-03	0.013	**7.9**	0.013	**2.1**	0.013	<0.005	<0.0002	0.009	0.02
MKTF-9	11/2/2016	200.7/200.8	2.8E-03	0.47	<0.002	<0.006	<0.006	**1.7**	1.6E-03	**3.6**	5.8E-03	<0.005	<0.0002	6.6E-03	0.003
	9/11/2016	200.7/200.8	3.3E-03	0.52	<0.002	<0.006	<0.006	**2.3**	1.9E-03	**3.8**	6.8E-03	<0.005	<0.0002	6.4E-03	<0.01
	6/9/2016	200.7/200.8	2.3E-03	0.49	<0.002	<0.006	<0.006	**2.1**	1.5E-03	**3.6**	4.7E-03	<0.005	<0.0002	6.9E-03	<0.01
	2/29/2016	200.7/200.8	2.0E-03	0.64	<0.002	<0.006	<0.006	**4.0**	0.004	**4.2**	2.3E-03	<0.005	<0.0002	4.8E-03	0.012
	11/3/2015	200.7/200.8	4.5E-03	0.71	<0.002	<0.006	<0.006	**8.8**	0.011	**4.3**	<0.05	<0.005	<0.0002	5.1E-03	0.019
	8/18/2015	200.7/200.8	4.2E-03	0.81	<0.002	<0.006	8.9E-03	**7.7**	0.015	**3.7**	<0.005	<0.005	<0.0002	5.3E-03	0.027
	6/4/2015	200.7/200.8	<0.005	0.34	<0.002	<0.006	<0.006	**3.1**	<0.005	**3.0**	<0.005	<0.005	<0.0002	7.6E-03	<0.01
	3/16/2015	200.7/200.8	2.9E-03	0.22	<0.002	<0.002	<0.002	**2.0**	1.5E-03	**2.4**	5.3E-03	<0.005	<0.0002	0.014	0.01
	11/14/2014	200.7/200.8	<0.005	0.39	<0.002	<0.006	<0.006	**4.5**	5.3E-03	**2.7**	<0.01	<0.005	<0.0002	0.01	0.013
	9/18/2014	200.7/200.8	<0.005	0.33	<0.002	<0.006	<0.006	**2.4**	<0.001	**2.8**	<0.005	<0.005	<0.0002	0.012	<0.01
	6/5/2014	200.7/200.8	<0.005	0.58	<0.002	<0.006	<0.006	**6.7**	5.8E-03	**3.8**	7.3E-03	<0.005	<0.0002	0.006	0.015

8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.002	0.03	NE
NMED Tap Water (JUL 2015)			5.13E-04	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.00626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	6.3E-04	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**													
MKTF-10	11/2/2016	200.7/200.8	9.6E-03	**6**	<0.002	<0.006	<0.006	**10**	1.1E-03	**5.2**	4.9E-03	<0.005	<0.0002	8.6E-04	4.4E-03
	9/11/2016	200.7/200.8	8.3E-03	**11**	<0.002	<0.006	<0.006	**26**	1.8E-03	**12**	5.8E-03	<0.005	<0.0002	1.2E-03	2.7E-03
	6/9/2016	200.7/200.8	6.0E-03	**13**	<0.002	<0.006	<0.006	**36**	0.002	**15**	3.3E-03	<0.005	<0.0002	8.0E-04	0.019
	2/29/2016	200.7/200.8	8.6E-03	**16**	<0.002	<0.006	<0.006	**57**	2.7E-03	**21**	0.002	<0.005	<0.0002	1.5E-03	0.014
	11/3/2015	200.7/200.8	5.9E-03	**14**	<0.002	<0.006	<0.006	**61**	**0.025**	**19**	<0.05	<0.005	<0.0002	1.9E-03	0.032
	8/18/2015	200.7/200.8	**3.8E-02**	**15**	<0.002	0.013	<0.006	**64**	**0.58**	**22**	<0.05	<0.005	0.0003	**0.063**	0.49
	6/4/2015	200.7/200.8	**0.015**	**19**	<0.002	**0.077**	0.1	**120**	**0.19**	**24**	<0.01	<0.005	<0.0002	0.014	0.15
	3/16/2015	200.7/200.8	**0.019**	**22**	<0.002	0.036	0.095	**100**	**0.2**	**27**	<0.01	<0.005	<0.0002	0.019	0.14
	11/14/2014	200.7/200.8	<0.04	**45**	<0.004	**0.099**	0.24	**250**	**0.58**	**49**	<0.04	<0.01	<0.0004	**0.052**	0.31
	9/18/2014	200.7/200.8	<0.005	**12**	<0.002	<0.006	<0.006	**46**	1.5E-03	**15**	3.2E-03	<0.005	<0.0002	1.3E-03	<0.01
	6/6/2014	200.7/200.8	<0.005	**7.7**	<0.002	<0.006	<0.006	**25**	<0.005	**9.5**	6.1E-03	<0.005	<0.0002	<0.005	<0.01
MKTF-11	11/2/2016	200.7/200.8	**0.014**	**2.7**	<0.002	<0.006	<0.006	**8.4**	1.1E-03	**4.0**	5.0E-03	<0.005	<0.0002	6.5E-03	0.017
	9/11/2016	200.7/200.8	**0.013**	**2.9**	<0.002	<0.006	<0.006	**7.1**	1.1E-03	**4.1**	5.4E-03	<0.005	<0.0002	6.5E-03	0.012
	6/9/2016	200.7/200.8	**0.012**	**3.4**	<0.002	<0.006	<0.006	**8.1**	1.3E-03	**4.0**	3.1E-03	<0.005	<0.0002	9.1E-03	0.016
	2/29/2016	200.7/200.8	**0.013**	**3.9**	<0.002	<0.006	<0.006	**11**	2.7E-03	**6.4**	2.1E-03	<0.005	<0.0002	5.4E-03	0.018
	11/3/2015	200.7/200.8	7.8E-03	**3.8**	<0.002	<0.006	<0.006	**15**	0.0031	**3.5**	5.4E-03	<0.005	<0.0002	7.3E-04	0.017
	8/18/2015	200.7/200.8	9.1E-03	**2.4**	<0.002	<0.006	<0.006	**14**	7.1E-03	**4.0**	0.003	<0.005	<0.0002	2.6E-03	0.024
	6/4/2015	200.7/200.8	5.6E-03	**2.7**	<0.002	<0.006	<0.006	0.013	2.7E-03	**3.0**	<0.005	<0.005	<0.0002	<0.0025	0.013
	3/16/2015	200.7/200.8	8.6E-03	**1.9**	<0.002	<0.006	<0.006	**10**	6.8E-03	**3.1**	0.006	<0.005	<0.0002	2.1E-03	0.024
	11/13/2014	200.7/200.8	8.7E-03	**1.7**	<0.002	<0.006	<0.006	**5.8**	<0.005	**3.4**	<0.005	<0.005	<0.0002	<0.005	0.012
	9/15/2014	200.7/200.8	7.2E-03	**1.4**	<0.002	<0.006	<0.006	**8.1**	6.2E-03	**3.1**	2.9E-03	<0.005	<0.0002	5.8E-03	0.021
	6/5/2014	200.7/200.8	6.3E-03	**1.2**	<0.002	6.1E-03	<0.006	**8.8**	9.6E-03	**2.8**	5.5E-03	<0.005	<0.0002	<0.005	0.038
MKTF-15	11/2/2016	200.7/200.8	3.7E-03	**22**	<0.002	<0.006	<0.006	**34**	0.006	**6.8**	6.9E-03	<0.005	<0.0002	<0.0025	0.28
	9/11/2016	200.7/200.8	2.2E-03	**23**	<0.002	<0.006	<0.006	**35**	5.9E-03	**7.7**	5.4E-03	<0.005	<0.0002	<0.0025	0.018
	9/17/2015	200.7/200.8	<0.005	**29**	<0.002	<0.006	<0.006	**18**	<0.01	**9.8**	<0.005	<0.005	<0.0002	<0.01	0.023
	6/5/2014	200.7/200.8	<0.01	**25**	<0.002	7.4E-03	<0.006	**11**	0.011	**7.9**	<0.01	<0.005	<0.0002	<0.005	0.017
MKTF-16	11/3/2016	200.7/200.8	**0.015**	0.67	<0.002	<0.006	3.8E-03	**3.6**	3.4E-03	**0.86**	0.01	<0.005	<0.0002	7.7E-03	0.02
	9/12/2016	200.7/200.8	**0.014**	0.72	<0.002	<0.006	<0.006	**4.6**	2.9E-03	**0.96**	0.014	<0.005	<0.0002	6.7E-03	0.022
	2/29/2016	200.7/200.8	9.2E-03	**1.3**	<0.002	<0.006	<0.006	**6.5**	3.1E-03	**1.8**	4.9E-03	<0.005	<0.0002	6.6E-04	0.034
	11/3/2015	200.7/200.8	**0.018**	**3.0**	<0.002	<0.006	<0.006	**13**	2.7E-03	**3.9**	0.021	<0.005	<0.0002	5.3E-04	0.023
	8/23/2015	200.7/200.8	**0.014**	**3.9**	<0.002	<0.006	<0.006	**16**	1.2E-03	**5.5**	<0.02	<0.005	<0.0002	<0.0005	0.01
	6/8/2015	200.7/200.8	9.7E-03	**2.2**	<0.002	<0.006	9.1E-03	**12**	<0.0025	**3.3**	7.2E-03	<0.025	<0.0002	<0.0025	0.023
	3/16/2015	200.7/200.8	<0.01	1.0	<0.002	<0.006	0.023	**7.2**	<0.01	**1.3**	<0.02	<0.005	<0.0002	<0.01	0.035
	11/18/2014	200.7/200.8	0.01	**1.1**	<0.002	<0.006	<0.006	**10**	4.2E-03	**1.3**	<0.05	<0.005	<0.0002	1.6E-03	0.05
	9/17/2014	200.7/200.8	**0.012**	0.8	<0.002	<0.006	<0.006	**8.6**	3.1E-03	**1.2**	<0.01	<0.005	<0.0002	<0.001	0.034
	6/5/2014	200.7/200.8	**0.023**	0.9	<0.002	<0.006	0.008	**7.9**	<0.005	**1.2**	0.013	<0.005	<0.0002	0.015	0.089
MKTF-17	11/8/2016	200.7/200.8	6.4E-03	0.6	<0.002	<0.006	<0.006	**1.9**	1.3E-03	**2.8**	3.4E-03	<0.005	<0.0002	7.7E-03	6.8E-03
	9/13/2016	200.7/200.8	0.007	0.58	<0.002	<0.006	<0.006	**3.3**	3.1E-03	**2.8**	3.5E-03	<0.005	7.1E-05	0.011	6.1E-03
	2/26/2016	200.7/200.8	4.6E-03	0.12	<0.002	<0.006	<0.006	1.0	9.5E-04	**2.6**	0.0012	<0.005	<0.0002	0.018	5.6E-03
	11/3/2015	200.7/200.8	**0.02**	**12**	<0.01	<0.006	<0.006	0.7	**0.35**	**3.5**	<0.02	<0.005	<0.0002	**0.048**	0.33
	8/18/2015	200.7/200.8	5.2E-03	0.2	<0.002	<0.006	9.7E-03	**1.7**	3.7E-03	**2.9**	<0.005	<0.005	<0.0002	0.018	0.011
	6/8/2015	200.7/200.8	<0.005	0.24	<0.002	<0.006	<0.006	**2.6**	3.2E-03	**3.3**	<0.005	<0.005	<0.0002	0.02	0.015
	3/12/2015	200.7/200.8	5.7E-03	0.17	<0.002	<0.006	<0.006	**1.8**	1.7E-03	**3.1**	2.3E-03	<0.005	<0.0002	0.022	<0.01
	11/18/2014	200.7/200.8	5.1E-03	0.21	<0.002	<0.006	<0.006	**2.0**	3.1E-03	**3.0**	<0.01	<0.005	<0.0002	0.025	0.019
	9/18/2014	200.7/200.8	5.5E-03	0.21	<0.002	<0.006	<0.006	**1.8**	1.6E-03	**3.3**	1.9E-03	<0.005	<0.0002	0.022	0.013
	6/16/2014	200.7/200.8	6.3E-03	0.61	<0.002	0.013	0.012	**10**	**0.022**	**4.1**	4.5E-03	<0.005	<0.0002	0.027	0.036

8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.002	0.03	NE
NMED Tap Water (JUL 2015)			5.13E-04	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.00626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	6.3E-04	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**													
MKTF-18	11/8/2016	200.7/200.8	3.3E-03	**1.7**	<0.002	<0.006	<0.006	**2.2**	4.1E-04	**1.8**	5.9E-03	<0.005	<0.0002	1.1E-03	<0.01
	9/13/2016	200.7/200.8	3.3E-03	**1.8**	<0.002	<0.006	<0.006	**3.3**	1.3E-03	**2.0**	4.9E-03	<0.005	6.4E-05	1.3E-03	3.7E-03
	6/10/2016	200.7/200.8	2.7E-03	**1.9**	<0.002	<0.006	<0.006	**2.5**	1.3E-03	**1.9**	5.7E-03	<0.005	<0.0002	1.2E-03	<0.01
	2/26/2016	200.7/200.8	2.2E-03	**2.3**	<0.002	4.3E-03	5.7E-03	**6.4**	6.4E-03	**2.1**	1.9E-03	<0.005	<0.0002	1.6E-03	0.02
	11/3/2015	200.7/200.8	8.8E-03	**12**	<0.002	0.046	0.064	**58.0**	**0.14**	**11**	<0.01	<0.005	<0.001	0.015	0.19
	8/18/2015	200.7/200.8	**0.018**	**24**	<0.01	**0.26**	0.21	**110.0**	**0.37**	**22**	<0.01	<0.005	2.5E-04	**0.037**	0.54
	6/8/2015	200.7/200.8	<0.005	**2.5**	<0.002	<0.006	<0.006	**5.0**	<0.0025	**1.8**	<0.005	<0.005	<0.0002	<0.0025	<0.01
	3/17/2015	200.7/200.8	3.1E-03	**3.5**	<0.002	0.012	0.011	**14.0**	**0.021**	**2.7**	<0.01	<0.005	<0.0002	2.6E-03	0.051
	11/18/2014	200.7/200.8	1.9E-03	**2.5**	<0.002	<0.006	<0.006	**4.0**	1.6E-03	**1.8**	<0.01	<0.005	<0.0002	<0.001	0.02
	9/18/2014	200.7/200.8	1.5E-03	**2.6**	<0.002	<0.006	<0.006	**3.2**	2.8E-03	**2.0**	2.5E-03	<0.005	<0.0002	1.5E-03	0.018
	6/6/2014	200.7/200.8	**0.013**	**19**	<0.01	**0.11**	0.12	**81**	**0.29**	**17**	0.013	<0.025	<0.0002	0.022	0.31
MKTF-19	11/8/2016	200.7/200.8	**0.013**	**2.2**	<0.002	8.8E-03	0.015	**33**	**0.033**	**2.6**	8.7E-03	<0.005	<0.0002	5.9E-03	0.07
	9/13/2016	200.7/200.8	**0.015**	**2.1**	<0.002	5.7E-03	8.3E-03	**17**	**0.023**	**2.6**	7.9E-03	<0.005	7.3E-05	4.3E-03	0.065
	6/10/2016	200.7/200.8	**0.016**	**2.6**	<0.002	8.2E-03	0.012	**19**	**0.038**	**3.3**	0.011	<0.005	<0.0002	7.9E-03	0.077
	2/25/2016	200.7/200.8	**0.022**	**2.8**	<0.002	0.012	0.018	**23**	**0.069**	**3.9**	0.019	<0.005	<0.001	2.5E-02	0.01
	11/3/2015	200.7/200.8	**0.018**	**2.7**	<0.002	<0.006	<0.006	**13**	**0.046**	**3.4**	0.01	<0.005	<0.0002	7.7E-03	0.096
	8/18/2015	200.7/200.8	**0.018**	**4.4**	<0.002	0.044	0.06	**64**	**0.14**	**6.3**	6.2E-03	<0.005	<0.0002	0.024	0.22
	6/8/2015	200.7/200.8	**0.019**	**2.5**	<0.002	0.024	0.017	**28**	**0.035**	**4.2**	<0.005	<0.005	<0.0002	4.8E-03	0.082
	3/12/2015	200.7/200.8	**0.017**	**2.7**	<0.002	0.022	0.026	**33**	**0.052**	**4.2**	<0.01	<0.005	<0.0002	6.5E-03	0.078
	11/18/2014	200.7/200.8	**0.022**	**3.6**	<0.002	0.035	0.043	**47**	**0.079**	**5.6**	<0.01	<0.005	<0.0002	0.014	0.11
MKTF-20	11/3/2016	200.7/200.8	**0.029**	**9.3**	<0.002	<0.006	0.019	**22**	9.0E-03	**8.9**	1.3E-02	<0.005	<0.0002	5.2E-03	0.024
	9/12/2016	200.7/200.8	**0.025**	**5.2**	<0.002	<0.006	0.022	**17**	7.2E-03	**4.4**	9.2E-03	<0.005	<0.0002	4.4E-03	0.033
	6/9/2016	200.7/200.8	**0.038**	**4.6**	<0.002	<0.006	0.09	**17**	1.9E-02	**5.0**	9.3E-03	<0.005	7.7E-05	0.02	0.085
	3/16/2015	200.7/200.8	**0.025**	**2.0**	<0.002	<0.006	0.016	**11**	6.6E-03	**3.2**	4.6E-03	<0.005	<0.0002	0.011	0.03
	11/18/2014	200.7/200.8	**0.017**	**4.5**	<0.002	0.022	0.12	**45**	**0.048**	**4.9**	<0.005	<0.005	<0.0002	6.6E-03	0.19
MKTF-21	11/3/2016	200.7/200.8	**0.021**	**4.3**	<0.002	<0.006	<0.006	**33**	3.3E-03	**5.1**	8.6E-03	<0.005	<0.0002	2.2E-03	0.057
	9/12/2016	200.7/200.8	**0.019**	**2.7**	<0.002	<0.006	6.4E-03	**24**	3.1E-03	**4.1**	8.5E-03	<0.005	5.3E-05	0.001	0.048
	6/10/2015	200.7/200.8	Not enough water to collect samples												
	3/16/2015	200.7/200.8	**0.02**	**4.9**	<0.002	0.029	0.1	**55**	**0.079**	**6.4**	<0.01	<0.005	<0.0002	6.6E-03	0.44
MKTF-22	11/1/2016	200.7/200.8	4.4E-03	**1.7**	<0.002	6.2E-03	9.6E-03	**12**	**0.033**	**3.1**	4.7E-03	<0.005	<0.0002	4.1E-03	0.02
	9/10/2016	200.7/200.8	3.2E-03	**1.3**	<0.002	5.1E-03	<0.006	**8.8**	7.2E-03	**2.6**	4.5E-03	<0.005	<0.0002	4.0E-03	0.011
	6/10/2016	200.7/200.8	2.5E-03	**2.2**	<0.002	6.2E-03	<0.006	**17**	**0.022**	**3.7**	3.9E-03	<0.005	<0.0002	4.7E-03	0.033
	2/25/2016	200.7/200.8	2.3E-03	**2**	<0.002	1.2E-02	0.013	**20**	**0.035**	**3.4**	2.5E-03	<0.005	<0.0002	3.9E-03	0.039
	11/9/2015	200.7/200.8	3.6E-03	**1.4**	<0.002	9.9E-03	0.019	**18**	**0.029**	**3.1**	<0.01	<0.005	<0.0002	7.8E-03	0.032
	8/20/2015	200.7/200.8	7.6E-03	**5.6**	<0.002	**0.1**	0.15	**87**	**0.24**	**9.1**	7.4E-03	<0.005	<0.0002	**0.031**	0.21
	6/9/2015	200.7/200.8	<0.005	**2.2**	<0.002	0.018	0.026	**27**	**0.048**	**3.6**	<0.005	<0.005	<0.0002	5.3E-03	0.057
	3/12/2015	200.7/200.8	<0.01	**2.1**	<0.002	0.018	0.015	**21**	**0.035**	**3.5**	<0.01	<0.005	<0.0002	4.7E-03	0.038
	11/17/2014	200.7/200.8	2.8E-03	**1.1**	<0.002	<0.006	<0.006	**15**	0.014	**3.0**	0.004	<0.005	<0.0002	4.1E-03	0.025
MKTF-23	6/10/2016	200.7/200.8	**0.013**	0.8	<0.002	0.0029	<0.006	**4.1**	9.4E-03	**1.7**	9.4E-03	<0.005	<0.0002	5.6E-03	0.016
	2/25/2016	200.7/200.8	9.4E-03	0.67	<0.002	<0.006	<0.006	**3.8**	2.5E-03	**1.6**	3.5E-03	<0.005	<0.0002	2.7E-03	5.4E-03
	11/10/2015	200.7/200.8	**0.013**	0.66	<0.002	<0.006	<0.006	0.29	9.0E-04	**1.4**	<0.02	<0.005	<0.0002	**0.037**	<0.01
	8/21/2015	200.7/200.8	**0.014**	0.9	<0.002	6.2E-03	0.008	**5.4**	8.8E-03	**1.7**	<0.005	<0.005	<0.0002	**0.032**	0.022
	6/9/2015	200.7/200.8	**0.011**	0.83	<0.002	<0.006	0.012	**5.4**	9.3E-03	**1.6**	<0.005	<0.005	<0.0002	0.011	0.027
	3/12/2015	200.7/200.8	**0.013**	0.64	<0.002	<0.006	<0.006	**5.2**	3.5E-03	**1.8**	0.01	<0.005	<0.0002	6.2E-03	0.011
	11/17/2014	200.7/200.8	**0.011**	0.49	<0.002	<0.006	<0.006	**6.2**	0.005	**1.6**	6.7E-03	<0.005	<0.0002	0.016	0.035

8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.002	0.03	NE
NMED Tap Water (JUL 2015)			5.13E-04	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.00626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	6.3E-04	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**													
MKTF-24	10/28/2016	200.7/200.8	2.5E-03	0.28	<0.002	<0.006	<0.006	**1.3**	4.3E-03	**1.8**	5.5E-03	<0.005	<0.0002	0.02	6.5E-03
	9/7/2016	200.7/200.8	4.8E-03	0.34	<0.002	<0.006	<0.006	**3.9**	8.9E-03	**2.0**	7.5E-03	<0.005	<0.0002	0.023	8.5E-03
	6/8/2016	200.7/200.8	**0.026**	**15**	<0.01	**0.19**	0.23	**120**	**0.49**	**35**	0.029	<0.025	0.0006	**0.077**	0.38
	2/22/2016	200.7/200.8	2.8E-03	0.51	<0.002	5.9E-03	8.6E-03	**5.2**	0.013	**2.3**	2.8E-03	<0.005	1.3E-04	0.024	0.018
	11/4/2015	200.7/200.8	5.9E-03	0.87	<0.002	0.017	0.023	**16**	**0.025**	**2.7**	<0.05	<0.005	<0.0002	**0.034**	0.04
	8/20/2015	200.7/200.8	5.7E-03	**1.3**	<0.002	0.025	0.037	**22**	**0.04**	**3.3**	6.7E-03	<0.005	<0.0002	**0.042**	0.06
	6/10/2015	200.7/200.8	<0.005	0.58	<0.002	0.01	0.01	**8.8**	0.013	**2.1**	<0.005	<0.005	<0.0002	**0.038**	0.03
	3/11/2015	200.7/200.8	<0.01	0.71	<0.002	0.014	0.019	**12**	**0.02**	**2.2**	<0.01	<0.005	<0.0002	**0.046**	0.031
	11/14/2014	200.7/200.8	<0.005	0.48	<0.002	9.8E-03	0.015	**6.9**	0.012	**1.9**	<0.01	<0.005	<0.0002	**0.038**	0.026
MKTF-25	11/1/2016	200.7/200.8	4.7E-03	0.39	<0.002	7.5E-03	0.021	**3.2**	0.005	**2.8**	6.2E-03	<0.005	<0.0002	**0.032**	7.2E-03
	9/9/2016	200.7/200.8	4.4E-03	0.45	<0.002	<0.006	0.006	**4.3**	6.3E-03	**3.4**	5.9E-03	<0.005	5.4E-05	0.027	0.012
	6/9/2016	200.7/200.8	4.1E-03	**1.6**	<0.002	1.3E-02	0.034	**15**	**0.043**	**5.6**	7.0E-03	<0.005	1.3E-04	**0.034**	0.038
	2/23/2016	200.7/200.8	2.8E-03	0.31	<0.002	<0.006	<0.006	**1.4**	2.8E-03	**3.1**	2.4E-03	<0.005	7.1E-05	0.029	4.8E-03
	11/5/2015	200.7/200.8	4.9E-03	0.81	<0.002	7.5E-03	0.019	**7.9**	**0.019**	**3.9**	7.6E-03	<0.005	<0.0002	**0.033**	0.021
	8/21/2015	200.7/200.8	3.9E-03	0.49	<0.002	6.5E-03	0.016	**5.2**	8.4E-03	**3.7**	3.8E-03	<0.005	<0.0002	**0.033**	0.015
	6/10/2015	200.7/200.8	<0.005	0.48	<0.002	<0.006	8.3E-03	**5.7**	8.9E-03	**3.7**	<0.005	<0.005	<0.0002	**0.033**	0.018
	3/11/2015	200.7/200.8	4.1E-03	0.58	<0.002	6.4E-03	0.014	**7.5**	0.013	**3.9**	5.8E-03	<0.005	<0.0002	**0.038**	0.017
	11/14/2014	200.7/200.8	<0.005	0.37	<0.002	<0.006	0.011	**2.7**	7.4E-03	**3.6**	<0.01	<0.005	<0.0002	0.03	0.013
MKTF-26	6/9/2016	200.7/200.8	5.0E-03	0.75	<0.002	0.011	0.028	**20**	**0.03**	**1.6**	6.1E-03	<0.005	2.1E-04	**0.099**	0.073
	2/22/2016	200.7/200.8	2.5E-03	0.23	<0.002	3.4E-03	0.011	**64**	0.009	**1.1**	2.9E-03	<0.005	1.4E-04	**0.089**	0.029
	11/4/2015	200.7/200.8	5.0E-03	0.26	<0.002	<0.006	0.016	**9.8**	0.013	**1.3**	<0.05	<0.005	<0.0002	**0.059**	0.04
	8/20/2015	200.7/200.8	5.3E-03	0.23	<0.002	<0.006	0.01	**5.4**	6.7E-03	**1.4**	6.2E-03	<0.005	<0.0002	**0.092**	0.022
	6/10/2015	200.7/200.8	<0.005	0.18	<0.002	<0.006	<0.006	**2.7**	0.003	**1.3**	<0.005	<0.005	<0.0002	**0.054**	0.015
	3/11/2015	200.7/200.8	0.004	0.2	<0.002	<0.006	<0.006	**3.1**	2.9E-03	**1.3**	4.7E-03	<0.005	<0.0002	**0.045**	0.012
	11/14/2014	200.7/200.8	<0.005	0.15	<0.002	<0.006	<0.006	**1.3**	<0.005	**1.4**	<0.01	<0.005	<0.0002	**0.077**	0.014
MKTF-27	10/28/2016	200.7/200.8	2.8E-03	0.089	<0.002	<0.006	<0.006	**1.5**	2.2E-03	**0.24**	8.8E-03	<0.005	<0.0002	**0.063**	0.029
	9/7/2016	200.7/200.8	3.5E-03	0.12	<0.002	3.5E-03	<0.006	**3.7**	5.1E-03	**0.58**	0.01	<0.005	0.000062	**0.060**	0.017
	6/8/2016	200.7/200.8	4.2E-03	0.21	<0.002	5.3E-03	<0.006	**9.6**	0.011	**0.93**	0.011	<0.005	8.6E-05	**0.059**	0.041
	2/22/2016	200.7/200.8	1.5E-03	0.12	<0.002	2.5E-03	<0.006	**3.6**	4.4E-03	**0.43**	3.4E-03	<0.005	9.5E-05	**0.063**	0.02
	11/4/2015	200.7/200.8	<0.005	0.15	<0.002	<0.006	<0.006	**7.4**	7.3E-03	**0.93**	<0.02	<0.005	<0.0002	**0.064**	0.029
	8/20/2015	200.7/200.8	<0.005	0.18	<0.002	<0.006	<0.006	**6.2**	6.4E-03	**0.7**	5.6E-03	<0.005	<0.0002	**0.071**	0.027
	6/9/2015	200.7/200.8	<0.01	0.13	<0.002	<0.006	<0.006	**4.1**	<0.005	**0.58**	<0.01	<0.005	<0.0002	**0.067**	0.023
	3/11/2015	200.7/200.8	<0.01	0.13	<0.002	<0.006	<0.006	**3.3**	<0.01	**0.27**	<0.01	<0.005	<0.0002	**0.071**	0.014
	11/14/2014	200.7/200.8	<0.005	0.13	<0.002	<0.006	<0.006	**3.4**	<0.005	**0.5**	<0.01	<0.005	<0.0002	**0.087**	0.024
MKTF-28	10/28/2016	200.7/200.8	4.4E-03	0.13	<0.002	<0.006	3.1E-03	**3.3**	5.6E-03	0.18	0.013	<0.005	<0.001	**0.15**	0.015
	9/8/2016	200.7/200.8	5.6E-03	0.26	<0.002	6.7E-03	9.4E-03	**11.0**	1.4E-02	**0.44**	0.013	<0.005	1.1E-04	**0.14**	0.049
	6/8/2016	200.7/200.8	5.9E-03	0.14	<0.002	<0.006	<0.006	**4.7**	5.4E-03	**0.21**	0.013	<0.005	<0.0002	**0.15**	0.018
	2/23/2016	200.7/200.8	3.2E-03	0.14	<0.002	2.8E-03	<0.006	**3.7**	4.7E-03	0.18	0.0043	<0.005	6.9E-05	**0.16**	0.018
	11/4/2015	200.7/200.8	<0.01	0.17	<0.002	<0.006	<0.006	**7.4**	7.2E-03	**0.32**	0.02	<0.005	<0.001	**0.14**	0.028
	8/20/2015	200.7/200.8	<0.01	0.18	<0.002	<0.006	7.7E-03	**4.8**	0.005	0.2	<0.01	<0.005	<0.0002	**0.17**	0.02
	6/9/2015	200.7/200.8	<0.01	0.19	<0.002	6.4E-03	<0.006	**5.2**	5.1E-03	0.2	<0.01	<0.005	<0.0002	**0.16**	0.022
	3/11/2015	200.7/200.8	<0.01	0.14	<0.002	<0.006	<0.006	**2.5**	2.8E-03	0.097	0.013	<0.005	<0.0002	**0.17**	0.014
	11/14/2014	200.7/200.8	5.4E-03	0.12	<0.002	<0.006	<0.006	**2.0**	<0.005	**0.38**	<0.05	<0.005	<0.0002	**0.11**	0.015

8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.002	0.03	NE
NMED Tap Water (JUL 2015)			5.13E-04	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.00626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	6.3E-04	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**													
MKTF-29	10/28/2016	200.7/200.8	1.8E-03	0.1	<0.002	<0.006	3.9E-03	**1.6**	2.0E-03	**0.47**	0.002	<0.005	<0.0002	0.013	0.005
	9/7/2016	200.7/200.8	1.8E-03	0.13	<0.002	<0.006	4.4E-03	**2.6**	2.8E-03	**0.52**	2.2E-03	<0.005	6.6E-05	0.011	8.4E-03
	6/9/2016	200.7/200.8	1.3E-03	0.076	<0.002	<0.006	<0.006	**1.5**	9.4E-04	**0.44**	1.7E-03	<0.005	7.6E-05	0.012	0.013
	2/23/2016	200.7/200.8	1.3E-03	0.062	<0.002	<0.006	<0.006	0.9	7.0E-04	**0.51**	1.0E-03	<0.005	6.1E-05	0.014	4.4E-03
	11/4/2015	200.7/200.8	2.0E-03	0.089	<0.002	<0.006	<0.006	**1.3**	1.1E-03	**0.61**	<0.005	<0.005	<0.0002	0.017	<0.01
	8/20/2015	200.7/200.8	2.1E-03	0.17	<0.002	<0.006	0.011	**3.9**	2.8E-03	**0.6**	2.2E-03	<0.005	<0.0002	0.02	0.016
	6/10/2015	200.7/200.8	<0.005	0.1	<0.002	<0.006	<0.006	**2.4**	<0.0025	**0.41**	<0.005	<0.005	<0.0002	0.02	0.011
	3/11/2015	200.7/200.8	0.002	0.057	<0.002	<0.006	<0.006	0.81	<0.001	**0.36**	2.3E-03	<0.005	<0.0002	0.023	<0.01
MKTF-30	10/28/2016	200.7/200.8	2.2E-03	0.16	<0.002	3.1E-03	<0.006	**3.0**	4.5E-03	**0.32**	6.5E-03	<0.005	<0.0002	0.03	8.8E-03
	9/7/2016	200.7/200.8	2.4E-03	0.074	<0.002	<0.006	<0.006	**1.7**	3.9E-03	0.18	8.1E-03	<0.005	6.8E-05	0.027	6.3E-03
	6/9/2016	200.7/200.8	3.3E-03	0.83	<0.002	9.8E-03	6.6E-03	**13**	**0.022**	**1.1**	6.9E-03	<0.005	1.0E-04	**0.035**	0.039
	2/23/2016	200.7/200.8	1.7E-03	0.12	<0.002	0.0032	<0.006	**3.3**	4.1E-03	0.18	3.1E-03	<0.005	6.9E-05	0.029	0.013
	11/4/2015	200.7/200.8	<0.005	0.24	<0.002	<0.006	<0.006	**7.1**	9.7E-03	**0.54**	<0.02	<0.005	<0.0002	0.026	0.021
	8/20/2015	200.7/200.8	<0.005	0.29	<0.002	0.011	8.4E-03	**8.4**	9.4E-03	**0.55**	<0.01	<0.005	<0.0002	**0.032**	0.024
	6/10/2015	200.7/200.8	<0.005	0.28	<0.002	6.7E-03	<0.006	**7.7**	8.9E-03	**0.57**	<0.01	<0.005	<0.0002	**0.034**	0.024
	3/11/2015	200.7/200.8	<0.005	0.29	<0.002	7.2E-03	<0.006	**8.6**	0.011	**0.64**	7.9E-03	<0.005	<0.0002	**0.044**	0.021
	11/17/2014	200.7/200.8	<0.005	0.26	<0.002	0.007	<0.006	**8.0**	0.009	**0.72**	0.01	<0.005	<0.0002	**0.039**	0.029
MKTF-31	10/31/2016	200.7/200.8	2.6E-03	0.18	<0.002	<0.006	<0.006	**1.5**	3.1E-03	0.11	6.4E-03	<0.005	<0.0002	**0.041**	9.8E-03
	9/8/2016	200.7/200.8	2.9E-03	0.2	<0.002	<0.006	6.5E-03	**1.7**	4.3E-03	0.17	<0.05	<0.005	9.0E-05	**0.044**	0.013
	6/9/2016	200.7/200.8	2.2E-03	0.33	<0.002	5.1E-03	<0.006	**4.8**	8.4E-03	**0.34**	7.6E-03	<0.005	8.2E-05	**0.046**	0.017
	2/23/2016	200.7/200.8	<0.005	0.18	<0.002	2.3E-03	<0.006	**2.5**	3.6E-03	0.13	2.6E-03	<0.005	6.8E-05	**0.045**	0.011
	11/4/2015	200.7/200.8	<0.005	0.26	<0.002	<0.006	<0.006	**4.0**	6.4E-03	**0.25**	<0.02	<0.005	<0.0002	**0.041**	0.015
	8/21/2015	200.7/200.8	<0.01	0.19	<0.002	<0.006	<0.006	**3.1**	3.2E-03	0.13	4.6E-03	<0.005	<0.0002	**0.049**	<0.01
	6/10/2015	200.7/200.8	<0.005	0.17	<0.002	<0.006	<0.006	**2.9**	2.9E-03	0.11	<0.005	<0.005	<0.0002	**0.049**	0.011
	3/11/2015	200.7/200.8	<0.01	0.2	<0.002	<0.006	<0.006	**2.2**	<0.01	0.12	<0.01	<0.005	<0.0002	**0.056**	<0.01
	11/17/2014	200.7/200.8	<0.005	0.22	<0.002	<0.006	<0.006	**2.9**	4.1E-03	**0.24**	0.008	<0.005	<0.0002	**0.05**	0.017
MKTF-32	10/31/2016	200.7/200.8	4.4E-03	0.1	<0.002	2.8E-03	4.2E-03	**3.0**	3.3E-03	0.13	0.006	<0.005	<0.0002	**0.059**	0.012
	9/9/2016	200.7/200.8	4.7E-03	0.086	<0.002	<0.006	0.013	**1.8**	2.3E-03	0.12	6.9E-03	<0.005	<0.0002	**0.058**	0.016
	6/9/2016	200.7/200.8	4.2E-03	0.35	<0.002	7.2E-03	<0.006	**7.0**	1.0E-02	**0.4**	7.2E-03	<0.005	1.2E-04	**0.066**	0.036
	2/24/2016	200.7/200.8	3.4E-03	0.097	<0.002	<0.006	<0.006	**2.0**	2.8E-03	0.13	3.1E-03	<0.005	<0.0002	**0.062**	0.013
	11/5/2015	200.7/200.8	5.2E-03	0.16	<0.002	<0.006	<0.006	**3.2**	4.6E-03	**0.22**	8.3E-03	<0.005	<0.0002	**0.061**	0.015
	8/21/2015	200.7/200.8	3.7E-03	0.24	<0.002	7.2E-03	<0.006	**6.1**	7.2E-03	**0.3**	<0.01	<0.005	<0.0002	**0.073**	0.029
	6/9/2015	200.7/200.8	<0.005	0.24	<0.002	<0.006	0.018	**5.7**	6.3E-03	**0.31**	<0.005	<0.005	<0.0002	**0.066**	0.034
	3/12/2015	200.7/200.8	<0.01	0.085	<0.002	<0.006	<0.006	**1.6**	1.8E-03	0.12	0.01	<0.005	<0.0002	**0.067**	<0.01
	11/17/2014	200.7/200.8	<0.005	0.091	<0.002	<0.006	<0.006	**2.0**	2.7E-03	**0.23**	<0.01	<0.005	<0.0002	**0.067**	0.014
MKTF-33	11/1/2016	200.7/200.8	2.1E-03	0.11	<0.002	<0.006	<0.006	**3.1**	2.5E-03	**0.25**	2.4E-03	<0.005	<0.0002	**0.034**	0.006
	9/10/2016	200.7/200.8	<0.005	0.091	<0.002	<0.006	<0.006	**1.6**	2.7E-03	**0.31**	3.1E-03	<0.005	<0.0002	**0.036**	7.5E-03
	6/10/2016	200.7/200.8	1.9E-03	0.33	<0.002	7.5E-03	<0.006	**6.2**	9.8E-03	**0.96**	3.8E-03	<0.005	5.6E-05	**0.04**	0.028
	2/25/2016	200.7/200.8	1.2E-03	**1.3**	<0.002	0.015	0.022	**18.0**	6.7E-03	**2.7**	1.6E-03	<0.005	<0.0002	**0.04**	0.016
	11/9/2015	200.7/200.8	3.6E-03	**1.3**	<0.002	0.015	0.022	**18.0**	**3.6E-02**	**2.7**	<0.005	<0.005	<0.0002	**0.045**	0.065
	8/21/2015	200.7/200.8	2.0E-03	0.74	<0.002	0.015	0.01	**14.0**	**2.2E-02**	**1.6**	1.9E-03	<0.005	<0.0002	**0.049**	0.048
	6/9/2015	200.7/200.8	<0.005	0.26	<0.002	<0.006	<0.006	**4.1**	5.8E-03	**0.7**	<0.005	<0.005	<0.0002	**0.044**	0.02
	3/12/2015	200.7/200.8	<0.005	0.25	<0.002	6.2E-03	<0.006	**3.7**	5.9E-03	**0.68**	4.1E-03	<0.005	<0.0002	**0.045**	0.014
	11/17/2014	200.7/200.8	1.6E-03	0.18	<0.002	<0.006	<0.006	**3.3**	0.005	**0.92**	3.1E-03	<0.005	<0.0002	**0.043**	0.018

8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.002	0.03	NE
NMED Tap Water (JUL 2015)			5.13E-04	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.00626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	6.3E-04	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**													
MKTF-34	11/8/2016	200.7/200.8	2.6E-03	0.085	<0.002	<0.006	<0.006	0.7	8.7E-04	0.017	0.011	<0.005	2.4E-04	**0.038**	7.4E-03
	9/13/2016	200.7/200.8	4.4E-03	0.12	<0.002	<0.006	<0.006	0.6	8.0E-04	0.014	0.011	<0.005	1.5E-04	**0.034**	7.8E-03
	6/10/2016	200.7/200.8	4.7E-03	0.15	<0.002	<0.006	<0.006	**2.3**	2.6E-03	0.054	0.014	<0.005	<0.0002	**0.032**	0.024
	2/25/2016	200.7/200.8	0.003	0.15	<0.002	<0.006	<0.006	**1.6**	1.6E-03	0.044	6.7E-03	<0.005	<0.0002	**0.032**	0.023
	11/3/2015	200.7/200.8	<0.005	0.15	<0.002	<0.006	<0.006	1.0	1.2E-03	0.03	<0.02	<0.005	<0.0002	0.027	0.012
	8/18/2015	200.7/200.8	<0.005	0.17	<0.002	<0.006	<0.006	**2.4**	2.7E-03	0.074	8.6E-03	<0.005	<0.0002	**0.031**	0.03
	6/8/2015	200.7/200.8	<0.005	0.2	<0.002	<0.006	<0.006	**2.3**	<0.0025	0.066	<0.01	<0.005	<0.0002	0.028	0.024
	3/12/2015	200.7/200.8	<0.01	0.25	<0.002	<0.006	<0.006	**5.2**	4.5E-03	0.15	0.013	<0.005	<0.0002	0.028	0.059
	11/17/2014	200.7/200.8	<0.01	0.17	<0.002	<0.006	<0.006	**2.4**	1.4E-03	0.075	<0.02	<0.005	<0.0002	0.026	0.037
MKTF-35	11/3/2016	200.7/200.8	3.5E-03	**1.2**	<0.002	0.011	0.012	**22**	**0.019**	**5.5**	2.4E-03	<0.005	1.1E-04	3.9E-03	0.039
	9/13/2016	200.7/200.8	2.4E-03	**2.3**	<0.002	4.5E-03	4.4E-03	**8.6**	0.012	**3.8**	0.002	<0.005	9.1E-05	2.1E-03	0.017
	6/10/2016	200.7/200.8	9.3E-04	0.89	<0.002	2.3E-03	<0.006	**4.5**	4.9E-03	**3.3**	1.3E-03	<0.005	<0.0002	2.0E-03	7.4E-03
	2/26/2016	200.7/200.8	1.8E-03	**3.3**	<0.002	8.7E-03	<0.006	**9.1**	0.013	**4.1**	7.5E-04	<0.005	<0.0002	2.9E-03	0.026
	11/3/2015	200.7/200.8	2.3E-03	**2.3**	<0.002	<0.006	<0.006	**7.5**	0.011	**4.5**	<0.005	<0.005	<0.0002	2.9E-03	0.017
	8/18/2015	200.7/200.8	3.8E-03	**8.7**	<0.002	0.016	0.02	**17**	**0.034**	**6.5**	<0.005	<0.005	<0.0002	5.4E-03	0.051
	6/4/2015	200.7/200.8	<0.005	**5.0**	<0.002	0.018	0.013	**13**	**0.023**	**6.4**	<0.005	<0.005	<0.0002	4.4E-03	0.032
	3/17/2015	200.7/200.8	0.004	**8.2**	<0.002	0.013	0.025	**15**	**0.034**	**6.3**	<0.005	<0.005	<0.0002	5.3E-03	0.062
MKTF-36	11/8/2016	200.7/200.8	**0.018**	**6.6**	<0.002	<0.006	6.8E-03	**18**	0.01	**1.9**	4.5E-03	<0.005	<0.0002	8.5E-04	0.16
	8/18/2015	200.7/200.8	**0.016**	**5.7**	<0.002	<0.006	<0.006	**21**	**0.017**	**2.7**	<0.005	<0.005	<0.0002	1.1E-03	0.018
	6/4/2015	200.7/200.8	**0.017**	**6.8**	<0.002	9.6E-03	7.8E-03	**22**	**0.016**	**2.8**	<0.005	<0.005	<0.0002	<0.0025	0.023
	3/17/2015	200.7/200.8	**0.016**	**7**	<0.002	<0.006	<0.006	**22**	0.015	**2.8**	5.7E-03	<0.005	<0.0002	1.6E-03	0.028
MKTF-37	11/3/2016	200.7/200.8	3.4E-03	0.69	<0.002	<0.006	5.0E-03	**2.2**	4.6E-03	**0.55**	3.6E-03	<0.005	<0.0002	0.025	0.015
	8/19/2015	200.7/200.9	3.1E-03	0.24	<0.002	<0.006	9.2E-03	**5.7**	**0.024**	**1.7**	<0.005	<0.005	<0.0002	0.02	0.074
	6/4/2015	200.7/200.8	<0.005	0.23	<0.002	6.3E-03	9.7E-03	**4.8**	**0.036**	**2.6**	<0.005	<0.005	<0.0002	0.024	0.044
	3/17/2015	200.7/200.8	3.2E-03	0.23	<0.002	<0.006	0.012	**5.1**	**0.03**	**2.9**	3.6E-03	<0.005	<0.0002	0.026	0.14
MKTF-38	11/1/2016	200.7/200.8	2.2E-03	0.12	<0.002	<0.006	<0.006	**1.7**	3.3E-03	**3.3**	3.5E-03	<0.005	<0.0002	0.014	6.9E-03
	9/13/2016	200.7/200.8	2.5E-03	0.075	<0.002	<0.006	<0.006	0.61	0.001	**3.0**	4.7E-03	<0.005	6.5E-05	0.014	5.7E-03
	6/8/2016	200.7/200.8	2.2E-03	0.23	<0.002	<0.006	<0.006	**3.0**	3.5E-03	**3.8**	5.1E-03	<0.005	<0.0002	0.014	0.025
	2/29/2016	200.7/200.8	1.7E-03	0.14	<0.002	<0.006	<0.006	**2.3**	3.5E-03	**2.7**	2.4E-03	<0.005	<0.0002	0.014	0.014
	11/9/2015	200.7/200.8	0.005	0.93	<0.002	9.6E-03	9.3E-03	**11**	**0.02**	**4.2**	<0.1	<0.005	<0.0002	0.02	0.035
	8/24/2015	200.7/200.8	2.8E-03	0.49	<0.002	6.2E-03	7.7E-03	**7.2**	9.6E-03	**3.9**	3.8E-03	<0.005	<0.0002	0.019	0.025
	6/10/2015	200.7/200.8	<0.005	0.43	<0.002	0.006	<0.006	**6.4**	0.008	**3.7**	<0.005	<0.005	<0.0002	0.022	0.022
	3/16/2015	200.7/200.8	3.1E-03	0.34	<0.002	<0.006	<0.006	**3.5**	0.006	**3.1**	5.8E-03	<0.005	<0.0002	0.029	0.014
MKTF-39	11/1/2016	200.7/200.8	3.7E-03	**6.1**	<0.002	<0.006	<0.006	**8.7**	4.6E-03	**1.3**	8.4E-03	<0.005	<0.0002	<0.0025	9.3E-03
	9/13/2016	200.7/200.8	4.7E-03	**9.7**	<0.002	<0.006	<0.006	**12**	7.4E-03	**1.8**	0.012	<0.005	7.4E-05	4.8E-04	0.014
	6/8/2016	200.7/200.8	2.4E-03	**8.5**	<0.002	<0.006	<0.006	**12**	0.012	**1.8**	6.9E-03	<0.005	6.1E-05	9.2E-04	0.028
	3/3/2016	200.7/200.8	<0.01	**11**	<0.002	<0.006	<0.006	**13**	0.01	**1.9**	7.1E-03	<0.005	<0.0002	6.8E-04	0.011
	11/9/2015	200.7/200.8	5.6E-03	**33**	<0.002	8.8E-03	0.037	**45**	**0.049**	**5.2**	<0.05	<0.005	2.8E-04	3.8E-03	0.076
	8/23/2015	200.7/200.8	<0.005	**49**	<0.002	<0.006	0.019	**57**	**0.034**	**6.8**	<0.01	<0.005	2.7E-04	3.5E-03	0.062
	6/10/2015	200.7/200.8	<0.005	**58**	<0.002	<0.006	<0.06	**59**	**0.031**	**8**	<0.005	<0.005	<0.0002	2.9E-03	0.042
	3/16/2015	200.7/200.8	<0.01	**35**	<0.01	<0.03	<0.03	**50**	**0.034**	**8.6**	<0.01	<0.025	2.1E-04	0.012	0.059
MKTF-40	10/31/2016	200.7/200.8	4.1E-03	0.21	<0.002	2.8E-03	<0.006	**5.3**	8.4E-03	**0.26**	8.2E-03	<0.005	5.5E-05	**0.06**	0.019
	9/8/2016	200.7/200.8	4.5E-03	0.31	<0.002	5.3E-03	5.7E-03	**10**	**0.029**	**0.49**	0.013	<0.005	1.2E-04	**0.059**	0.043
	6/9/2016	200.7/200.8	3.1E-03	0.32	<0.002	<0.006	<0.006	**5.5**	8.7E-03	**0.31**	9.5E-03	<0.005	9.6E-05	**0.058**	0.022
	2/23/2016	200.7/200.8	<0.005	0.14	<0.002	<0.006	<0.006	**2.0**	2.6E-03	0.17	3.1E-03	<0.005	6.8E-05	**0.064**	9.9E-03
	11/4/2015	200.7/200.8	<0.005	0.26	<0.002	<0.006	<0.006	**5.5**	6.6E-03	**0.32**	<0.02	<0.005	<0.0002	**0.06**	0.024
	8/21/2015	200.7/200.8	<0.01	0.19	<0.002	<0.006	<0.006	**3.4**	<0.005	**0.24**	<0.01	<0.005	<0.0002	**0.081**	0.016
	6/10/2015	200.7/200.8	<0.005	0.24	<0.002	<0.006	<0.006	**4.0**	5.2E-03	**0.21**	<0.01	<0.005	<0.0002	**0.075**	0.021
	3/11/2015	200.7/200.8	<0.01	0.28	<0.002	<0.006	<0.006	**5.6**	<0.01	**0.34**	0.015	<0.005	<0.0002	**0.085**	0.023

8.17.2 MKTF WELLS

Total Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	1.3	NE	**0.015**	NE	0.05	NE	0.002	0.03	NE
NMED Tap Water (JUL 2015)			5.13E-04	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0987	0.0812	0.00626	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.1	0.094	6.3E-04	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**													
MKTF-41	10/31/2016	200.7/200.8	6.4E-03	0.094	<0.002	<0.006	<0.006	**1.8**	2.9E-03	0.088	0.045	<0.005	<0.0002	0.017	0.011
	9/9/2016	200.7/200.8	6.1E-03	0.12	<0.002	0.003	3.1E-03	**2.5**	3.7E-03	0.12	0.045	<0.005	<0.0002	0.015	0.018
	6/9/2016	200.7/200.8	6.7E-03	0.25	<0.002	4.3E-03	<0.006	**7.3**	0.01	**0.3**	0.046	<0.005	9.4E-05	0.021	0.029
	2/24/2016	200.7/200.8	4.9E-03	0.12	<0.002	2.7E-03	<0.006	**2.4**	3.5E-03	0.12	0.044	<0.005	<0.0002	0.022	0.013
	11/5/2015	200.7/200.8	<0.01	0.17	<0.002	<0.006	<0.006	**4.3**	5.6E-03	0.17	**0.052**	<0.005	<0.0002	0.025	0.019
	8/21/2015	200.7/200.8	<0.01	0.27	<0.002	6.3E-03	<0.006	**9**	0.012	**0.35**	0.044	<0.005	<0.0002	0.029	0.034
	6/9/2015	200.7/200.8	<0.005	0.16	<0.006	<0.006	<0.006	**4.1**	0.006	0.15	0.047	<0.005	<0.0002	**0.031**	0.016
	3/12/2015	200.7/200.8	<0.01	0.19	<0.002	7.5E-03	<0.006	**8.4**	6.1E-03	**0.22**	**0.059**	<0.005	<0.0002	**0.034**	0.024
MKTF-42	10/31/2016	200.7/200.8	4.7E-03	0.11	<0.002	<0.006	5.2E-03	**1.3**	2.8E-03	**0.31**	9.5E-03	<0.005	<0.0002	0.014	7.8E-03
	9/9/2016	200.7/200.8	4.2E-03	0.11	<0.002	<0.006	5.4E-03	0.8	1.8E-03	**0.32**	0.011	<0.005	<0.0002	0.017	7.4E-03
	6/9/2016	200.7/200.8	3.8E-03	0.12	<0.002	<0.006	<0.006	**1.6**	3.2E-03	**0.43**	8.6E-03	<0.005	9.7E-05	0.021	0.013
	2/24/2016	200.7/200.8	2.6E-03	0.092	<0.002	<0.006	0.01	0.89	1.5E-03	**0.41**	3.5E-03	<0.005	<0.0002	0.023	6.1E-03
	11/5/2015	200.7/200.8	<0.01	0.076	<0.002	<0.006	<0.006	0.49	7.7E-04	**0.39**	0.011	<0.005	<0.0002	0.027	<0.01
	8/21/2015	200.7/200.8	<0.005	0.097	<0.002	<0.006	<0.006	0.75	1.2E-03	**0.36**	4.5E-03	<0.005	<0.0002	**0.032**	0.014
	6/9/2015	200.7/200.8	<0.005	0.13	<0.002	<0.006	0.011	**1.6**	<0.0025	**0.6**	<0.005	<0.005	<0.0002	**0.036**	0.016
	3/11/2015	200.7/200.8	3.5E-03	0.16	<0.002	<0.006	7.1E-03	**2.5**	3.4E-03	**0.58**	7.5E-03	<0.005	<0.0002	**0.039**	0.012
MKTF-43	10/31/2016	200.7/200.8	**0.03**	0.18	<0.002	<0.006	<0.006	**2.2**	<0.025	**18**	**0.084**	<0.005	<0.0002	**0.19**	0.032
	9/9/2016	200.7/200.8	**0.022**	0.17	<0.002	<0.006	<0.006	**3.6**	4.1E-03	**21**	**0.065**	<0.005	<0.0002	**0.21**	0.032
	6/9/2016	200.7/200.8	<0.1	0.24	<0.002	<0.006	<0.006	**7.9**	9.8E-03	**19**	<0.1	<0.005	1.3E-04	**0.26**	0.027
	2/24/2016	200.7/200.8	<0.05	0.13	<0.01	<0.03	<0.03	**2.4**	3.8E-03	**12**	0.03	<0.005	<0.0002	**0.22**	0.022
	11/5/2015	200.7/200.8	<0.05	0.19	<0.002	<0.006	<0.006	**4.8**	<0.01	**16**	<0.5	<0.005	<0.0002	**0.25**	0.021
	8/21/2015	200./200.8	<0.02	0.31	<0.01	<0.03	<0.03	**6.6**	<0.01	**23**	**0.06**	<0.025	<0.0002	**0.28**	0.056
	6/10/2015	200.7/200.8	<0.1	0.2	<0.002	<0.006	<0.006	**4.8**	<0.01	**14**	<0.1	<0.005	<0.0002	**0.25**	0.024
	3/11/2015	200.7/200.8	<0.05	0.24	<0.01	0.031	<0.03	**3.2**	<0.02	**3.7**	**0.071**	<0.005	<0.0002	**0.14**	<0.05
MKTF-44	11/1/2016	200.7/200.8	**0.011**	0.2	<0.002	0.022	0.015	**18**	0.024	**0.38**	0.013	<0005	8.3E-05	**0.18**	0.074
	9/9/2016	200.7/200.8	8.6E-03	0.26	<0.002	0.031	0.019	**33**	0.031	**0.53**	0.014	<0.005	1.0E-04	**0.17**	0.089
	6/9/2016	200.7/200.8	4.5E-03	0.25	<0.002	0.016	<0.006	**7.1**	9.2E-03	**0.28**	0.013	<0.005	8.9E-05	**0.17**	0.03
	2/24/2016	200.7/200.8	6.1E-03	0.1	<0.002	9.8E-03	<0.006	**2.9**	3.7E-03	0.056	0.016	<0.005	<0.0002	**0.18**	0.013
	11/9/2015	200.7/200.8	7.8E-03	0.15	<0.002	0.012	0.008	**9.9**	0.013	**0.29**	<0.01	<0005	<0.0002	**0.2**	0.037
	8/17/2015	200.7/200.8	<0.01	0.43	<0.002	0.031	0.016	**26**	**0.034**	**0.92**	0.015	<0.005	<0.0002	**0.24**	0.1
	6/10/2015	200.7/200.8	<0.01	0.18	<0.002	0.017	<0.006	**11**	0.014	**0.26**	0.014	<0.005	<0.0002	**0.21**	0.052
	3/12/2015	200.7/200.8	<0.01	0.22	<0.002	0.023	7.9E-03	**16**	**0.016**	**0.34**	0.015	<0.005	<0.0002	**0.22**	0.056

DEFINITIONS

NE = Not established

NA = Not analyzed

Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.

a) Human Health Standards; b) Other Standards for Domestic Water

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

STANDARDS			PARAMETERS										
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	NE	NE	**0.015**	NE	NE	0.05	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**												
MKTF-1	2/24/2016	200.7/200.8	1.8E-03	**3.2**	<0.002	<0.006	<0.006	**5.2**	<0.0025	**2.1**	<0.005	4.6E-03	1.7E-04	0.077
	11/4/2015	200.7/200.8	<0.005	**2.7**	<0.002	<0.006	<0.006	**4.7**	<0.0005	**1.9**	<0.005	7.2E-03	<0.0005	<0.01
	8/21/2015	200.7/200.8	<0.005	**2.4**	<0.002	<0.006	<0.006	**4.0**	<0.0025	**1.9**	<0.005	<0.005	<0.025	<0.01
	6/9/2015	200.7/200.8	<0.005	**2.3**	<0.002	<0.006	<0.006	**4.7**	<0.005	**2.1**	<0.005	5.6E-03	<0.005	<0.01
	3/11/2015	200.7/200.8	<0.01	**2.0**	<0.002	<0.006	<0.006	**4.4**	<0.001	**1.9**	<0.005	<0.02	<0.001	<0.01
	6/6/2014	200.7/200.8	<0.005	**1.4**	<0.002	<0.006	<0.006	**4.7**	<0.005	**1.7**	<0.005	0.013	<0.01	0.028
MKTF-2	10/28/2016	200.7/200.8	3.0E-03	0.19	<0.002	<0.006	<0.006	0.036	5.9E-04	**0.47**	<0.005	6.4E-03	0.024	<0.01
	9/7/2016	200.7/200.8	2.9E-03	0.16	<0.002	<0.006	<0.006	0.045	1.5E-03	**0.39**	<0.005	6.1E-03	**0.035**	3.5E-03
	6/10/2016	200.7/200.8	2.8E-03	0.13	<0.002	<0.006	<0.006	0.081	4.9E-04	**0.33**	<0.005	6.1E-03	**0.033**	3.3E-03
	2/24/2016	200.7/200.8	2.7E-03	0.095	<0.002	<0.006	<0.006	0.55	0.002	**0.39**	<0.005	3.3E-03	**0.059**	0.074
	11/4/2015	200.7/200.8	4.9E-03	0.14	<0.002	<0.006	<0.006	0.25	6.5E-04	**0.44**	<0.005	<0.005	0.03	<0.01
	8/21/2015	200.7/200.8	4.3E-03	0.13	<0.002	<0.006	<0.006	0.76	<0.0005	**0.6**	<0.005	3.2E-03	**0.048**	<0.01
	6/9/2015	200.7/200.8	<0.005	0.12	<0.002	<0.006	<0.006	0.21	<0.005	**0.56**	<0.005	<0.005	**0.032**	<0.01
	3/11/2015	200.7/200.8	4.7E-03	0.13	<0.002	<0.006	<0.006	0.11	<0.001	**0.56**	<0.005	8.4E-03	**0.049**	<0.01
	11/14/2014	200.7/200.8	<0.01	0.13	<0.002	<0.006	<0.006	**2.2**	<0.01	**0.51**	<0.005	<0.01	**0.059**	0.027
	9/18/2014	200.7/200.8	<0.005	0.15	<0.002	<0.006	<0.006	0.029	<0.001	**0.59**	<0.005	<0.005	0.012	0.041
	6/6/2014	200.7/200.8	<0.005	0.13	<0.002	<0.006	<0.006	0.34	<0.005	**0.56**	<0.005	0.012	**0.056**	0.01
MKTF-4	11/2/2016	200.7/200.8	0.01	**2.7**	<0.002	<0.006	<0.006	**1.7**	<0.0005	**1.4**	<0.005	1.1E-02	3.1E-03	5.7E-03
	9/11/2016	200.7/200.8	**0.011**	**2.6**	<0.002	<0.006	<0.006	**1.2**	3.3E-04	**1.4**	<0.005	1.4E-02	3.7E-03	0.003
	6/9/2016	200.7/200.8	0.008	**2.4**	<0.002	<0.006	<0.006	**2**	<0.0005	**1.4**	<0.005	8.5E-03	4.8E-03	<0.01
	2/29/2016	200.7/200.8	8.5E-03	**2.8**	<0.002	<0.006	<0.006	**5.6**	4.4E-05	**1.5**	<0.005	6.1E-03	5.3E-03	0.022
	11/3/2015	200.7/200.8	**0.012**	**3.1**	<0.002	<0.006	<0.006	**13**	<0.0005	**1.5**	<0.005	<0.02	2.3E-03	<0.01
	8/18/2015	200.7/200.8	<0.01	**2.5**	<0.002	<0.006	<0.006	**8.7**	<0.0025	**1.6**	<0.005	<0.01	3.4E-03	<0.01
	6/4/2015	200.7/200.8	<0.01	**2.2**	<0.002	<0.006	<0.006	**8.6**	<0.01	**1.6**	<0.005	<0.01	<0.01	0.023
	3/16/2015	200.7/200.8	9.7E-03	**1.1**	<0.002	<0.006	<0.006	**2.0**	<0.005	**1.9**	<0.005	<0.05	0.013	0.021
	11/13/2014	200.7/200.8	6.0E-03	**1.3**	<0.002	<0.006	<0.006	**4.7**	<0.005	**1.8**	<0.005	<0.005	0.013	0.01
	9/15/2014	200.7/200.8	<0.01	0.78	<0.002	<0.006	<0.006	**3.6**	1.3E-03	**1.7**	<0.005	<0.01	0.018	<0.01
	6/4/2014	200.7/200.8	7.8E-03	**1.9**	<0.002	<0.006	<0.006	**2.5**	<0.005	**1.4**	<0.005	0.022	<0.01	<0.01
MKTF-9	11/2/2016	200.7/200.8	2.8E-03	0.4	<0.002	<0.006	<0.006	0.92	<0.0005	**3.2**	<0.005	5.5E-03	6.5E-03	0.27
	9/11/2016	200.7/200.8	3.2E-03	0.52	<0.002	<0.006	<0.006	0.81	2.3E-04	**3.7**	<0.005	7.5E-03	5.0E-03	<0.01
	6/9/2016	200.7/200.8	2.5E-03	0.43	<0.002	<0.006	<0.006	**1.1**	<0.0005	**3.5**	<0.005	5.3E-03	6.8E-03	<0.01
	2/29/2016	200.7/200.8	2.2E-03	0.55	<0.002	<0.006	<0.006	**2.8**	2.1E-04	**3.9**	<0.005	3.1E-03	4.7E-03	8.7E-03
	11/3/2015	200.7/200.8	<0.005	0.5	<0.002	<0.006	<0.006	**3.2**	<0.0005	**4.2**	<0.005	<0.01	3.6E-03	<0.01
	8/18/2015	200.7/200.8	<0.01	0.45	<0.002	<0.006	<0.006	**2.4**	<0.0025	**4.0**	<0.005	<0.01	3.9E-03	<0.01
	6/4/2015	200.7/200.8	<0.01	0.31	<0.002	<0.006	<0.006	**1.9**	<0.01	**3.2**	<0.005	<0.01	<0.01	0.012
	3/16/2015	200.7/200.8	<0.005	0.19	<0.002	<0.006	<0.006	**1.4**	<0.001	**2.3**	<0.005	<0.01	0.012	0.039
	11/14/2014	200.7/200.8	<0.01	0.34	<0.002	<0.006	<0.006	**2.4**	<0.01	**2.8**	<0.005	<0.01	<0.01	0.017
	9/18/2014	200.7/200.8	<0.01	0.32	<0.002	<0.006	<0.006	**2.2**	<0.001	**2.6**	<0.005	<0.01	0.012	<0.01
	6/5/2014	200.7/200.8	<0.005	0.44	<0.002	<0.006	<0.006	**3.4**	<0.005	**3.6**	<0.005	0.014	<0.01	<0.01
MKTF-10	11/2/2016	200.7/200.8	8.0E-03	**5.8**	<0.002	<0.006	<0.006	**9.4**	<0.005	**5.2**	<0.005	4.6E-03	6.5E-04	<0.01
	9/11/2016	200.7/200.8	8.2E-03	**11**	<0.002	<0.006	<0.006	**26**	8.6E-04	**12**	<0.005	6.6E-03	9.1E-04	2.9E-03
	6/9/2016	200.7/200.8	7.7E-03	**13**	<0.002	<0.006	<0.006	**41**	2.2E-04	**16**	<0.005	4.1E-03	4.9E-04	0.041
	2/29/2016	200.7/200.8	8.3E-03	**14**	<0.002	<0.006	<0.006	**54**	<0.0025	**20**	<0.005	4.2E-03	1.5E-03	0.017
	11/3/2015	200.7/200.8	5.6E-03	**13**	<0.002	<0.006	<0.006	**50**	<0.005	**18**	<0.005	6.7E-03	<0.0005	<0.01
	8/18/2015	200.7/200.8	**0.013**	**15**	<0.002	0.013	<0.006	**64**	<0.0025	**22**	<0.005	<0.01	<0.0025	<0.01

8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	NE	NE	**0.015**	NE	NE	0.05	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**												
MKTF-10	6/4/2015	200.7/200.8	<0.01	**12**	<0.002	<0.006	<0.006	**53**	<0.01	**18**	<0.005	<0.01	<0.01	0.034
	3/16/2015	200.7/200.8	<0.005	**12**	<0.002	<0.006	<0.006	**49**	<0.001	**17**	<0.005	6.8E-03	<0.001	<0.01
	11/14/2014	200.7/200.8	<0.01	**17**	<0.002	<0.006	<0.006	**67**	<0.01	**24**	<0.005	<0.01	<0.01	0.018
	9/18/2014	200.7/200.8	<0.005	**11**	<0.002	<0.006	<0.006	**33**	<0.001	**14**	<0.005	<0.005	<0.001	<0.01
	6/6/2014	200.7/200.8	<0.005	**8.1**	<0.002	<0.006	<0.006	**18**	<0.005	**9.2**	<0.005	0.011	<0.01	<0.01
MKTF-11	11/2/2016	200.7/200.8	**0.013**	**2.6**	<0.002	<0.006	<0.006	**5.4**	<0.0005	**3.6**	<0.005	4.6E-03	5.9E-03	0.004
	9/12/2016	200.7/200.8	**0.014**	**2.5**	<0.002	<0.006	<0.06	**4.6**	<0.0005	**3.8**	<0.005	6.2E-03	4.4E-03	<0.01
	6/9/2016	200.7/200.8	**0.014**	**2.5**	<0.002	<0.006	<0.006	**4.3**	<0.0005	**3.5**	<0.005	4.2E-03	8.4E-03	<0.01
	2/29/2016	200.7/200.8	**0.015**	**3.6**	<0.002	<0.006	<0.006	**8.0**	3.1E-04	**5.7**	<0.005	4.6E-03	5.0E-03	0.011
	11/3/2015	200.7/200.8	8.40E-03	**4.0**	<0.002	<0.006	<0.006	**12**	<0.0005	**3.6**	<0.005	6.4E-03	<0.0005	<0.01
	8/18/2015	200.7/200.8	<0.01	**2.0**	<0.002	<0.006	<0.006	**4.0**	<0.0025	**4.0**	<0.005	<0.01	3.4E-03	<0.01
	6/4/2015	200.7/200.8	<0.01	**2.7**	<0.002	<0.006	<0.006	**9.9**	<0.01	**3.0**	<0.005	<0.01	<0.01	0.018
	3/16/2015	200.7/200.8	8.7E-03	**2.0**	<0.002	<0.006	<0.006	**4.8**	<0.001	**2.9**	<0.005	0.008	1.3E-03	<0.01
	11/13/2014	200.7/200.8	<0.01	**1.5**	<0.002	<0.006	<0.006	**3.4**	<0.001	**3.2**	<0.005	5.1E-03	3.3E-03	0.019
	9/15/2014	200.7/200.8	8.6E-03	**1.1**	<0.002	<0.006	<0.006	**2.7**	<0.001	**2.4**	<0.005	<0.005	4.0E-03	<0.01
	6/5/2014	200.7/200.8	6.4E-03	**1.8**	<0.002	6.0E-03	<0.006	**11**	**0.022**	**3.6**	<0.005	0.01	<0.01	0.036
MKTF-15	11/2/2016	200.7/200.8	2.7E-03	**20**	<0.002	<0.006	<0.006	**26**	<0.0025	**6.5**	<0.005	6.9E-03	<0.0025	0.014
	9/11/2016	200.7/200.8	2.7E-03	**23**	<0.002	<0.006	<0.006	**32**	4.8E-04	**7.6**	<0.005	9.1E-03	2.3E-04	0.04
	9/17/2014	200.7/200.8	<0.01	**27**	<0.002	<0.006	<0.006	**13**	<0.01	**9.0**	<0.005	<0.01	<0.01	<0.01
	6/5/2014	200.7/200.8	<0.005	**25**	<0.002	<0.006	<0.006	**11**	<0.005	**7.5**	<0.005	<0.01	<0.01	0.011
MKTF-16	11/3/2016	200.7/200.8	**0.015**	0.69	<0.002	<0.006	<0.006	**2.2**	4.2E-04	**0.87**	<0.005	0.013	5.3E-03	4.1E-03
	9/12/2016	200.7/200.8	**0.014**	0.67	<0.002	<0.006	<0.006	**2.4**	2.7E-04	**0.94**	<0.005	0.013	0.004	<0.01
	2/29/2016	200.7/200.8	0.01	**1.3**	<0.002	<0.006	<0.006	**5.8**	7.9E-04	**1.7**	<0.005	9.9E-03	2.5E-04	0.018
	11/3/2015	200.7/200.8	**0.016**	**3.1**	<0.002	<0.006	<0.006	**13**	<0.0005	**3.9**	<0.005	0.019	<0.0005	<0.01
	8/23/2015	200.7/200.8	0.01	***2.7***	<0.002	<0.006	<0.006	**11**	<0.0025	**4.1**	<0.005	9.7E-03	<0.0025	<0.01
	6/8/2015	200.7/200.8	8.7E-03	**2.3**	<0.002	<0.006	<0.006	**11**	<0.005	**3.6**	<0.005	8.1E-03	<0.005	0.017
	3/16/2015	200.7/200.8	<0.01	0.94	<0.002	<0.006	<0.006	**5.6**	<0.001	**1.2**	<0.005	<0.02	<0.001	0.024
	11/18/2014	200.7/200.8	**0.011**	0.88	<0.002	<0.006	<0.006	**7.2**	<0.001	**1.1**	<0.005	<0.01	<0.001	0.019
	9/17/2014	200.7/200.8	**0.011**	0.81	<0.002	<0.006	<0.006	**7.3**	<0.001	**1.1**	<0.005	<0.01	<0.001	0.017
	6/5/2014	200.7/200.8	**0.013**	0.81	<0.002	<0.006	<0.006	**7.9**	<0.005	**1.3**	<0.005	0.017	<0.01	0.022
MKTF-17	11/8/2016	200.7/200.8	4.6E-03	0.52	<0.002	<0.006	<0.006	0.21	<0.0005	**2.7**	<0.005	3.E-03	6.9E-03	<0.01
	9/13/2016	200.7/200.8	6.2E-03	0.65	<0.002	<0.006	<0.006	0.23	<0.005	**3.0**	<0.005	5.E-03	0.008	<0.01
	2/26/2016	200.7/200.8	0.003	0.095	<0.002	<0.006	<0.006	0.093	1.2E-04	**2.8**	<0.005	2.E-03	0.018	0.02
	11/3/2015	200.7/200.8	0.01	0.19	<0.002	<0.006	<0.006	0.65	<0.0005	**3.5**	<0.005	5.E-03	0.013	<0.01
	8/18/2015	200.7/200.8	<0.01	0.097	<0.02	<0.006	<0.006	0.49	<0.0025	**2.8**	<0.005	<0.01	0.017	<0.01
	6/8/2015	200.7/200.8	<0.005	0.11	<0.002	<0.006	<0.006	0.14	<0.002	**3.1**	<0.005	<0.005	0.021	<0.01
	3/12/2015	200.7/200.8	6.2E-03	0.13	<0.002	<0.006	<0.006	0.57	<0.001	**3.0**	<0.005	5.8E-03	0.021	<0.01
	11/18/2014	200.7/200.8	4.7E-03	0.14	<0.002	<0.006	<0.006	0.08	<0.001	**2.8**	<0.005	<0.01	0.022	0.027
	9/18/2014	200.7/200.8	5.3E-03	0.16	<0.002	<0.006	<0.006	0.27	<0.001	**3.1**	<0.005	<0.005	0.022	0.018
	6/16/2014	200.7/200.8	5.4E-03	0.24	<0.002	<0.006	<0.006	0.94	<0.005	**3.3**	<0.005	<0.005	0.022	0.14
MKTF-18	11/8/2016	200.7/200.8	2.5E-03	**1.7**	<0.002	<0.006	<0.006	0.81	<0.0005	**1.9**	<0.005	5.3E-03	1.0E-03	<0.01
	9/13/2016	200.7/200.8	2.6E-03	**1.8**	<0.002	<0.006	<0.006	0.89	<0.0005	**2.0**	<0.005	7.2E-03	1.2E-03	<0.01
	6/10/2016	200.7/200.8	2.3E-03	**1.9**	<0.002	<0.006	<0.006	**1.5**	<0.0005	**1.9**	<0.005	5.4E-03	1.1E-03	<0.01
	2/26/2016	200.7/200.8	2.0E-03	**2.1**	<0.002	<0.006	<0.006	**2.1**	3.9E-04	**1.9**	<0.005	1.8E-03	1.2E-03	0.011
	11/3/2015	200.7/200.8	3.1E-03	**2.5**	<0.002	<0.006	<0.006	**4.8**	5.3E-03	**1.9**	<0.005	<0.01	1.2E-03	<0.01
	8/18/2015	200.7/200.8	<0.01	**2.0**	<0.002	<0.006	<0.006	**1.2**	<0.0025	**1.7**	<0.005	<0.01	<0.0025	<0.01
	6/8/2015	200.7/200.8	<0.005	**2.5**	<0.002	<0.006	<0.006	**3.9**	<0.002	**1.8**	<0.005	<0.005	<0.002	<0.01

8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	NE	NE	**0.015**	NE	NE	0.05	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**												
MKTF-18	3/17/2015	200.7/200.8	<0.01	**2.5**	<0.002	<0.006	<0.006	**3.8**	<0.001	**1.8**	<0.005	<0.01	<0.001	<0.01
	11/18/2014	200.7/200.8	2.0E-03	**2.4**	<0.002	<0.006	<0.006	**3.4**	<0.001	**1.7**	<0.005	<0.01	<0.001	0.025
	9/18/2014	200.7/200.8	<0.005	**2.3**	<0.002	<0.006	<0.006	0.3	<0.001	**1.7**	<0.005	<0.005	1.2E-03	0.012
	6/6/2014	200.7/200.8	<0.005	**2.4**	<0.002	<0.006	<0.006	**4.5**	<0.005	**2.0**	<0.005	8.6E-03	<0.01	<0.01
MKTF-19	11/8/2016	200.7/200.8	**0.011**	**1.6**	<0.002	<0.006	<0.006	**8.5**	2.3E-03	**2.2**	<0.005	7.5E-03	1.6E-03	9.1E-03
	9/13/2016	200.7/200.8	**0.017**	**1.7**	<0.002	<0.006	<0.006	**10**	2.3E-03	**2.4**	<0.005	8.2E-03	6.4E-04	4.4E-03
	6/10/2016	200.7/200.8	**0.015**	**1.6**	<0.002	<0.006	<0.006	**9.7**	2.2E-03	**2.7**	<0.005	0.013	4.5E-04	6.2E-03
	2/25/2016	200.7/200.8	**0.015**	**1.7**	<0.002	<0.006	<0.006	**11**	3.4E-03	**3.1**	<0.005	3.8E-03	6.0E-04	9.7E-03
	11/3/2015	200.7/200.8	**0.018**	**1.7**	<0.002	<0.006	<0.006	**13**	1.6E-03	**3.4**	<0.005	<0.05	<0.0005	<0.01
	8/18/2015	200.7/200.8	**0.020**	**1.7**	<0.002	<0.006	<0.006	**14**	3.2E-03	**3.2**	<0.005	<0.01	<0.0025	0.02
	6/8/2015	200.7/200.8	**0.019**	**1.7**	<0.002	<0.006	<0.006	**12**	<0.002	**3.3**	<0.005	<0.01	<0.002	<0.01
	3/12/2015	200.7/200.8	**0.021**	**1.6**	<0.002	<0.006	<0.006	**9.5**	1.7E-03	**3.1**	<0.005	<0.02	<0.001	0.012
	11/18/2014	200.7/200.8	**0.022**	**1.6**	<0.002	<0.006	<0.006	**11**	1.9E-03	**3.0**	<0.005	<0.01	<0.001	0.018
MKTF-20	11/3/2016	200.7/200.8	**0.029**	**8.6**	<0.002	<0.006	7.3E-03	**20**	0.009	**8.0**	<0.005	0.013	5.2E-03	0.014
	9/12/2016	200.7/200.8	**0.027**	**4.7**	<0.002	<0.006	4.6E-03	**14**	0.004	**3.8**	<0.005	7.9E-03	3.3E-03	0.012
	6/9/2016	200.7/200.8	**0.034**	**3.3**	<0.002	<0.006	0.022	**12**	0.012	**3.9**	<0.005	7.8E-03	0.018	0.016
	6/8/2015	200.7/200.8	**0.012**	**1.5**	<0.002	<0.006	<0.006	**3.6**	<0.005	**2.0**	<0.005	<0.005	<0.005	0.045
	3/16/2015	200.7/200.8	**0.022**	**2.0**	<0.002	<0.006	<0.006	**8.6**	1.3E-03	**3.1**	<0.005	<0.01	8.8E-03	<0.01
MKTF-21	11/3/2016	200.7/200.8	**0.019**	**4.3**	<0.002	<0.006	<0.006	**30**	9.8E-04	**5.0**	<0.005	0.012	0.002	0.017
	9/12/2016	200.7/200.8	**0.02**	**2.5**	<0.002	<0.006	<0.006	**22**	1.8E-03	**3.7**	<0.005	9.4E-03	7.1E-04	0.023
	6/10/2015	200.7/200.8	Not enough water to collect samples											
	3/16/2015	200.7/200.8	**0.011**	**1.9**	<0.002	<0.006	<0.006	**18**	0.012	**3.1**	<0.005	<0.01	1.2E-03	0.074
MKTF-22	11/1/2016	200.7/200.8	2.1E-03	**1.2**	<0.002	<0.006	<0.006	**3**	<0.0005	**2.5**	<0.005	3.8E-03	2.4E-03	9.9E-03
	9/10/2016	200.7/200.8	2.4E-03	**1.1**	<0.002	<0.006	<0.006	**2.7**	1.4E-03	**2.3**	<0.005	5.3E-03	2.8E-03	<0.01
	6/10/2016	200.7/200.8	2.5E-03	**1.1**	<0.002	<0.006	<0.006	**2.9**	<0.0005	**2.2**	<0.005	4.6E-03	2.8E-03	<0.01
	2/25/2016	200.7/200.8	1.4E-03	**1.3**	<0.002	<0.006	<0.006	**6.3**	5.3E-04	**2.3**	<0.005	1.5E-03	1.9E-03	0.011
	11/9/2015	200.7/200.8	3.3E-03	0.92	<0.002	<0.006	<0.006	**5.9**	8.3E-03	**2.4**	<0.005	<0.005	4.8E-03	<0.01
	8/20/2015	200.7/200.8	<0.005	0.37	<0.002	<0.006	<0.006	**8.5**	<0.0025	**1.9**	<0.005	<0.005	0.013	<0.01
	6/9/2015	200.7/200.8	<0.005	**1.1**	<0.002	<0.006	<0.006	**6.8**	<0.002	**2.3**	<0.005	<0.005	3.8E-03	0.029
	3/12/2015	200.7/200.8	3.1E-03	**1.3**	<0.002	<0.006	<0.006	**7.5**	1.6E-03	**2.3**	<0.005	6.7E-03	3.2E-03	<0.01
	11/17/2014	200.7/200.8	<0.005	0.78	<0.002	<0.006	<0.006	**6.8**	0.001	**2.2**	<0.005	<0.005	5.3E-03	0.024
MKTF-23	6/10/2016	200.7/200.8	0.010	0.66	<0.002	<0.006	<0.006	**2.6**	6.5E-04	**1.8**	<0.005	0.009	2.2E-03	<0.01
	2/25/2016	200.7/200.8	0.010	0.58	<0.002	<0.006	<0.006	**3.8**	3.8E-04	**1.8**	<0.005	4.2E-03	1.8E-03	8.3E-03
	11/9/2015	200.7/200.8	**0.015**	0.71	<0.002	<0.006	<0.006	0.99	<0.0025	**1.4**	<0.005	<0.05	0.024	<0.01
	8/21/2015	200.7/200.8	**0.011**	0.7	<0.002	<0.006	<0.006	0.34	<0.0005	**1.3**	<0.005	<0.01	0.014	<0.01
	6/9/2015	200.7/200.8	0.010	0.75	<0.002	<0.006	<0.006	**2.4**	<0.002	**1.5**	<0.005	<0.005	7.2E-03	<0.01
	3/12/2015	200.7/200.8	**0.013**	0.61	<0.002	<0.006	<0.006	**4.4**	<0.001	**1.9**	<0.005	<0.02	4.5E-03	<0.01
	11/17/2014	200.7/200.8	0.010	0.57	<0.002	<0.006	<0.006	**3.1**	<0.001	**1.7**	<0.005	<0.01	0.013	0.018
MKTF-24	10/28/2016	200.7/200.8	3.3E-03	0.23	<0.002	<0.006	<0.006	0.069	1.2E-03	**2.0**	<0.005	6.4E-03	0.017	<0.01
	9/7/2016	200.7/200.8	3.5E-03	0.24	<0.002	<0.006	<0.006	0.19	1.5E-03	**1.9**	<0.005	6.3E-03	0.02	7.1E-03
	6/8/2016	200.7/200.8	4.5E-03	0.27	<0.002	<0.006	<0.006	0.65	1.9E-03	**1.9**	<0.005	8.4E-03	0.027	<0.01
	2/22/2016	200.7/200.8	2.6E-03	0.25	<0.002	<0.006	<0.006	0.21	1.2E-03	**1.9**	<0.005	3.1E-03	0.023	0.012
	11/4/2015	200.7/200.8	<0.005	0.26	<0.002	<0.006	<0.006	0.41	1.6E-03	**1.3**	<0.005	9.1E-03	**0.032**	<0.01
	8/20/2015	200.7/200.8	<0.005	0.31	<0.002	<0.006	<0.006	**4.1**	2.7E-03	**1.5**	<0.005	<0.005	**0.035**	<0.01
	6/10/2015	200.7/200.8	<0.005	0.29	<0.002	<0.006	<0.006	0.69	<0.005	**1.4**	<0.005	5.8E-03	**0.037**	0.021
	3/11/2015	200.7/200.8	<0.005	0.26	<0.002	<0.006	<0.006	0.34	1.5E-03	**1.2**	<0.005	0.011	**0.043**	<0.01
	11/14/2014	200.7/200.8	<0.005	0.29	<0.002	<0.006	<0.006	**4.4**	<0.005	**1.6**	<0.005	<0.005	**0.038**	0.018

8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	NE	NE	**0.015**	NE	NE	0.05	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**												
MKTF-25	11/1/2016	200.7/200.8	4.7E-03	0.28	<0.002	<0.006	<0.006	0.35	3.1E-04	**2.5**	<0.005	6.7E-03	**0.037**	0.035
	9/9/2016	200.7/200.8	5.8E-03	0.31	<0.002	<0.006	<0.006	0.11	6.6E-03	**2.7**	<0.005	7.4E-03	**0.032**	8.9E-03
	6/9/2016	200.7/200.8	4.9E-03	0.32	<0.002	<0.006	<0.006	0.47	1.0E-03	**2.9**	<0.005	9.6E-03	0.03	<0.01
	2/23/2016	200.7/200.8	3.6E-03	0.28	<0.002	<0.006	<0.006	0.46	2.7E-04	**2.9**	<0.005	3.3E-03	0.03	0.013
	11/5/2015	200.7/200.8	<0.005	0.34	<0.002	<0.006	<0.006	0.4	1.7E-03	**3.2**	<0.005	7.8E-03	0.03	<0.01
	8/21/2015	200.7/200.8	4.3E-03	0.35	<0.002	<0.006	<0.006	0.57	5.1E-04	**3.3**	<0.005	<0.01	**0.034**	<0.01
	6/10/2015	200.7/200.8	<0.005	0.32	<0.002	<0.006	<0.006	0.64	<0.005	**3.2**	<0.005	0.005	**0.033**	0.016
	3/11/2015	200.7/200.8	<0.01	0.26	<0.002	<0.006	<0.006	0.2	<0.001	**3.2**	<0.005	<0.02	**0.038**	0.017
	11/14/2014	200.7/200.8	<0.005	0.28	<0.002	<0.006	<0.006	0.21	<0.005	**3.1**	<0.005	<0.005	0.03	0.1
MKTF-26	6/9/2016	200.7/200.8	9.4E-03	0.074	<0.002	<0.006	<0.006	0.48	9.6E-04	**0.7**	<0.005	3.3E-02	**0.085**	0.004
	2/22/2016	200.7/200.8	2.4E-03	0.12	<0.002	<0.006	<0.006	0.38	1.3E-03	**0.9**	<0.005	3.1E-03	**0.042**	0.048
	11/4/2015	200.7/200.8	<0.005	0.14	<0.002	<0.006	<0.006	0.35	1.1E-03	**1.0**	<0.005	7.5E-03	**0.062**	<0.01
	8/20/2015	200.7/200.8	<0.005	0.1	<0.002	<0.006	<0.006	0.57	<0.0025	**1.1**	<0.005	<0.005	**0.092**	<0.01
	6/10/2015	200.7/200.8	<0.005	0.14	<0.002	<0.006	<0.006	0.86	<0.005	**1.2**	<0.005	<0.005	**0.063**	0.036
	3/11/2015	200.7/200.8	<0.01	0.17	<0.002	<0.006	<0.006	0.85	<0.001	**1.4**	<0.005	<0.01	**0.045**	0.068
	11/14/2014	200.7/200.8	<0.01	0.13	<0.002	<0.006	<0.006	0.18	<0.01	**1.4**	<0.005	<0.01	**0.066**	0.014
MKTF-27	10/28/2016	200.7/200.8	3.3E-03	0.065	<0.002	<0.006	<0.006	0.039	<0.0025	0.085	<0.005	9.5E-03	**0.059**	<0.01
	9/7/2016	200.7/200.8	0.003	0.067	<0.002	<0.006	<0.006	0.083	6.3E-04	**0.29**	<0.005	9.2E-03	**0.055**	3.4E-03
	6/8/2016	200.7/200.8	3.6E-03	0.074	<0.002	<0.006	<0.006	0.4	0.0025	**0.52**	<0.005	0.014	**0.056**	0.007
	2/22/2016	200.7/200.8	9.6E-04	0.063	<0.002	<0.006	<0.006	0.084	4.1E-04	0.12	<0.005	3.9E-03	**0.061**	0.012
	11/4/2015	200.7/200.8	<0.005	0.078	<0.002	<0.006	<0.006	0.12	<0.005	**0.7**	<0.005	<0.02	**0.066**	<0.01
	8/20/2015	200.7/200.8	<0.005	0.092	<0.002	<0.006	<0.006	**1.8**	<0.0025	**0.49**	<0.005	<0.01	**0.069**	<0.01
	6/9/2015	200.7/200.8	<0.005	0.083	<0.002	<0.006	<0.006	0.56	<0.005	**0.35**	<0.005	7.5E-03	**0.067**	0.01
	3/11/2015	200.7/200.8	<0.01	0.086	<0.002	<0.006	<0.006	0.15	<0.01	0.1	<0.005	0.014	**0.075**	<0.01
	11/14/2014	200.7/200.8	<0.01	0.094	<0.002	<0.006	<0.006	0.55	<0.01	**0.28**	<0.005	<0.01	**0.075**	0.03
MKTF-28	10/28/2016	200.7/200.8	4.7E-03	0.061	<0.002	<0.006	<0.006	0.049	2.2E-04	0.021	<0.005	0.012	**0.16**	<0.01
	9/8/2016	200.7/200.8	3.9E-03	0.061	<0.002	<0.006	<0.006	0.12	8.7E-04	0.031	<0.005	0.012	**0.14**	<0.01
	6/8/2016	200.7/200.8	5.4E-03	0.074	<0.002	<0.006	<0.006	0.14	7.6E-04	0.022	<0.005	0.015	**0.15**	0.012
	2/23/2016	200.7/200.8	2.6E-03	0.069	<0.002	<0.006	<0.006	0.064	3.9E-04	0.016	<0.005	6.1E-03	**0.16**	0.027
	11/4/2015	200.7/200.8	<0.01	0.08	<0.002	<0.006	<0.006	0.081	<0.0005	0.088	<0.005	<0.05	**0.15**	<0.01
	8/20/2015	200.7/200.8	<0.005	0.082	<0.002	<0.006	<0.006	0.19	<0.0025	0.018	<0.005	8.1E-03	**0.15**	<0.01
	6/9/2015	200.7/200.8	<0.005	0.087	<0.002	<0.006	<0.006	0.062	<0.005	5.4E-03	<0.005	0.012	**0.16**	0.031
	3/11/2015	200.7/200.8	<0.01	0.09	<0.002	<0.006	<0.006	0.075	<0.001	5.7E-03	<0.005	<0.05	**0.17**	<0.01
	11/14/2014	200.7/200.8	<0.005	0.099	<0.002	<0.006	<0.006	0.6	<0.005	**0.32**	<0.005	<0.02	**0.12**	0.038
MKTF-29	10/28/2016	200.7/200.8	1.6E-03	0.027	<0.002	<0.006	<0.006	<0.02	<0.0005	**0.39**	<0.005	2.6E-03	0.013	0.013
	9/7/2016	200.7/200.8	1.8E-03	0.037	<0.002	<0.006	<0.006	0.073	2.1E-03	**0.62**	<0.005	2.3E-03	0.012	<0.01
	6/9/2016	200.7/200.8	2.1E-03	0.028	<0.002	<0.006	<0.006	0.022	<0.0005	**0.39**	<0.005	3.9E-03	0.013	<0.01
	2/23/2016	200.7/200.8	1.2E-03	0.032	<0.002	<0.006	<0.006	0.059	9.7E-05	**0.5**	<0.005	1.3E-03	0.015	0.012
	11/4/2015	200.7/200.8	2.2E-03	0.041	<0.002	<0.006	<0.006	0.036	<0.005	**0.55**	<0.005	3.5E-03	0.016	<0.01
	8/20/2015	200.7/200.8	<0.005	0.041	<0.002	<0.006	<0.006	0.073	<0.0025	**0.49**	<0.005	<0.005	0.018	<0.01
	6/10/2015	200.7/200.8	<0.005	0.035	<0.002	<0.006	<0.006	0.049	<0.005	**0.36**	<0.005	<0.005	0.019	0.025
	3/11/2015	200.7/200.8	2.4E-03	0.031	<0.002	<0.006	<0.006	<0.02	<0.001	**0.34**	<0.005	4.5E-03	0.023	<0.01
MKTF-30	10/28/2016	200.7/200.8	2.7E-03	0.046	<0.002	<0.006	<0.006	<0.02	<0.0005	3.1E-03	<0.005	7.7E-03	0.029	<0.01
	9/7/2016	200.7/200.8	2.6E-03	0.046	<0.002	<0.006	<0.006	<0.02	0.022	0.053	<0.005	7.6E-03	0.026	4.8E-03
	6/9/2016	200.7/200.8	4.1E-03	0.04	<0.002	<0.006	<0.006	0.016	<0.0005	7.5E-03	<0.005	0.013	**0.034**	<0.01
	2/23/2016	200.7/200.8	<0.005	0.046	<0.002	<0.006	<0.006	0.057	3.6E-04	0.017	<0.005	4.2E-03	0.029	0.011

8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	NE	NE	**0.015**	NE	NE	0.05	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**												
MKTF-30	11/4/2015	200.7/200.8	<0.005	0.048	<0.002	<0.006	<0.006	0.036	<0.005	0.008	<0.005	0.01	0.024	<0.01
	8/20/2015	200.7/200.8	<0.005	0.071	<0.002	<0.006	<0.006	**2.4**	<0.0025	0.14	<0.005	<0.01	0.028	<0.01
	6/10/2015	200.7/200.8	<0.005	0.05	<0.002	<0.006	<0.006	0.58	<0.005	0.089	<0.005	6.5E-03	**0.033**	<0.01
	3/11/2015	200.7/200.8	<0.01	0.036	<0.002	<0.006	<0.006	0.19	<0.01	0.018	<0.005	0.014	**0.041**	<0.01
	11/17/2014	200.7/200.8	<0.01	0.036	<0.002	<0.006	<0.006	0.26	<0.001	0.021	<0.005	<0.01	**0.041**	0.039
MKTF-31	10/31/2016	200.7/200.8	2.6E-03	0.13	<0.002	<0.006	<0.006	0.02	<0.0005	0.018	<0.005	1.0E-02	**0.043**	<0.01
	9/8/2016	200.7/200.8	2.1E-03	0.14	<0.002	<0.006	<0.006	<0.02	8.4E-04	0.035	<0.005	6.8E-03	**0.04**	<0.01
	6/9/2016	200.7/200.8	4.3E-03	0.14	<0.002	<0.006	<0.006	0.013	<0.0005	0.018	<0.005	1.4E-02	**0.046**	<0.01
	2/23/2016	200.7/200.8	1.4E-03	0.12	<0.002	<0.006	<0.006	0.011	8.4E-05	0.02	<0.005	3.6E-03	**0.046**	0.01
	11/4/2015	200.7/200.8	<0.005	0.14	<0.002	<0.006	<0.006	<0.02	<0.005	0.033	<0.005	8.5E-03	**0.042**	<0.01
	8/21/2015	200.7/200.8	<0.005	0.14	<0.002	<0.006	<0.006	<0.02	<0.0005	0.035	<0.005	<0.01	**0.047**	<0.01
	6/10/2015	200.7/200.8	<0.005	0.13	<0.002	<0.006	<0.006	0.021	<0.005	0.026	<0.005	5.8E-03	**0.048**	0.032
	3/11/2015	200.7/200.8	<0.01	0.17	<0.002	<0.006	<0.006	0.026	<0.001	0.032	<0.005	0.013	**0.054**	<0.01
	11/17/2014	200.7/200.8	<0.005	0.17	<0.002	<0.006	<0.006	<0.02	<0.001	0.059	<0.005	7.5E-03	**0.045**	0.027
MKTF-32	10/31/2016	200.7/200.8	0.004	0.051	<0.002	<0.006	<0.006	0.05	<0.0025	0.056	<0.005	6.9E-03	**0.059**	9.6E-03
	9/9/2016	200.7/200.8	3.8E-03	0.05	<0.002	<0.006	<0.006	0.027	3.1E-04	0.074	<0.005	7.2E-03	**0.059**	9.5E-03
	6/9/2016	200.7/200.8	5.7E-03	0.064	<0.002	<0.006	<0.006	0.099	5.7E-04	0.082	<0.005	1.2E-02	**0.064**	<0.01
	2/24/2016	200.7/200.8	2.9E-03	0.049	<0.002	<0.006	<0.006	0.023	2.4E-04	0.062	<0.005	3.4E-03	**0.063**	0.012
	11/5/2015	200.7/200.8	<0.005	0.054	<0.002	<0.006	<0.006	0.064	<0.0005	0.076	<0.005	8.1E-03	**0.059**	<0.01
	8/21/2015	200.7/200.8	<0.005	0.077	<0.002	<0.006	<0.006	0.57	5.1E-04	0.06	<0.005	<0.01	**0.067**	<0.01
	6/9/2015	200.7/200.8	<0.005	0.057	<0.002	<0.006	<0.006	0.058	<0.005	0.082	<0.005	<0.005	**0.066**	0.016
	3/12/2015	200.7/200.8	<0.01	0.057	<0.002	<0.006	<0.006	0.18	<0.001	0.08	<0.005	<0.02	**0.068**	0.014
	11/17/2014	200.7/200.8	<0.005	0.064	<0.002	<0.006	<0.006	0.21	<0.001	0.094	<0.005	<0.01	**0.059**	0.01
MKTF-33	11/1/2016	200.7/200.8	1.1E-03	0.041	<0.002	<0.006	<0.006	<0.02	<0.0005	0.13	<0.005	2.8E-03	**0.038**	0.017
	9/10/2016	200.7/200.8	1.1E-03	0.043	<0.002	<0.006	<0.006	0.02	2.3E-04	0.13	<0.005	3.5E-03	**0.037**	<0.01
	6/10/2016	200.7/200.8	1.7E-03	0.04	<0.002	<0.006	<0.006	0.014	<0.0005	0.031	<0.005	0.004	**0.038**	0.011
	2/25/2016	200.7/200.8	7.9E-04	0.047	<0.002	<0.006	<0.006	0.045	1.1E-04	0.16	<0.005	1.8E-03	**0.04**	0.017
	11/9/2015	200.7/200.8	<0.005	0.062	<0.002	<0.006	<0.006	0.071	5.9E-04	**0.24**	<0.005	<0.005	**0.04**	<0.01
	8/21/2015	200.7/200.8	<0.005	0.054	<0.002	<0.006	<0.006	<0.02	<0.0005	**0.28**	<0.005	2.4E-03	**0.042**	<0.01
	6/9/2015	200.7/200.8	<0.005	0.055	<0.002	<0.006	<0.006	<0.02	<0.002	0.14	<0.005	<0.005	**0.044**	0.028
	3/12/2015	200.7/200.8	<0.01	0.061	<0.002	<0.006	<0.006	0.026	<0.001	**0.28**	<0.005	<0.01	**0.045**	0.017
	11/17/2014	200.7/200.8	<0.005	0.064	<0.002	<0.006	<0.006	0.061	<0.001	**0.24**	<0.005	<0.005	**0.045**	0.016
MKTF-34	11/8/2016	200.7/200.8	0.003	0.057	<0.002	<0.006	<0.006	<0.02	<0.0005	3.5E-04	<0.005	7.7E-03	**0.036**	3.1E-03
	9/13/2016	200.7/200.8	4.2E-03	0.11	<0.002	<0.006	<0.006	<0.02	<0.0005	5.3E-04	<0.005	0.016	**0.037**	3.2E-03
	6/10/2016	200.7/200.8	4.6E-03	0.1	<0.002	<0.006	<0.006	0.041	<0.0025	1.7E-03	<0.005	0.018	0.03	3.7E-03
	2/25/2016	200.7/200.8	3.2E-03	0.13	<0.002	<0.006	<0.006	0.017	1.3E-04	0.001	<0.005	0.01	0.03	0.012
	1/3/2015	200.7/200.8	<0.005	0.12	<0.002	<0.006	<0.006	<0.02	<0.0005	<0.002	<0.005	<0.02	0.027	<0.01
	8/18/2015	200.7/200.8	<0.01	0.13	<0.002	<0.006	<0.006	<0.02	<0.0025	<0.002	<0.005	<0.01	0.027	<0.01
	6/8/2015	200.7/200.8	<0.005	0.14	<0.002	<0.006	<0.006	0.11	<0.002	5.9E-03	<0.005	<0.01	0.029	0.018
	3/12/2015	200.7/200.8	<0.01	0.12	<0.002	<0.006	<0.006	0.21	<0.001	0.013	<0.005	<0.05	0.025	<0.01
	11/17/2014	200.7/200.8	<0.01	0.15	<0.002	<0.006	<0.006	<0.02	<0.001	4.1E-03	<0.005	<0.02	0.027	0.051
MKTF-35	11/3/2016	200.7/200.8	8.1E-04	0.23	<0.002	<0.006	<0.006	**3**	3.2E-04	**2.9**	<0.005	1.4E-03	7.5E-04	<0.01
	9/13/2016	200.7/200.8	8.9E-04	0.17	<0.002	<0.006	<0.006	**2.7**	<0.0005	**3.1**	<0.005	2.6E-03	1.0E-03	3.2E-03
	6/10/2016	200.7/200.8	6.1E-04	0.37	<0.002	<0.006	<0.006	**2.5**	<0.0005	**2.7**	<0.005	2.3E-03	1.1E-03	<0.01
	2/26/2016	200.7/200.8	4.6E-04	0.43	<0.002	<0.006	<0.006	**2.8**	3.7E-04	**3.0**	<0.005	8.9E-04	1.6E-03	9.9E-03

8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	NE	NE	**0.015**	NE	NE	0.05	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**												
MKTF-35	11/3/2015	200.7/200.8	<0.005	0.57	<0.002	<0.006	<0.006	**2.6**	<0.0005	**3.0**	<0.005	3.5E-03	1.9E-03	<0.01
	8/18/2015	200.7/200.8	<0.01	0.96	<0.002	<0.006	<0.006	**2.8**	<0.0025	**2.9**	<0.005	<0.01	<0.0025	<0.01
	6/4/2015	200.7/200.8	<0.005	0.36	<0.002	<0.006	<0.006	**2.6**	<0.005	**3.1**	<0.005	<0.005	<0.005	0.017
	3/17/2015	200.7/200.8	<0.01	0.31	<0.002	<0.006	<0.006	**3.6**	1.1E-03	**3.5**	<0.005	<0.01	2.6E-03	<0.01
MKTF-36	11/8/2016	200.7/200.8	**0.015**	**6.0**	<0.002	<0.006	<0.006	**13**	2.2E-03	**1.9**	<0.005	4.2E-03	2.1E-04	5.5E-03
	8/18/2015	200.7/200.8	**0.018**	**6.1**	<0.002	0.0064	<0.006	**18**	<0.0025	**2.5**	<0.005	<0.01	<0.0025	<0.01
	6/4/2015	200.7/200.8	**0.016**	**6.6**	<0.002	<0.006	<0.006	**18**	<0.005	**2.4**	<0.005	<0.005	<0.005	0.012
	3/17/2015	200.7/200.8	**0.015**	**6.4**	<0.002	<0.006	<0.006	**19**	3.4E-03	**2.6**	<0.005	<0.01	<0.001	0.047
MKTF-37	11/3/2016	200.7/200.8	3.5E-03	0.58	<0.002	<0.006	<0.006	0.25	2.5E-04	**0.46**	<0.005	0.003	**0.036**	<0.01
	8/19/2015	200.7/200.9	<0.02	**1.19**	<0.002	<0.006	<0.006	**2.6**	4.7E-03	**1.8**	<0.005	<0.01	**1.019**	<0.02
	6/4/2015	200.7/200.8	<0.01	0.19	<0.002	<0.006	<0.006	**1.8**	<0.01	**2.3**	<0.005	<0.01	0.023	0.039
	3/17/2015	200.7/200.8	<0.005	0.16	<0.002	<0.006	<0.006	**1.1**	7.1E-03	**2.7**	<0.005	<0.01	0.021	0.029
MKTF-38	11/1/2016	200.7/200.8	1.4E-03	0.044	<0.002	<0.006	<0.006	0.038	<0.0005	**3.3**	<0.005	0.004	0.013	<0.01
	9/13/2016	200.7/200.8	1.8E-03	0.039	<0.002	<0.006	<0.006	<0.02	<0.0005	**3.1**	<0.005	5.3E-03	0.013	0.004
	6/8/2016	200.7/200.8	1.3E-03	0.031	<0.002	<0.006	<0.006	0.015	<0.0005	**2.8**	<0.005	5.7E-03	0.013	7.4E-03
	2/29/2016	200.7/200.8	1.4E-03	0.03	<0.002	<0.006	<0.006	0.07	4.7E-05	**2.3**	<0.005	3.3E-03	0.012	0.012
	11/9/2015	200.7/200.8	<0.005	0.066	<0.002	<0.006	<0.006	0.22	0.001	**3.4**	<0.005	<0.05	0.019	<0.01
	8/24/2015	200.7/200.8	1.9E-03	0.066	<0.002	<0.006	<0.006	0.094	<0.0005	**3.0**	<0.005	3.3E-03	0.023	<0.01
	6/10/2015	200.7/200.8	<0.005	0.074	<0.002	<0.006	<0.006	0.31	<0.005	**3.1**	<0.005	<0.005	0.021	0.021
	3/16/2015	200.7/200.8	<0.01	0.14	<0.002	<0.006	<0.006	0.24	<0.001	**3.1**	<0.005	<0.01	0.025	0.096
MKTF-39	11/1/2016	200.7/200.8	3.6E-03	**6**	<0.002	<0.006	<0.006	**6.9**	4.5E-04	**1.2**	<0.005	0.01	7.8E-05	<0.01
	9/13/2016	200.7/200.8	4.7E-03	**8.9**	<0.002	<0.006	<0.006	**9.6**	3.8E-04	**1.7**	<0.005	0.016	7.1E-05	3.1E-03
	6/8/2016	200.7/200.8	2.4E-03	**7.5**	<0.002	<0.006	<0.006	**8.3**	1.3E-03	**1.2**	<0.005	6.1E-03	1.1E-04	<0.01
	3/3/2016	200.7/200.8	1.7E-03	**11**	<0.002	<0.006	<0.006	**11**	3.9E-04	**1.7**	<0.005	6.6E-03	9.3E-05	9.2E-03
	11/9/2015	200.7/200.8	<0.005	**30**	<0.002	<0.006	<0.006	**29**	<0.005	**3.9**	<0.005	<0.02	<0.005	<0.01
	8/23/2015	200.7/200.8	<0.005	**44**	<0.002	<0.006	<0.006	**45**	<0.0025	**5.8**	<0.005	<0.01	<0.0025	0.023
	6/10/2015	200.7/200.8	<0.01	**67**	<0.002	<0.006	<0.006	**60**	<0.01	**8.8**	<0.005	<0.01	<0.01	0.012
	3/16/2015	200.7/200.8	<0.01	**21**	<0.002	<0.006	<0.006	**31**	<0.005	**7.0**	<0.005	0.011	9.9E-03	<0.01
MKTF-40	10/31/2016	200.7/200.8	3.9E-03	0.1	<0.002	<0.006	<0.006	0.045	<0.0025	0.11	<0.005	0.012	**0.06**	2.9E-03
	9/8/2016	200.7/200.8	2.3E-03	0.11	<0.002	<0.006	<0.006	0.11	<0.0025	0.052	<0.005	9.6E-03	**0.059**	3.1E-03
	6/9/2016	200.7/200.8	<0.05	0.13	<0.002	<0.006	<0.006	0.089	<0.0025	0.18	<0.005	0.019	**0.058**	<0.01
	2/23/2016	200.7/200.8	<0.01	0.064	<0.002	<0.006	<0.006	0.093	0.00053	0.041	<0.005	<0.01	**0.077**	0.016
	11/4/2015	200.7/200.8	<0.005	0.15	<0.002	<0.006	<0.006	0.051	<0.0025	**0.23**	<0.005	<0.02	**0.06**	<0.01
	8/21/2015	200.7/200.8	<0.005	0.086	<0.002	<0.006	<0.006	0.039	<0.0025	0.18	<0.005	7.8E-03	**0.087**	<0.01
	6/10/2015	200.7/200.8	<0.005	0.16	<0.002	<0.006	<0.006	0.11	<0.005	0.15	<0.005	9.6E-03	**0.069**	0.022
	3/11/2015	200.7/200.8	<0.01	0.19	<0.002	<0.006	<0.006	0.11	<0.01	0.2	<0.005	0.02	**0.07**	<0.01
MKTF-41	10/31/2016	200.7/200.8	5.4E-03	0.058	<0.002	<0.006	<0.006	0.052	<0.0025	4.3E-03	<0.005	0.05	0.013	<0.01
	9/9/2016	200.7/200.8	<0.05	0.059	<0.002	<0.006	<0.006	<0.02	<0.0005	1.2E-03	<0.005	0.048	0.014	9.8E-03
	6/9/2016	200.7/200.8	7.5E-03	0.071	<0.002	2.7E-03	<0.006	0.19	9.1E-04	0.019	<0.005	**0.06**	0.023	2.9E-03
	2/24/2016	200.7/200.8	5.1E-03	0.07	<0.002	0.0025	<0.006	0.074	3.5E-04	6.8E-03	<0.005	0.047	0.023	6.3E-03
	11/5/2015	200.7/200.8	<0.01	0.083	<0.002	<0.006	<0.006	0.27	1.5E-03	0.037	<0.005	**0.054**	0.022	<0.01
	8/21/2015	200.7/200.8	<0.01	0.097	<0.002	<0.006	<0.006	**1.4**	1.3E-03	0.044	<0.005	0.049	0.026	<0.01
	6/9/2015	200.7/200.8	<0.005	0.073	<0.002	<0.006	<0.006	0.18	<0.005	0.011	<0.005	0.045	0.03	0.018
	3/12/2015	200.7/200.8	<0.01	0.081	<0.002	<0.006	<0.006	0.2	<0.001	0.024	<0.005	**0.059**	**0.034**	0.013

8.17.3 MKTF WELLS

Dissolved Metals Analytical Result Summary

STANDARDS			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Silver (mg/L)	Selenium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	**1.0**	0.01	**0.05**	**1.0**	**1.0**	0.05	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL			**0.01**	2.0	**0.005**	0.1	NE	NE	**0.015**	NE	NE	0.05	0.03	NE
NMED Tap Water (JUL 2015)			0.000513	3.28	0.00624	0.00559	0.79	13.8	NE	2.02	0.0812	0.0987	0.0592	5.96
EPA RSL for Tap Water (MAY 2016)			5.2E-05	0.38	0.0092	NE	0.8	14	0.015	0.43	0.094	0.1	0.06	6
Well ID	**DATE SAMPLED**	**METHOD**												
MKTF-42	10/31/2016	200.7/200.8	4.4E-03	0.075	<0.002	<0.006	<0.006	0.18	<0.0025	**0.3**	<0.005	0.012	0.013	<0.01
	9/9/2016	200.7/200.8	3.3E-03	0.078	<0.002	<0.006	5.2E-03	0.081	6.7E-04	**0.29**	<0.005	9.5E-03	0.019	7.8E-03
	6/9/2016	200.7/200.8`	0.006	0.079	<0.002	<0.006	<0.006	0.077	3.1E-04	**0.37**	<0.005	0.016	0.021	<0.01
	2/24/2016	200.7/200.8	2.9E-03	0.073	<0.002	<0.006	<0.006	0.19	1.6E-04	**0.44**	<0.005	7.1E-03	0.025	9.9E-03
	11/5/2015	200.7/200.8	<0.005	0.071	<0.002	<0.006	<0.006	0.092	<0.0005	**0.43**	<0.005	0.012	0.024	<0.01
	8/21/2015	200.7/200.8	<0.005	0.078	<0.002	<0.006	<0.006	0.046	<0.0005	**0.39**	<0.005	7.5E-03	0.029	<0.01
	6/9/2015	200.7/200.8	<0.005	0.082	<0.002	<0.006	<0.006	0.031	<0.005	**0.55**	<0.005	7.2E-03	**0.035**	<0.01
	3/11/2015	200.7/200.8	<0.01	0.094	<0.002	<0.006	<0.006	0.11	<0.001	**0.54**	<0.005	0.015	**0.04**	0.036
MKTF-43	10/31/2016	200.7/200.8	<0.05	0.13	<0.002	<0.006	<0.006	0.48	<0.01	**19**	<0.005	<0.5	**0.19**	0.016
	9/9/2016	200.7/200.8	**0.018**	0.086	<0.002	<0.006	<0.006	0.073	<0.005	**23**	<0.005	**0.067**	**0.25**	0.013
	6/9/2016	200.7/200.8	**0.027**	0.065	<0.002	<0.006	<0.006	0.11	<0.005	**20**	<0.005	**0.091**	**0.27**	7.3E-03
	2/24/2016	200.7/200.8	**0.013**	0.057	<0.002	<0.006	<0.006	0.041	<0.025	**12**	<0.005	0.043	**0.24**	0.017
	11/5/2015	200.7/200.8	<0.05	0.085	<0.002	<0.006	<0.006	0.11	<0.005	**14**	<0.005	**0.094**	**0.25**	0.011
	8/21/2015	200.7/200.8	<0.02	0.1	<0.002	<0.006	<0.006	0.062	<0.01	**20**	<0.005	**0.06**	**0.28**	<0.1
	6/10/2015	200.7/200.8	<0.05	0.12	<0.002	<0.006	<0.006	**1.1**	<0.05	**15**	<0.005	<0.1	**0.23**	0.032
	3/11/2015	200.7/200.8	<0.05	0.17	<0.01	0.048	<0.03	0.49	<0.05	**3.7**	<0.025	**0.11**	**0.15**	<0.05
MKTF-44	11/1/2016	200.7/200.8	9.5E-03	0.037	<0.002	4.3E-03	<0.006	0.37	1.2E-03	0.011	<0.005	0.014	**0.17**	6.1E-03
	9/9/2016	200.7/200.8	8.8E-03	0.058	<0.002	7.7E-03	4.1E-03	0.97	0.005	0.042	<0.005	0.015	**0.17**	7.8E-03
	6/9/2016	200.7/200.8	4.9E-03	0.11	<0.002	0.011	<0.006	0.045	1.9E-04	3.1E-03	<0.005	0.016	**0.17**	<0.01
	2/24/2016	200.7/200.8	5.2E-03	0.072	<0.002	9.0E-03	<0.006	0.13	3.9E-04	4.6E-03	<0.005	0.012	**0.18**	0.014
	11/9/2015	200.7/200.8	<0.01	0.053	<0.002	6.2E-03	<0.006	0.87	5.3E-03	0.081	<0.005	0.014	**0.21**	<0.01
	8/17/2015	200.7/200.8	<0.005	0.11	<0.002	0.013	<0.006	**2.6**	7.5E-03	0.2	<0.005	0.015	**0.21**	0.016
	6/10/2015	200.7/200.8	<0.005	0.05	<0.002	9.9E-03	<0.006	0.91	<0.005	0.042	<0.005	0.015	**0.21**	0.021
	3/12/2015	200.7/200.8	<0.01	0.07	<0.002	7.2E-03	<0.006	0.85	3.1E-03	0.079	<0.005	0.017	**0.22**	0.011

DEFINITIONS
NE = Not established
NA = Not analyzed
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES
2) 2009 Method 6010B Total Recoverable Metals Analysis run
3) Water level too shallow to collect samples.
4) Was not sampled in September due to low recharge rate.
5) Quarterly combined with 2013 Annual sampling event.

8.17.4 MKTF WELLS

Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS			PARAMETERS																						
			Acenaphthene (mg/L)	Aniline (mg/L)	Benz(a) anthracene (mg/L)	Benzoic Acid (mg/L)	Benzyl alcohol (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Butyl benzyl phthalate (mg/L)	Carbazole (mg/L)	Di-n-octyl phthalate (mg/L)	Dibenzo furan (mg/L)	1,4-Dichlorob enzene (mg/L)	Dimethyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluorene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphthalene (mg/L)	Penta chloro phenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	**0.005**	NE	NE
40 CFR 141.62 MCL			NE	NE	NE	NE	NE	**0.006**	NE	NE	NE	NE	**0.075**	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NMED Tap Water (JUL 2015)			**0.535**	NE	**0.000343**	NE	NE	0.0556	NE	NE	NE	NE	0.302	NE	**0.354**	**0.288**	NE	NE	NE	NE	**0.00165**	**0.0004**	**0.17**	5.76	**0.117**	NE
EPA RSL for Tap Water (MAY 2016)			0.53	**0.013**	0.000012	**75**	**2**	0.0056	**0.0016**	NE	**0.2**	**0.0079**	0.00048	NE	0.36	0.29	**1.1E-03**	**0.036**	**0.93**	**0.93**	1.7E-04	4.1E-05	NE	5.8	0.12	**0.02**
Well ID	DATE SAMPLED	METHOD																								
MKTF-1	2/24/2016	8270C		9.9E-03		<0.02		<0.01		<0.01					0.026	<0.01	**0.052**	0.022	0.038	0.046	**0.088**		<0.01	**0.012**		
	11/4/2015	8270C		0.011		<0.02		<0.01		<0.01					0.068	<0.01	**0.2**	**0.087**	0.049	0.07	**0.12**		0.012	**0.036**		
	8/21/2015	8270c		**0.014**		<0.02		<0.01		<0.01					0.046	<0.01	**0.14**	0.03	0.054	0.05	**0.1**		<0.01	**0.022**		
	6/9/2015	8270C		<0.01		<0.02		<0.01		<0.01					0.08	<0.01	**0.34**	**0.16**	0.076	0.05	**0.19**		0.022	**0.031**		
	3/11/2015	8270C		**0.018**		<0.02		<0.01		<0.01					0.051	<0.01	**0.12**	<0.01	0.061	0.035	**0.09**		<0.01	**0.023**		
	6/6/2014	8270C		<0.01		<0.02		<0.01		<0.01					0.05	0.02	**0.31**	**0.31**	0.06	0.031	**0.31**		0.028	**0.019**		
MKTF-2	10/28/2016	8270C		<0.01	<0.01	<0.02		**7.1E-03**	**2.7E-03**	<0.01	6.8E-03			<0.01	<0.01	<0.01	**0.006**	<0.01	<0.01	<0.01	4.6E-03		<0.01	<0.01		
	9/7/2016	8270C		<0.01	**2.8E-03**	8.3E-03		4.3E-03		<0.01	3.4E-03			5.4E-03	<0.01	<0.01	**8.2E-03**	<0.01	<0.01	<0.01	**5.1E-03**		<0.01	**6.7E-03**		
	6/10/2016	8270C		<0.05		<0.1		**0.018**		<0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		
	2/24/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/5/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	8/21/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/9/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	3/11/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/14/2014	8270C		<0.01		<0.02		**0.011**		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	9/18/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	**0.023**	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	6/6/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	4/8/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
MKTF-4	11/2/2016	8270C	5.5E-03	<0.01		<0.02		**6.8E-03**		0.02	7.3E-03	<0.01			4.3E-03	8.2E-03	**0.15**	**0.17**	<0.01	<0.01	**0.25**		0.008	2.6E-03		<0.01
	9/11/2016	8270C	4.9E-03	<0.01		<0.02		3.6E-03		0.017	4.9E-03	2.5E-03			<0.01	5.2E-03	**0.14**	**0.16**	<0.01	<0.01	**0.22**		7.1E-03	3.7E-03		3.3E-03
	6/9/2016	8270C		<0.05		<0.1		**0.018**		0.018	0.028				<0.05	<0.05	**0.13**	**0.13**	<0.05	<0.05	**0.18**		<0.05	<0.05		
	2/29/2016	8270C		<0.01		<0.02		<0.01		0.026					0.008	7.5E-03	**0.17**	**0.19**	<0.01	<0.01	**0.33**		8.6E-03	<0.01		
	11/3/2015	8270C		<0.01		<0.02		<0.01		0.019					<0.01	<0.01	**0.15**	**0.16**	<0.01	<0.01	**0.27**		<0.01	<0.01		
	8/18/2015	8270C		<0.01		<0.02		<0.01		0.021					<0.01	<0.01	**0.15**	**0.096**	<0.01	<0.01	**0.26**		<0.01	<0.01		
	6/4/2015	8270C		<0.01		<0.02		<0.01		0.015					<0.01	<0.01	**0.12**	**0.076**	<0.01	<0.01	**0.19**		<0.01	<0.01		
	3/16/2015	8270C		<0.01		<0.02		<0.01		0.014					<0.01	<0.01	**0.051**	0.025	<0.01	<0.01	**0.059**		<0.01	<0.01		
	11/13/2014	8270C		<0.01		<0.02		<0.01		0.017					<0.01	<0.01	**0.061**	**0.047**	<0.01	<0.01	**0.08**		<0.01	<0.01		
	9/24/2014[1]	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	**0.13**	**0.16**	<0.02	<0.01	**0.19**		<0.01	<0.01		
	6/4/2014	8270C		<0.01		0.021		<0.01		0.011					<0.01	<0.01	**0.11**	**0.14**	<0.02	<0.01	**0.24**		<0.01	<0.01		
	4/11/2014	8270C		<0.01		<0.02		<0.01		0.017					<0.01	<0.01	**0.12**	**0.16**	<0.02	<0.01	**0.23**		<0.01	<0.01		
MKTF-9	11/2/2016	8270C	3.8E-03	<0.01		<0.02		**6.6E-03**		0.01	7.0E-03				<0.01	6.1E-03	**0.048**	<0.01	<0.01	<0.01	**0.023**	<0.02	6.6E-03	2.5E-03		<0.01
	9/11/2016	8270C	4.6E-03	<0.01		<0.02		3.5E-03		0.011	0.005				<0.01	4.4E-03	**0.064**	5.2E-03	<0.01	<0.01	**0.023**	**9.4E-03**	6.5E-03	**0.012**		7.1E-03
	6/9/2016	8270C	3.4E-03	<0.01		<0.02		3.5E-03		8.8E-03	5.1E-03				<0.01	<0.01	**0.046**	5.1E-03	<0.01	<0.01	**0.018**		5.1E-03	**6.4E-03**		
	2/29/2016	8270C		<0.01		<0.02		<0.01		0.012					<0.01	<0.01	**0.069**	0.01	<0.01	<0.01	**0.032**		<0.01	<0.01		
	11/3/2015	8270C		<0.01		<0.02		<0.01		0.013					<0.01	<0.01	**0.085**	0.011	<0.01	<0.01	**0.034**		<0.01	<0.01		
	8/18/2015	8270C		<0.10		<0.02		<0.01		0.016					<0.01	<0.01	**0.08**	<0.01	<0.01	<0.01	**0.023**		0.011	<0.01		
	6/4/2015	8270C		<0.10		<0.02		<0.01		0.01					<0.01	<0.01	**0.036**	<0.01	<0.01	<0.01	**0.012**		<0.01	<0.01		
	3/16/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	**0.027**	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/14/2014	8270C		<0.01		<0.02		**0.011**		<0.01					<0.01	<0.01	**0.049**	<0.01	<0.01	<0.01	**0.021**		<0.01	<0.01		
	9/18/2014	8270C		<0.01		<0.02		<0.01		0.01					<0.01	<0.01	**0.031**	<0.01	<0.02	<0.01	**0.018**		<0.01	<0.01		
	6/5/2014	8270C		<0.01		<0.02		<0.01		0.01					<0.01	<0.01	**0.058**	0.014	<0.02	<0.01	**0.041**		<0.01	<0.01		
	4/14/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	**0.046**	0.01	<0.02	<0.01	**0.031**		<0.01	<0.01		
MKTF-10	11/2/2016	8270C		<0.05		0.056	<0.05	**0.034**	**0.014**	<0.05	0.037				0.039	<0.05	**0.047**	**0.07**	0.13	0.18	**0.15**		<0.05	**0.079**		
	9/11/2016	8270C		**0.06**		0.05	6.2E-03	3.7E-03		4.4E-03	0.005				0.2	<0.01	**0.051**	**0.077**	0.69	**1.1**	**0.15**		<0.01	**0.26**		
	6/9/2016	8270C		<0.05		<0.1		**0.018**		<0.05	0.025				0.21	<0.05	**0.056**	**0.072**	0.82	0.92	**0.15**		<0.05	**0.36**		
	2/29/2016	8270C		**0.042**		<0.02		<0.01		<0.01					0.17	<0.01	**0.057**	**0.08**	0.77	1.0	**0.2**		<0.01	**0.67**		
	11/3/2015	8270C		**0.029**		<0.02		<0.01		<0.01					0.093	<0.01	**0.06**	**0.069**	0.28	0.42	**0.14**		<0.01	**0.24**		
	8/18/2015	8270C		**0.06**		<0.02		<0.01		<0.01					0.085	<0.01	**0.14**	**0.13**	0.45	0.65	**0.25**		<0.01	**0.41**		
	6/4/2015	8270C		<0.01		<0.02		<0.01		<0.01					0.1	<0.01	**0.066**	**0.084**	0.35	0.54	**0.18**		<0.01	**0.28**		
	3/16/2015	8270C		**0.067**		<0.02		<0.01		<0.01					0.11	<0.01	<0.01	**0.088**	0.53	0.63	**0.17**		<0.01	**0.42**		
	11/14/2014	8270C		**0.054**		<0.02		**0.01**		<0.01					0.063	<0.01	**0.046**	**0.051**	0.33	0.4	**0.099**		<0.01	**0.29**		
	9/18/2014	8270C		**0.073**		<0.02		<0.01		<0.01					0.09	<0.01	**0.036**	**0.042**	0.32	0.38	**0.098**		<0.01	**0.25**		
	6/6/2014	8270C		**0.075**		<0.02		<0.01		<0.01					0.11	<0.01	**0.04**	**0.053**	0.49	0.61	**0.14**		<0.01	**0.37**		
	4/11/2014	8270C		**0.075**		<0.023		<0.012		<0.012					0.12	<0.012	**0.042**	**0.056**	0.3	0.26	**0.14**		<0.012	**0.061**		
MKTF-11	11/2/2016	8270C		0.007		<0.02		**6.4E-03**	**2.7E-03**	2.4E-03	7.2E-03			<0.01	0.013	<0.01	**0.015**	9.5E-03	0.096	0.089	**0.034**		<0.01	**0.04**		
	9/11/2016	8270C		9.3E-03		<0.02		3.7E-03		<0.01	3.7E-03			2.9E-03	0.042	<0.01	**0.012**	0.009	0.13	0.12	**0.03**		<0.01	**0.049**		
	6/9/2016	8270C		3.7E-03		<0.02		3.2E-03		<0.01	4.8E-03				0.022	<0.01	**0.015**	0.01	0.088	0.063	**0.033**		<0.01	**0.045**		
	2/29/2016	8270C		0.011		<0.02		<0.01		<0.01					0.018	<0.01	**0.014**	0.011	0.084	0.049	**0.038**		<0.01	**0.029**		
	11/3/2015	8270C		**0.038**		<0.02		<0.01		<0.01					0.11	<0.01	**0.022**	0.023	0.3	0.27	**0.073**		<0.01	**0.09**		
	8/18/2015	8270C		<0.01		<0.029		<0.01		<0.01					0.015	<0.01	**0.01**	<0.01	0.049	0.029	**0.017**		<0.01	**0.027**		
	6/4/2015	8270C		**0.046**		<0.02		<0.01		<0.01					0.14	<0.01	**0.02**	0.021	0.3	0.23	**0.07**		<0.01	**0.053**		
	3/16/2015	8270C		**0.044**		<0.02		<0.01		<0.01					0.11	<0.01	**0.025**	0.02	0.27	0.24	**0.069**		<0.01	**0.052**		
	11/13/2014	8270C		<0.01		<0.02		**0.014**		<0.01					0.012	<0.01	**0.015**	<0.01	0.07	0.046	**0.031**		<0.01	**0.02**		
	9/24/2014[1]	8270C		**0.027**		<0.02		<0.10		<0.01					0.19	<0.01	**0.024**	0.022	0.35	0.24	**0.067**		<0.01	**0.078**		
	6/5/2014	8270C		**0.025**		<0.02		<0.01		<0.01					0.092	<0.01	**0.011**	<0.01	0.18	0.13	**0.046**		<0.01	**0.032**		
`	4/11/2014	8270C		**0.023**		<0.02		<0.01		<0.01					0.078	<0.01	**0.012**	<0.01	0.16	0.11	**0.038**		<0.01	**0.021**		

8.17.4 MKTF WELLS

Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS			Acenaphthene (mg/L)	Aniline (mg/L)	Benz(a) anthracene (mg/L)	Benzoic Acid (mg/L)	Benzyl alcohol (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Butyl benzyl phthalate (mg/L)	Carbazole (mg/L)	Di-n-octyl phthalate (mg/L)	Dibenzo furan (mg/L)	1,4-Dichlorob enzene (mg/L)	Dimethyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluorene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphthalene (mg/L)	Penta chloro phenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.005	NE	NE
40 CFR 141.62 MCL			NE	NE	NE	NE	NE	0.006	NE	NE	NE	NE	0.075	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NMED Tap Water (JUL 2015)			0.535	NE	0.000343	NE	NE	0.0556	NE	NE	NE	NE	0.302	NE	0.354	0.288	NE	NE	NE	NE	0.00165	0.0004	0.17	5.76	0.117	NE
EPA RSL for Tap Water (MAY 2016)			0.53	0.013	0.000012	75	2	0.0056	0.0016	NE	0.2	0.0079	0.00048	NE	0.36	0.29	1.1E-03	0.036	0.93	0.93	1.7E-04	4.1E-05	NE	5.8	0.12	0.02
Well ID	DATE SAMPLED	METHOD																								
MKTF-15	11/2/2016	8270C		<0.05		0.065		0.035	0.013	<0.05	0.036			<0.05	0.079	<0.05	<0.05	<0.05	0.46	0.55	0.059		<0.05	2		
	9/11/2016	8270C		<0.01		0.011		3.1E-03		0.004	4.5E-03			0.017	0.23	<0.01	0.013	0.014	1.8	2.6	0.053		<0.01	5.8		
	9/17/2014	8270C		<0.01		<0.02		<0.01		<0.01					0.013	<0.01	0.035	0.033	0.024	<0.01	0.048		<0.01	<0.01		
	6/5/2014	8270C		<0.01		0.023		<0.01		<0.01					0.013	<0.01	0.021	0.021	0.028	<0.01	0.05		<0.01	<0.01		
	4/10/2014	8270C		<0.012		<0.025		<0.012		<0.012					0.016	<0.012	0.02	0.021	0.043	<0.012	0.048		<0.012	0.015		
MKTF-16	11/3/2016	8270C		<0.01		0.038		6.9E-03	2.7E-03	<0.01	7.4E-03				0.059	3.5E-03	0.04	0.037	0.026	0.003	0.13		<0.01	0.18		
	9/12/2016	8270C		5.6E-03		0.024		0.004		3.6E-03	3.6E-03				0.084	<0.01	0.046	0.051	0.071	<0.01	0.13		<0.01	0.14		
	6/9/2016	8270C		<0.05		<0.1		0.019		<0.05	0.025				0.083	<0.05	0.035	0.038	0.061	<0.05	0.1		<0.05	0.17		
	2/29/2016	8270C		0.011		<0.02		<0.01		<0.01					0.091	<0.01	0.033	0.042	0.079	<0.01	0.11		<0.01	0.03		
	11/3/2015	8270C		0.02		<0.02		<0.01		<0.01					0.12	<0.01	0.035	0.046	0.081	<0.01	0.13		<0.01	0.057		
	8/23/2015	8270C		0.025		<0.02		<0.01		<0.01					0.13	<0.01	0.044	0.055	0.1	0.015	0.16		<0.01	0.042		
	6/8/2015	8270C		0.021		<0.02		<0.01		<0.01					0.18	<0.01	0.042	0.046	0.12	<0.1	0.14		<0.01	0.048		
	3/16/2015	8270C		0.02		<0.02		<0.01		<0.01					0.19	<0.01	0.045	0.053	0.15	<0.01	0.15		<0.01	0.031		
	11/18/2014	8270C		0.018		<0.02		0.014		<0.01					0.08	<0.01	0.047	0.051	0.14	0.016	0.13		<0.01	0.038		
	9/17/2014	8270C		0.024		<0.02		<0.01		<0.01					0.18	<0.01	0.053	0.062	0.15	0.03	0.18		<0.01	0.031		
	6/16/2014 [1]	8270C		0.011		<0.02		<0.01		<0.01					0.17	<0.01	0.037	0.042	0.22	0.16	0.14		<0.01	0.42		
	4/10/2014	8270C		0.015		<0.02		<0.01		<0.01					0.2	<0.01	0.035	0.044	0.16	0.091	0.13		<0.01	0.09		
MKTF-17	11/8/2016	8270C		<0.01		<0.02		6.9E-03	2.7E-03	<0.01	0.007				<0.01	0.003	0.011	<0.01	<0.01	<0.01	7.7E-03		<0.01	3.5E-03		
	9/13/2016	8270C		<0.01		<0.02		3.8E-03		<0.01	<0.01				<0.01	<0.01	6.3E-03	<0.01	<0.01	<0.01	6.4E-03		<0.01	2.9E-03		
	6/10/2016	8270C		<0.01		<0.02		<0.01		<0.01	0.005				4.4E-03	<0.01	0.026	<0.01	<0.01	<0.01	0.062		<0.01	9.8E-03		
	2/26/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/3/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	8/18/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	6/8/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	3/12/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	11/18/2014	8270C		<0.01		<0.02		0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	9/18/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.02	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	6/16/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	0.039		
	4/9/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	0.024		<0.01	<0.01		
MKTF-18	11/8/2016	8270C	5.6E-03	<0.01		<0.02		6.5E-03	2.6E-03	<0.01	6.9E-03				<0.01	7.1E-03	0.057	0.02	<0.01	<0.01	0.018		3.7E-03	<0.01		
	9/13/2016	8270C	4.3E-03	<0.01		6.4E-03		<0.01		<0.01	<0.01				<0.01	0.006	0.049	0.02	<0.01	<0.01	0.014		3.6E-03	<0.01		
	6/10/2016	8270C	5.5E-03	<0.01		<0.02		<0.01		<0.01	4.9E-03				<0.01	4.1E-03	0.054	0.014	<0.01	<0.01	0.013		3.7E-03	<0.01		
	2/26/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.06	0.017	<0.01	<0.01	0.016		<0.01	<0.01		
	11/3/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.079	0.017	<0.01	<0.01	0.023		<0.01	<0.01		
	8/18/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	0.011	0.14	0.042	<0.01	<0.01	0.042		0.012	<0.01		
	6/8/2015	8270c		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.077	0.013	<0.01	<0.01	0.029		<0.01	<0.01		
	3/17/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.1	0.028	<0.01	<0.01	0.032		<0.01	<0.01		
	11/18/2014	8270C		<0.01		<0.02		0.012		<0.01					<0.02	<0.01	0.11	0.036	<0.01	<0.01	0.055		<0.01	<0.01		
	9/18/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.12	0.023	<0.02	<0.01	0.059		<0.01	<0.01		
	6/6/2014	8270C		<0.014		<0.029		<0.014		<0.014					<0.014	<0.014	0.064	<0.014	<0.029	<0.014	0.026		<0.014	<0.014		
	4/14/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.11	0.035	<0.02	<0.01	0.061		<0.01	<0.01		
MKTF-19	11/8/2016	8270C	0.005	<0.01		<0.02		7.3E-03		0.006	0.008			3.5E-03	5.6E-03	7.3E-03	0.12	0.18	<0.01	<0.01	0.27		5.5E-03	6.6E-03	4.4E-03	
	9/13/2016	8270C	4.8E-03	<0.01		<0.02		<0.01		5.2E-03	<0.01			5.9E-03	4.3E-03	6.9E-03	0.11	0.14	<0.01	<0.01	0.24		4.3E-03	6.2E-03		
	6/10/2016	8270C	5.8E-03	<0.01		<0.02		3.5E-03		7.2E-03	5.1E-03				<0.01	4.4E-03	0.12	0.16	<0.01	<0.01	0.24		4.6E-03	0.007		
	2/25/2016	8270C		<0.01		<0.02		<0.01		0.01					<0.01	<0.01	0.15	0.24	<0.01	<0.01	0.35		<0.01	0.01		
	11/3/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.16	0.29	<0.01	<0.01	0.37		<0.01	0.021		
	8/18/2015	8270C		<0.01		<0.02		<0.01		0.01					<0.01	<0.01	0.18	0.3	<0.01	<0.01	0.4		<0.01	<0.01		
	6/8/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.14	0.21	<0.01	<0.01	0.31		<0.01	0.013		
	3/12/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.17	0.27	<0.01	<0.01	0.34		<0.01	0.015		
	11/18/2014	8270C		<0.01		<0.02		0.011		<0.01					<0.01	<0.01	0.11	0.033	<0.01	<0.01	0.054		<0.01	<0.01		
	9/24/2014	8270C		<0.01		<0.02		<0.01		0.01					<0.01	<0.01	0.18	0.29	<0.02	<0.01	0.31		<0.01	0.011		
	4/9/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.16	0.25	<0.02	<0.01	0.32		<0.01	0.012		

8.17.4 MKTF WELLS

Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS			Acenaphthene (mg/L)	Aniline (mg/L)	Benz(a) anthracene (mg/L)	Benzoic Acid (mg/L)	Benzyl alcohol (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Butyl benzyl phthalate (mg/L)	Carbazole (mg/L)	Di-n-octyl phthalate (mg/L)	Dibenzo furan (mg/L)	1,4-Dichlorob enzene (mg/L)	Dimethyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluorene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphthalene (mg/L)	Penta chloro phenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.005	NE	NE
40 CFR 141.62 MCL			NE	NE	NE	NE	NE	0.006	NE	NE	NE	NE	0.075	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NMED Tap Water (JUL 2015)			0.535	NE	0.000343	NE	NE	0.0556	NE	NE	NE	NE	0.302	NE	0.354	0.288	NE	NE	NE	NE	NE	0.00165	0.0004	0.17	5.76	0.117	NE
EPA RSL for Tap Water (MAY 2016)			0.53	0.013	0.000012	75	2	0.0056	0.0016	NE	0.2	0.0079	0.00048	NE	0.36	0.29	1.1E-03	0.036	0.93	0.93	1.7E-04	4.1E-05	NE	5.8	0.12	0.02
Well ID	DATE SAMPLED	METHOD																								
MKTF-20	11/3/2016	8270C		<0.05		0.061		0.035	0.014	<0.05	0.036			<0.05	0.43	<0.05	0.05	0.038	0.16	0.089	0.11	<0.1	<0.05	0.13		<0.05
	9/12/2016	8270C		<0.1		0.13		0.036		<0.1	0.038			0.029	0.39	<0.1	0.048	0.043	0.19	0.061	0.11	0.025	<0.1	0.061		<0.1
	6/9/2016	8270C		<0.05		<0.1		0.018		<0.05	0.025				0.23	<0.05	0.051	0.029	0.25	0.28	0.077		<0.05	0.24		<0.05
	3/1/2016	8270C		<0.01		<0.02		<0.01		<0.01					0.28	<0.01	0.036	0.023	0.096	<0.01	0.05		<0.01	0.011		<0.01
	6/8/2015	8270C		<0.01		<0.02		<0.01		<0.01					0.23	<0.01	0.037	0.036	0.049	0.13	0.056		<0.01	0.05		<0.01
	3/16/2015	8270C		<0.01		<0.02		<0.01		<0.01					0.32	<0.01	0.045	0.037	0.21	0.36	0.13		<0.01	0.21		0.016
	11/18/2014	8270C		<0.01		<0.02		0.014		<0.01					0.61	<0.01	0.11	0.066	0.12	0.051	0.1		<0.01	0.037		
	4/11/2014	8270C		0.022		<0.026		<0.013		<0.013					0.13	<0.013	0.088	0.12	0.12	0.076	0.25		<0.013	<0.013		
MKTF-21	11/3/2016	8270c		<0.1		0.11		0.064	0.027	<0.1	0.081			<0.1	0.03	<0.1	<0.1	<0.1	<0.1	0.03	0.049	<0.2	<0.1	0.03		
	9/12/2016	8270C		<0.1		0.063		0.056		<0.1	0.035			0.029	<0.1	<0.1	<0.1	<0.1	<0.1	0.42	<0.1	0.024	<0.1	0.08		
	3/1/2016	8270C		<0.01		0.036		<0.01		<0.01					5.7E-03	<0.01	<0.01	<0.01	<0.01	0.12	<0.01		<0.01	0.037		
	6/10/2015	8270C		<0.01		<0.02		<0.01		<0.01					0.011	<0.01	<0.01	<0.01	<0.01	0.11	<0.01		<0.01	0.035		
	3/16/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	0.069	<0.01		<0.01	0.038		
	4/11/2014	8270C		<0.012		<0.025		<0.012		<0.012					0.1	<0.012	0.069	0.11	0.14	0.1	0.27		<0.012	0.013		
MKTF-22	11/1/2016	8270C	3.8E-03	<0.01		0.018		6.8E-03		4.9E-03	7.3E-03			<0.01	3.7E-03	5.7E-03	0.07	0.013	<0.01	<0.01	0.052		<0.01	0.023		
	9/10/2016	8270C	<0.01	<0.01		0.011		0.003		2.4E-03	3.4E-03			0.003	<0.01	<0.01	0.039	0.005	<0.01	<0.01	0.023		<0.01	7.7E-03		
	6/10/2016	8270C	3.9E-03	<0.01		<0.02		4.6E-03		5.3E-03	9.1E-03				<0.01	<0.01	0.067	0.011	<0.01	<0.01	0.046		<0.01	0.019		
	2/25/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.042	<0.01	<0.01	<0.01	0.029		<0.01	<0.01		
	11/9/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.04	<0.01	<0.01	<0.01	0.011		<0.01	0.01		
	8/20/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.018	<0.01	<0.01	<0.01	<0.01		<0.01	0.014		
	6/9/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.062	<0.01	<0.01	<0.01	0.013		<0.01	0.018		
	3/12/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.066	<0.01	<0.01	<0.01	0.016		<0.01	0.014		
	11/17/2014	8270C		<0.01		<0.02		0.013		<0.01					<0.01	<0.01	0.045	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	4/10/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.02	<0.01	0.045	<0.01	<0.02	<0.01	0.013		<0.01	<0.01		
MKTF-23	6/10/2016	8270C		<0.05		<0.1		<0.05		<0.05	0.03				<0.05	0.38	7.8	5.6	<0.05	<0.05	2.3		0.72	<0.05		
	2/25/2016	8270C		<0.01		<0.02		<0.01		<0.01					0.11	0.011	0.22	0.23	0.037	0.024	0.23		0.029	0.017		
	11/9/2015	8270C		<0.01		<0.02		<0.01		<0.01					0.065	0.013	0.17	0.21	0.06	0.054	0.23		0.022	0.036		
	8/21/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.14	0.19	0.061	0.047	0.27		0.016	<0.01		
	6/9/2015	8270C		<0.01		<0.02		<0.01		<0.01					0.12	<0.01	0.11	0.14	0.071	0.064	0.2		<0.01	0.034		
	3/12/2015	8270C		<0.01		<0.02		<0.01		<0.01					0.094	<0.01	0.079	0.082	0.042	0.063	0.15		<0.01	0.021		
	11/17/2014	8270C		<0.01		<0.02		0.014		<0.01					0.031	<0.01	0.084	0.092	0.058	0.053	0.13		<0.01	0.027		
	9/23/2014	8270C		<0.01		<0.02		<0.01		<0.01					0.027	<0.01	0.075	0.079	0.034	0.025	0.13		<0.01	0.022		
MKTF-24	10/28/2016	8270C		<0.01		0.013		6.6E-03	2.7E-03	<0.01	6.9E-03			<0.01	<0.01	<0.01	7.3E-03	<0.01	<0.01	<0.01	5.5E-03		<0.01	<0.01		
	9/7/2016	8270C		<0.01		0.01		0.004		<0.01	4.9E-03			7.3E-03	<0.01	<0.01	4.2E-03	<0.01	<0.01	<0.01	2.9E-03		<0.01	<0.01		
	6/8/2016	8270C		<0.01		<0.02		3.4E-03		<0.01	0.005				<0.01	<0.01	3.4E-03	<0.01	<0.01	4.5E-03	<0.01		<0.01	5.6E-03		
	2/22/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	0.012	7.2E-03		<0.01	<0.01		
	11/4/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	8/20/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/10/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	3/11/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/14/2014	8270C		<0.01		<0.02		0.011		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	9/24/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	4/8/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
MTKF-25	11/1/2016	8270C		<0.01		0.011		7.2E-03	2.7E-03	<0.01	8.4E-03			<0.01	<0.01	<0.01	5.5E-03	<0.01	<0.01	<0.01	3.7E-03		<0.01	6.8E-03		
	9/9/2016	8270C		<0.01		9.9E-03		3.8E-03		<0.01	3.8E-03			3.1E-03	<0.01	<0.01	4.1E-03	<0.01	<0.01	<0.01	<0.01		<0.01	0.012		
	6/9/2016	8270C		<0.01		<0.02		3.7E-03		<0.01	5.4E-03				<0.01	<0.01	3.8E-03	<0.01	<0.01	<0.01	3.7E-03		<0.01	7.9E-03		
	2/23/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/5/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	8/21/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/10/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	3/11/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.017		<0.01	<0.01		
	11/14/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	9/23/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	4/8/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	0.021		<0.01	0.013		

8.17.4 MKTF WELLS

Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS			Acenaphthene (mg/L)	Aniline (mg/L)	Benz(a) anthracene (mg/L)	Benzoic Acid (mg/L)	Benzyl alcohol (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Butyl benzyl phthalate (mg/L)	Carbazole (mg/L)	Di-n-octyl phthalate (mg/L)	Dibenzo furan (mg/L)	1,4-Dichlorob enzene (mg/L)	Dimethyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluorene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphthalene (mg/L)	Penta chloro phenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.005	NE	NE
40 CFR 141.62 MCL			NE	NE	NE	NE	NE	0.006	NE	NE	NE	NE	0.075	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NMED Tap Water (JUL 2015)			0.535	NE	0.000343	NE	NE	0.0556	NE	NE	NE	NE	0.302	NE	0.354	0.288	NE	NE	NE	NE	0.00165	0.0004	0.17	5.76	0.117	NE
EPA RSL for Tap Water (MAY 2016)			0.53	0.013	0.000012	75	2	0.0056	0.0016	NE	0.2	0.0079	0.00048	NE	0.36	0.29	1.1E-03	0.036	0.93	0.93	1.7E-04	4.1E-05	NE	5.8	0.12	0.02
Well ID	DATE SAMPLED	METHOD																								
MKTF-26	6/9/2016	8270C		<0.01		<0.02		3.9E-03		<0.01	5.2E-03			0.003	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	2/22/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/4/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	8/20/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	0.018		
	6/10/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	0.014		
	3/11/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	0.014		
	11/14/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	9/24/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	0.013		
	4/8/2014	8270C		<0.012		<0.023		<0.012		<0.012					<0.012	<0.012	<0.012	<0.012	<0.023	<0.012	<0.012		<0.012	<0.012		
MKTF-27	10/28/2016	8270C		<0.01		8.4E-03		6.9E-03	5.7E-03	<0.01	6.7E-03			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	9/7/2016	8270c		<0.01		9.8E-03		3.4E-03		<0.01	3.4E-03			6.4E-03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/8/2016	8270C		<0.01		<0.02		3.9E-03		<0.01	5.3E-03			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	2/22/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/4/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	8/20/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	6/9/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	3/11/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	11/14/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	9/24/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	4/8/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
MKTF-28	10/28/2016	8270C		<0.01		0.013		0.009	2.7E-03	<0.01	6.8E-03			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	9/8/2016	8270C		<0.01		7.3E-03		3.3E-03		<0.01				2.9E-03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/8/2016	8270C		<0.01		<0.02		4.1E-03		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	2/23/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/4/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	8/20/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	6/9/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	3/11/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	11/14/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	9/24/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
MKTF-29	10/28/2016	8270c		<0.01	<0.01	0.015		0.007		<0.01	6.8E-03			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	9/7/2016	8270C		<0.01	2.9E-03	0.011		3.7E-03		<0.01	3.7E-03			6.5E-03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/9/2016	8270C		<0.01		<0.02		4.2E-03		<0.01	4.9E-03				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	2/23/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/4/2015	8270c		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	8/20/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	6/10/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	3/11/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	9/24/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	4/9/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
MKTF-30	10/28/2016	8270C		<0.01		8.6E-03		6.9E-03	2.7E-03	<0.01	6.9E-03			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	9/7/2016	8270C		<0.01		7.2E-03		3.4E-03		<0.01	3.5E-03			5.9E-03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/9/2016	8270C		<0.01		<0.02		3.9E-03		<0.01	5.5E-03				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	2/23/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/4/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	8/20/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	6/10/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	3/11/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	11/17/2014	8270C		<0.01		<0.02		0.011		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	9/24/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	4/9/2014	8270C		<0.011		<0.021		<0.011		<0.011					<0.011	<0.011	<0.011	<0.011	<0.021	<0.011	<0.011		<0.011	<0.011		

8.17.4 MKTF WELLS

Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS			Acenaphthene (mg/L)	Aniline (mg/L)	Benz(a) anthracene (mg/L)	Benzoic Acid (mg/L)	Benzyl alcohol (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Butyl benzyl phthalate (mg/L)	Carbazole (mg/L)	Di-n-octyl phthalate (mg/L)	Dibenzo furan (mg/L)	1,4-Dichlorob enzene (mg/L)	Dimethyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluorene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphthalene (mg/L)	Penta chloro phenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.005	NE	NE
40 CFR 141.62 MCL			NE	NE	NE	NE	NE	0.006	NE	NE	NE	NE	0.075	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NMED Tap Water (JUL 2015)			0.535	NE	0.000343	NE	NE	0.0556	NE	NE	NE	NE	0.302	NE	0.354	0.288	NE	NE	NE	NE	0.00165	0.0004	0.17	5.76	0.117	NE
EPA RSL for Tap Water (MAY 2016)			0.53	0.013	0.000012	75	2	0.0056	0.0016	NE	0.2	0.0079	0.00048	NE	0.36	0.29	1.1E-03	0.036	0.93	0.93	1.7E-04	4.1E-05	NE	5.8	0.12	0.02
Well ID	DATE SAMPLED	METHOD																								
MKTF-31	10/31/2016	8270C		<0.01		9.3E-03		6.8E-03	2.9E-03	<0.01	8.4E-03			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	9/8/2016	8270C		<0.01		8.5E-03		3.2E-03		<0.01	<0.01			2.9E-03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.02		
	6/9/2016	8270C		<0.01		<0.02		3.9E-03		<0.01	5.1E-03				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.02		
	2/23/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/4/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	8/21/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/10/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	3/11/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/17/2014	8270C		<0.01		<0.02		0.013		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	9/23/2014	8270C		<0.012		<0.025		<0.012		<0.012					<0.012	<0.012	<0.012	<0.012	<0.025	<0.012	<0.012		<0.012	<0.012		
	4/8/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
MKTF-32	10/31/2016	8270C		<0.01		8.7E-03		6.8E-03	2.8E-03	<0.01	7.6E-03			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	9/9/2016	8270C		<0.01		0.012		4.6E-03		<0.01	3.8E-03			0.003	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/9/2016	8270C		<0.01		<0.02		5.6E-03		<0.01	5.4E-03				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	2/24/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/5/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	8/21/2015	87270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/9/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	3/12/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/17/2014	8270C		<0.01		<0.02		0.012		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	9/23/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	4/9/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
MKTF-33	11/1/2016	8270C		<0.01		0.013		6.6E-03	2.7E-03	<0.01	7.8E-03			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	9/10/2016	8270C		<0.01		7.1E-03		3.6E-03		<0.01	3.5E-03			2.9E-03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/10/2016	8270C		<0.01		<0.02		3.2E-03		<0.01	4.9E-03				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	2/25/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/9/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	8/21/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/9/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	3/12/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/17/2014	8270C		<0.01		<0.02		0.012		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	9/23/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	4/10/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
MKTF-34	11/8/2016	8270C		<0.01		8.3E-03		6.4E-03		<0.01	6.7E-03				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	9/13/2016	8270C		<0.01		8.4E-03		3.3E-03		<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/10/2016	8270C		<0.01		<0.02		3.4E-03		<0.01	5.4E-03				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	2/25/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/3/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	8/18/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/8/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	3/12/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/17/2014	8270C		<0.01		<0.02		0.014		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	9/24/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	4/9/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.025	<0.01	<0.01		<0.01	<0.01		
MKTF-35	11/3/2016	8270C		<0.05		0.055		0.034	0.014	<0.05	0.034				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		
	9/13/2016	8270c		<0.01		0.005		<0.01		<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/10/2016	8270C		<0.01		<0.02		3.2E-03		<0.01	5.9E-03				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	2/26/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/3/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	8/18/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/4/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	3/17/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.028		<0.01	<0.01		
	11/21/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.034	0.045	<0.01	<0.01	0.036		<0.01	<0.01		

8.17.4 MKTF WELLS

Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS			Acenaphthene (mg/L)	Aniline (mg/L)	Benz(a) anthracene (mg/L)	Benzoic Acid (mg/L)	Benzyl alcohol (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Butyl benzyl phthalate (mg/L)	Carbazole (mg/L)	Di-n-octyl phthalate (mg/L)	Dibenzo furan (mg/L)	1,4-Dichlorob enzene (mg/L)	Dimethyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluorene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphthalene (mg/L)	Penta chloro phenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.005	NE	NE
40 CFR 141.62 MCL			NE	NE	NE	NE	NE	0.006	NE	NE	NE	NE	0.075	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NMED Tap Water (JUL 2015)			0.535	NE	0.000343	NE	NE	0.0556	NE	NE	NE	NE	0.302	NE	0.354	0.288	NE	NE	NE	NE	0.00165	0.0004	0.17	5.76	0.117	NE
EPA RSL for Tap Water (MAY 2016)			0.53	0.013	0.000012	75	2	0.0056	0.0016	NE	0.2	0.0079	0.00048	NE	0.36	0.29	1.1E-03	0.036	0.93	0.93	1.7E-04	4.1E-05	NE	5.8	0.12	0.02
Well ID	DATE SAMPLED	METHOD																								
MKTF-36	11/8/2016	8270C	5.1E-03	<0.01		<0.02		7.1E-03	2.7E-03	0.006	0.008				<0.01	0.008	0.15	0.23	<0.01	<0.01	0.27		4.4E-03	0.028		
	8/18/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	0.012	0.34	0.51	<0.01	<0.01	0.52		<0.01	0.048		
	6/4/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	0.013	0.33	0.51	<0.01	<0.01	0.49		<0.01	0.056		
	3/17/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	0.01	0.24	0.39	<0.01	<0.01	0.47		<0.01	0.044		
	11/21/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.16	0.23	<0.01	<0.01	0.28		<0.01	0.015		
MKTF-37	11/3/2016	8270C		<0.01		0.019		8.4E-03		<0.01	6.9E-03		3.2E-03		<0.01	<0.01	0.051	0.064	0.012	3.5E-03	0.2		<0.01	7.4E-03		
	8/19/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.83	1.4	<0.01	<0.01	2.7		<0.01	<0.01		
	6/4/2015	8270C		<0.01		<0.01		<0.01		<0.01					<0.01	<0.01	0.074	0.11	0.028	<0.01	0.23		<0.01	<0.01		
	3/17/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.072	0.096	0.033	<0.01	0.16		<0.01	<0.01		
	11/21/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	0.05	0.056	<0.01	<0.01	0.27		<0.01	<0.01		
MKTF-38	11/1/2016	8270C		<0.01		8.7E-03		6.4E-03	2.7E-03	<0.01	7.8E-03				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	9/13/2016	8270C		<0.01		0.0046		3.1E-03		<0.01	<0.01				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/8/2016	8270C		<0.01		<0.02		3.3E-03		<0.01	0.005				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	2/29/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/9/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	8/24/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/10/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	3/16/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/21/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
MKTF-39	11/1/2016	8270C	2.6E-03	<0.01		0.016		6.7E-03		0.016	0.007	3.2E-03		<0.01	<0.01	8.6E-03	0.098	0.039	<0.01	<0.01	0.054		7.4E-03	<0.01	4.8E-03	
	9/13/2016	8270C		<0.01		0.012		2.6E-03		0.016	<0.01	2.6E-03		<0.01	<0.01	7.8E-03	0.077	0.028	<0.01	<0.01	0.044		6.7E-03	<0.01		
	6/8/2016	8270C		<0.05		<0.1		0.019		0.026	0.025			0.014	<0.05	<0.05	0.11	0.042	<0.05	<0.05	0.049		0.013	<0.05		
	3/3/2016	8270C		<0.01		<0.02		<0.01		0.028					<0.01	0.01	0.11	0.037	<0.01	<0.01	0.045		7.9E-04	<0.01		
	11/9/2015	8270C		<0.01		<0.02		<0.01		0.021					<0.01	<0.01	0.089	0.032	<0.01	<0.01	0.062		<0.01	<0.01		
	8/23/2015	8270C		<0.01		<0.02		<0.01		0.025					<0.01	<0.01	0.084	0.021	<0.01	<0.01	0.051		<0.01	<0.01		
	6/10/2015	8270C		<0.01		<0.02		<0.01		0.026					<0.01	0.013	0.14	0.043	<0.01	<0.01	0.064		0.014	<0.01		
	3/16/2015	8270C		<0.01		<0.02		<0.01		0.011					<0.01	<0.01	0.056	<0.01	<0.01	<0.01	0.02		<0.01	<0.01		
	11/18/2014	8270C		<0.01		<0.02		0.012		0.021					<0.01	<0.01	0.079	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
MKTF-40	10/31/2016	8270C		<0.01		8.5E-03		6.6E-03	2.8E-03	<0.01	8.4E-03			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	9/8/2016	8270C		<0.01		8.6E-03		3.3E-03		<0.01	3.3E-03			0.003	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.1	<0.01		
	6/9/2016	8270C		<0.01		<0.02		0.004		<0.01	4.9E-03				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.02		
	2/23/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/4/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	8/21/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/10/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	3/11/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/21/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
MKTF-41	10/31/2016	8270C		<001		0.013		6.5E-03		<0.01	6.7E-03			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	9/9/2016	8270C		<0.01		9.8E-03		3.1E-03		<0.01	3.5E-03			0.003	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/9/2016	8270C		<0.05		<0.1		0.024		<0.05	0.028				<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		
	2/24/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/5/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	8/21/2015	8270C		<0.014		<0.029		<0.014		<0.014					<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014		<0.014	<0.014		
	6/9/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	3/12/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/18/2014	8270C		<0.01		<0.02		0.014		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
MKTF-42	10/31/2016	8270C		<0.1		0.056		0.033		<0.1	0.037				<0.05	<0.05	0.19	<0.05	<0.05	<0.05	0.016		<0.05	<0.05		
	9/9/2016	8270C		<0.1		0.072		<0.1		<0.1	<0.1				<0.1	<0.1	0.17	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1		
	6/9/2016	8270C		<0.05		<0.1		0.021		<0.05					<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		<0.05	<0.05		
	2/24/2016	8270C		<0.1		<0.2		<0.1		<0.1					<0.1	<0.1	0.27	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1		
	11/5/2015	8270C		<0.1		<0.2		<0.1		<0.1					<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1		
	8/21/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/9/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	3/11/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/18/2014	8270C		<0.01		<0.02		0.013		<0.01					<0.01	<0.01	0.072	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		

8.17.4 MKTF WELLS

Semi-Volatile Organic Compound Analytical Result Summary

STANDARDS			Acenaphthene (mg/L)	Aniline (mg/L)	Benz(a) anthracene (mg/L)	Benzoic Acid (mg/L)	Benzyl alcohol (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Butyl benzyl phthalate (mg/L)	Carbazole (mg/L)	Di-n-octyl phthalate (mg/L)	Dibenzo furan (mg/L)	1,4-Dichlorob enzene (mg/L)	Dimethyl phthalate (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluorene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphthalene (mg/L)	Penta chloro phenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	**0.005**	NE	NE
40 CFR 141.62 MCL			NE	NE	NE	NE	NE	**0.006**	NE	NE	NE	NE	**0.075**	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
NMED Tap Water (JUL 2015)			**0.535**	NE	**0.000343**	NE	NE	0.0556	NE	NE	NE	NE	0.302	NE	**0.354**	**0.288**	NE	NE	NE	NE	**0.00165**	**0.0004**	**0.17**	5.76	**0.117**	NE
EPA RSL for Tap Water (MAY 2016)			0.53	**0.013**	0.000012	**75**	**2**	0.0056	**0.0016**	NE	**0.2**	**0.0079**	0.00048	NE	0.36	0.29	**1.1E-03**	**0.036**	**0.93**	**0.93**	1.7E-04	4.1E-05	NE	5.8	0.12	**0.02**
Well ID	**DATE SAMPLED**	**METHOD**																								
MKTF-43	10/31/2016	8270C		<0.01		8.3E-03		**6.3E-03**	**2.8E-03**	<0.01	8.3E-03			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	9/9/2016	8270C		<0.01		0.017		4.1E-03		<0.01	3.4E-03			0.003	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/9/2016	8270C		<0.01		<0.02		0.004		<0.01	5.6E-03			0.003	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	2/24/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/5/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	8/21/2015	8270C		<0.01		<0.025		<0.01		<0.01					<0.012	<0.01	<0.01	<0.01	<0.012	<0.012	<0.01		<0.01	<0.012		
	6/10/2015	8270C		<0.012		<0.024		<0.012		<0.012					<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.12		<0.12	<0.012		
	3/11/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/18/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
MKTF-44	11/1/2016	8270C		<0.01		0.11		**0.066**	**0.027**	<0.01	0.075			<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	9/9/2016	8270C		<0.01		6.5E-03		3.5E-03		<0.01				0.003	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/9/2016	8270C		<0.01		<0.02		<0.01		<0.01	5.1E-03				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	2/24/2016	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	11/9/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	8/17/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	6/10/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
	3/12/2015	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		
	11/21/2014	8270C		<0.01		<0.02		<0.01		<0.01					<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01		<0.01	<0.01		

DEFINITIONS
NE = Not established
NA = Not analyzed
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

8.17.5 MKTF WELLS
Volatile Organic Compounds Analytical Results

			PARAMETERS																																
		STANDARDS	1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	1,2-Dichloro ethane (EDC) (mg/L)	1,2-Dibro moethane (EDB) (mg/L)	Naphtha-lene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	Bromo methane (mg/L)	(Methyl ethyl ketone) 2-Butanone (mg/L)	Chloro benzene (mg/L)	Chloroethane (mg/L)	Chloro-form (mg/L)	Chloro-methane (mg/L)	cis-1,2-DCE (mg/L)	1,4-Dichloro benzene (mg/L)	1,1-Dichloro ethane (mg/L)	1,1-Dichloro ethene (mg/L)	1,2-Dichloro propane (mg/L)	2-Hexanone (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	4-Methyl-2-pentanone (mg/L)	Methylene Chloride (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)	Styrene (mg/L)	tert-Butyl benzene (mg/L)	Tetrachloro ethene (PCE) (mg/L)	1,2,4-Trichlorobe nzene (mg/L)	1,1,1-Trichloro ethane (mg/L)	1,1,2-Trichloro ethane (mg/L)	Trichloro ethene (TCE) (mg/L)	Vinyl Chloride (mg/L)
		WQCC 20NMAC 6.2.3103	NE	NE	0.01	0.0001	NE	NE	NE	NE	NE	NE	NE	NE	0.1	NE	**0.005**	NE	**0.025**	**0.005**	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.02	NE	**0.06**	0.01	NE	**0.001**
		40 CFR 141.62 MCL	NE	NE	**0.005**	**0.00005**	NE	NE	NE	NE	NE	NE	NE	NE	**0.08**	NE	0.07	**0.075**	NE	0.007	**0.005**	NE	NE	NE	NE	**0.005**	NE	NE	NE	**0.1**	NE	**0.005**	**0.07**	0.2	**0.005**	**0.005**	0.002
		NMED Tap Water (JUL 2015)	NE	NE	0.0275	0.0000746	**0.00165**	NE	NE	**14.1**	**0.00754**	**5.56**	**0.0776**	NE	0.00229	**0.0203**	0.0365	0.00481	0.0275	0.284	0.00437	NE	**0.447**	NE	**1.24**	0.106	NE	NE	NE	1.21	NE	NE	0.00398	8.0	0.000415	0.00282	0.000201
		EPA RSL for Tap Water (MAY 2016)	**0.015**	**0.12**	0.017	0.0000075	1.7E-04	**1.1E-03**	**0.036**	14	0.0075	5.6	0.078	NE	0.00022	0.19	3.6E-02	4.8E-04	2.8E-03	0.28	0.001	**0.038**	NE	NE	6.3	0.011	**1.0**	**0.66**	**2.0**	1.2	**0.69**	0.011	0.0012	8.0	0.00028	0.00049	0.000019
Well ID	DATE SAMPLED	METHOD																																			
MKTF-1	9/7/2016	8260B/8011/504.1/EDB	**0.039**	<0.01	3.9E-03	**0.017**	**0.01**	**0.012**	<0.04	0.01		3.6E-03					**0.015**		**0.048**	**0.019**			0.012	<0.01	9.8E-04	<0.003	<0.03	0.025	3.2E-03	5.9E-04		2.8E-04		6.1E-04	<0.001	2.5E-03	**0.0011**
	2/24/2016	8260B	**0.66**	0.03	**9.1E-03**	<0.05	**0.11**	**0.067**	0.035	0.16		<0.5					**0.026**		**0.06**	**0.025**			0.046	<0.05		**0.016**	0.022	0.16	8.2E-03	<0.5		<0.05		<0.05	<0.05	<0.05	**0.022**
	11/4/2015	8260B	**0.71**	0.054	<0.005		**0.091**	**0.062**	0.032	<0.05		<0.05					**0.037**		**0.074**	**0.046**			0.047	<0.005			<0.015	0.1	8.4E-03			<0.005		<0.005	<0.005	<0.005	**0.012**
	8/21/2015	8260B	**0.65**	0.057	<0.005		**0.081**	**0.044**	<0.02	<0.05		<0.05					**0.042**		**0.065**	**0.051**			0.045	<0.005			0.019	0.13	0.011			<0.005		<0.005	<0.005	<0.005	<0.005
	6/9/2015	8260B	**0.67**	**0.13**	<0.05		<0.1	<0.2	<0.2	<0.5		<0.5					<0.05		**0.056**	<0.05			<0.05	<0.05			<0.15	0.11	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	3/11/2015	8260B	**0.59**	0.1	<0.05		<0.1	<0.2	<0.2	<0.5		<0.5					<0.05		**0.066**	**0.058**			<0.05	<0.05			<0.15	0.11	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	6/6/2014	8260B	**1.1**	**0.27**	<0.05		**0.3**	<0.2	<0.2	<0.5		<0.5					<0.05		**0.094**	<0.05			<0.05	<0.05			<0.15	0.14	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
MKTF-2	10/28/2016	8260B/8011/504.1/EDB	**0.02**	<0.01	**7.2E-03**	4.4E-05	1.6E-03	**4.5E-03**	<0.04	<0.1		<0.1					**0.017**		**0.062**	**0.037**		<0.1	6.2E-03	<0.01	<0.01	<0.03	<0.03	0.012	1.8E-03	<0.01		<0.01		1.0E-03	<0.01	3.5E-03	<0.01
	9/7/2016	8260B	**0.039**	<0.01	3.9E-03	<0.001	**0.01**	**0.012**	<0.04	0.01		3.6E-03					**0.015**		**0.048**	**0.019**		<0.1	1.2E-02	<0.01	9.8E-04	<0.003	<0.03	0.025	3.2E-03	5.9E-04		2.8E-04		6.1E-04	<0.001	2.5E-03	**1.1E-03**
	6/10/2016	8260B	**0.13**	9.7E-03	<0.005		**0.025**	**0.015**	2.8E-03	<0.05		<0.05					**0.012**		**0.046**	**0.018**		<0.05	1.3E-02	2.E-03		<0.015	5.E-03	0.037	2.4E-03			<0.005		<0.005	<0.005	2.9E-03	<0.005
	2/24/2016	8260B	1.3E-03	<0.005	**0.015**		<0.01	<0.02	<0.02	0.0046		<0.05					**5.8E-03**		**0.058**	**0.11**		1.8E-03	4.0E-03	<0.005		1.7E-03	<0.015	<0.005	<0.005			<0.005		1.7E-03	1.9E-03	**7.3E-03**	**1.6E-03**
	11/4/2015	8260B	**8.7E-03**	<0.001	4.8E-03		**2.4E-03**	**4.2E-03**	<0.004	<0.01		<0.01					**0.013**		**0.066**	**0.03**			9.7E-03	<0.001			<0.003	0.013	1.6E-03			<0.001		1.9E-03	<0.001	3.5E-03	**1.9E-03**
	8/21/2015	8260B	**1.7E-03**	<0.001	**9.1E-03**		**3.6E-03**	<0.004	<0.004	<0.01		<0.01					**0.01**		**0.062**	**0.059**			7.2E-03	<0.001			<0.003	5.6E-03	1.3E-03			<0.001		<0.001	1.2E-03	**5.3E-03**	**1.3E-03**
	6/9/2015	8260B	**0.04**	<0.001	4.1E-03		**6.6E-03**	**5.8E-03**	<0.004	<0.01		<0.01					**9.9E-03**		**0.054**	**0.026**			9.7E-03	<0.001			3.2E-03	0.029	1.7E-03			<0.001		<0.001	<0.001	2.5E-03	**1.4E-03**
	3/11/2015	8260B	5.1E-03	<0.002	4.5E-03		<0.004	<0.008	<0.008	<0.02		<0.02					**9.3E-03**		**0.05**	**0.031**			<0.002	<0.002			<0.006	<0.002	<0.002			<0.002		2.3E-03	<0.002	2.4E-03	<0.002
	11/14/2014	8260B	2.1E-03	<0.001	0.016		<0.002	<0.004	<0.004	<0.01		<0.01					**0.011**		**0.075**	**0.078**			1.6E-03	<0.001			<0.003	1.2E-03	<0.001			<0.001		3.6E-03	2.4E-03	**7.1E-03**	**9.7E-03**
	9/18/2014	8260B	**0.14**	<0.005	**5.1E-03**		**0.017**	**0.037**	<0.02	<0.05		<0.05					**0.03**		**0.098**	**0.024**			0.03	<0.005			<0.015	0.13	6.8E-03			<0.005		<0.005	<0.005	<0.005	<0.005
	6/6/2014	8260B	**0.031**	1.9E-03	**8.1E-03**		**4.9E-03**	<0.004	<0.004	0.012		<0.01					**0.01**		**0.07**	**0.041**			3.1E-03	<0.001			<0.003	0.009	<0.001			<0.001		3.5E-03	1.2E-03	4.1E-03	0.001
	4/8/2014	8260B	3.5E-03	<0.002	**6.8E-03**		<0.004	<0.008	<0.008	<0.02		<0.02					**5.2E-03**		**0.041**	**0.034**			<0.002	<0.002			<0.006	<0.002	<0.002			<0.002		2.2E-03	<0.002	3.4E-03	<0.002
MKTF-4	11/2/2016	8260B	**0.37**	0.063	2.3E-03	<0.005	**0.3**	**0.19**	**0.16**	<0.05		<0.05					**5.5E-03**		0.01	**0.014**		<0.05	0.024	3.7E-03			6.1E-03	0.043	4.5E-03	1.5E-03		<0.01		<0.005	<0.005	<0.005	<0.005
	9/11/2016	8260B	**0.43**	0.069	2.6E-03	<0.005	**0.39**	**0.22**	**0.22**	<0.05		<0.05					**0.01**		6.2E-03	**0.012**		0.024	3.3E-03	<0.05			5.5E-03	0.054	3.8E-03	5.8E-04		<0.005		<0.005	<0.005	<0.005	<0.005
	6/9/2016	8260B	**0.37**	0.057	<0.01		**0.28**	**0.17**	**0.14**	<0.1		<0.1					**7.7E-03**		0.012	**0.021**			0.021	4.3E-03			8.7E-03	0.045	4.6E-03	<0.01		<0.01		<0.01	<0.01	<0.01	<0.01
	2/29/2016	8260B	**0.37**	0.058	1.6E-03		**0.34**	**0.18**	**0.18**	0.027		0.011					**5.5E-03**		5.9E-03	**0.014**			0.025	3.8E-03			6.4E-03	0.052	4.1E-03	6.7E-03		<0.005		<0.005	<0.005	<0.005	<0.005
	11/3/2015	8260B	**0.43**	0.053	<0.01		**0.34**	**0.21**	**0.18**	<0.1		<0.1					<0.01		<0.01	**0.02**			0.033	<0.01			<0.03	0.067	<0.01			<0.01		<0.01	<0.01	<0.01	<0.01
	8/18/2015	8260B	**0.27**	0.026	<0.005		**0.24**	**0.14**	**0.085**	<0.05		<0.05					**0.013**		7.5E-03	**0.016**			0.016	<0.005			<0.015	0.021	<0.005			<0.005		<0.005	<0.005	<0.005	<0.005
	6/4/2015	8260B	**0.27**	0.023	<0.01		**0.22**	**0.14**	**0.086**	<0.1		<0.1					<0.01		<0.01	**0.022**			0.021	<0.01			<0.03	0.037	<0.01			<0.01		<0.01	<0.01	<0.01	<0.01
	3/16/2015	8260B	**0.2**	0.024	<0.01		**0.17**	**0.096**	**0.089**	<0.1		<0.1					<0.1		0.019	**0.032**			0.01	<0.01			<0.03	0.021	<0.01			<0.01		<0.01	<0.01	<0.01	<0.01
	11/13/2014	8260B	**0.2**	0.019	<0.01		**0.13**	**0.095**	**0.08**	<0.1		<0.1					**0.014**		**0.037**	**0.059**			0.016	<0.1			<0.03	0.029	<0.01			<0.01		<0.01	<0.01	<0.01	<0.01
	9/15/2014	8260B	**0.096**	0.012	<0.005		**0.092**	**0.041**	0.033	<0.05		<0.05					**0.014**		**0.037**	**0.074**			0.011	<0.005			<0.015	0.019	<0.005			<0.005		<0.005	<0.005	**5.1E-03**	<0.005
	6/4/2014	8260B	**0.27**	0.049	<0.01		**0.31**	**0.13**	**0.17**	<0.1		<0.1					<0.01		0.011	**0.021**			0.02	<0.01			<0.03	0.046	<0.01			<0.01		<0.01	<0.01	<0.01	<0.01
	4/11/2014	8260B	**0.51**	0.094	<0.02		**0.43**	**0.18**	**0.28**	<0.2		<0.2					<0.02		<0.02	**0.028**			0.028	<0.02			<0.06	0.077	<0.02			<0.02		<0.02	<0.02	<0.02	<0.02
MKTF-9	11/2/2016	8260B	**0.043**	<0.01	<0.01	<0.01	**0.029**	**0.064**	**5.6E-03**	<0.1		<0.1					**0.027**		**0.028**	**0.025**			0.014	2.9E-03			6.5E-03	0.023	5.0E-03			**5.3E-03**		0.042	<0.01	3.6E-03	<0.01
	9/11/2016	8260B	**0.053**	<0.01	<0.01	<0.01	**0.039**	**0.076**	**7.5E-03**	<0.1		<0.01					**0.032**		0.022	**0.024**			0.016	<0.01			0.005	0.027	3.1E-03			3.8E-03		0.037	<0.01	4.5E-03	<0.01
	6/9/2016	8206B	**0.058**	0.00075	<0.001	<0.001	**0.035**	**0.083**	0.011	0.013		5.6E-03					**0.03**		**0.032**	**0.032**			0.016	2.4E-03			6.8E-03	0.029	4.4E-03			**6.5E-03**		0.04	<0.001	**6.2E-03**	<0.001
	2/29/2016	8260B	**0.065**	<0.01	<0.01	<0.01	**0.041**	**0.082**	0.014	0.01		<0.1					**0.027**		**0.029**	**0.036**			0.018	2.4E-03			7.2E-03	0.032	4.0E-03			**5.2E-03**		0.046	<0.01	4.4E-03	<0.01
	11/3/2015	8260B	**0.073**	<0.001	<0.001		**0.041**	**0.081**	0.014	<0.01		<0.01					**0.03**		**0.027**	**0.033**			0.019	3.2E-03			0.009	0.038	6.4E-03			**6.7E-03**		0.048	<0.001	**6.1E-03**	<0.001
	8/18/2015	8260B	**0.05**	<0.005	<0.005		**0.029**	**0.08**	<0.02	<0.05		<0.05					**0.027**		**0.026**	**0.036**			0.017	<0.005			<0.015	0.029	5.4E-03			**6.2E-03**		0.052	<0.005	**5.9E-03**	<0.005
	6/4/2015	8260B	**0.033**	<0.005	<0.005		**0.015**	**0.051**	<0.02	<0.05		<0.05					**0.03**		**0.028**	**0.055**			0.015	<0.005			<0.015	0.022	<0.005			**7.8E-03**		**0.067**	<0.005	**7.6E-03**	<0.005
	3/16/2015	8260B	**0.018**	<0.005	<0.005		**0.011**	**0.03**	<0.02	<0.05		<0.05					**0.036**		**0.034**	**0.074**			7.4E-03	<0.005			<0.015	0.013	<0.005			**7.1E-03**		**0.13**	<0.005	**0.009**	<0.005
	11/14/2014	8260B	**0.087**	<0.01	<0.01		**0.043**	**0.11**	<0.04	<0.1		<0.1					**0.024**		**0.035**	**0.068**			0.014	<0.01			<0.03	0.03	<0.01			<0.01		**0.096**	<0.01	**0.011**	<0.01
	9/18/2014	8260B	**0.038**	<0.01	<0.01		**0.03**	**0.042**	<0.04	<0.1		<0.1					**0.021**		**0.028**	**0.065**			<0.01	<0.01			<0.03	0.014	<0.01			<0.01		**0.11**	<0.01	<0.01	<0.01
	6/5/2014	8260B	**0.083**	<0.01	<0.1		**0.068**	**0.089**	<0.04	<0.1		<0.1					**0.014**		**0.026**	**0.041**			0.017	<0.01			<0.03	0.033	<0.01			<0.01		**0.065**	<0.01	<0.01	<0.01
	4/14/2014	8260B	**0.074**	<0.005	<0.005		**0.044**	**0.062**	<0.02	<0.05		<0.05					**0.012**		0.024	**0.046**			0.013	<0.005			<0.015	0.026	<0.005			<0.005		**0.072**	<0.005	**8.9E-03**	<0.005
MKTF-10	11/2/2016	8260B	**0.85**	**0.2**	<0.1	<0.1	**0.24**	**0.1**	**0.1**	<1.0		0.7		<0.2			**0.026**		<0.01	<0.01			0.049	<0.01	0.062	<0.3	0.032	0.13	<0.1			<0.1		<0.1	<0.1	<0.1	<0.1
	9/11/2016	8260B	**0.84**	**0.2**	<0.1	<0.1	**0.35**	**0.15**	**0.16**	<1.0		1.3		<0.2			**0.032**		<0.05	<0.05			0.042	<0.1	0.12	<0.3	<0.3	0.12	<0.1			<0.1		<0.1	<0.1	<0.1	<0.1
	6/9/2016	8260B	**0.9**	**0.2**	<0.02		**0.22**	**0.067**	**0.088**	0.29		0.7		0.039			**0.023**		**0.039**	**7.1E-03**			0.052	8.6E-03	0.072	<0.06	0.021	0.13	0.011			<0.02		<0.02	<0.02	<0.02	<0.02
	2/29/2016	8260B	**0.9**	**0.2**	<0.1		**0.21**	**0.074**	**0.087**	0.16		0.7					**0.031**		**0.07**	<0.1			0.034	<0.1		**0.025**	0.018	0.12	<0.1			<0.1		<0.1	<0.1	<0.1	<0.1
	11/3/2015	8260B	**0.85**	**0.21**	<0.05		**0.17**	<0.2	<0.2	<0.5		<0.5					**0.057**		**0.078**	<0.05			<0.05	<0.05			<0.15	0.12	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	8/18/2015	8260B	**0.88**	**0.22**	<0.05		**0.23**	<0.2	<0.2	0.52		1.6					<0.05		**0.067**	<0.05			0.054	<0.05			<0.15	0.14	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	6/4/2015	8260B	**0.79**	**0.21**	<0.05		**0.19**	<0.2	<0.2	<0.5		1.3					<0.05		**0.06**	<0.05			0.054	<0.05			<0.15	0.13	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	3/16/2015	8260B	**0.96**	**0.24**	<0.05		**0.2**	<0.2	<0.2	<0.5		<0.5					<0.05		**0.078**	<0.05			0.051	<0.05			<0.15	0.14	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	11/14/2014	8260B	**1.5**	**0.57**	<0.02		**0.36**	**0.24**	**0.38**	<0.2		<0.2					**0.066**		**0.039**	<0.02			0.12	0.034			0.084	0.36	0.04			<0.02		<0.02	<0.02	<0.2	<0.02
	9/18/2014	8260B	**0.5**	0.11	<0.05		**0.13**	<0.2	<0.2	<0.5		2.8					<0.05		**0.057**	<0.05			<0.05	<0.05			<0.15	0.068	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	6/6/2014	8260B	**0.27**	0.065	<0.01		**0.079**	<0.04	<0.04	0.21		1.8					**0.033**		**0.051**	<0.01			0.019	<0.01			<0.03	0.038	<0.01			<0.01		0.015	<0.01	<0.01	<0.01
	4/11/2014	8260B	**0.96**	**0.21**	<0.05		**0.2**	<0.2	<0.2	1.2		1.0					<0.05		<0.05	<0.05			<0.05	<0.05			<0.15	0.13	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
MKTF-11	11/2/2016	8260B	**0.25**	**0.049**	<0.05	<0.05	**0.048**	<0.2	**0.2**	<0.5		0.22		<0.1			<0.05		**0.057**	<0.05			0.021	<0.05	0.026	<0.15	0.017	0.056	0.017			<0.05		<0.05	<0.05	<0.05	**0.051**
	9/11/2016	8260B	**0.25**	0.045	<0.05	<0.05	**0.05**	**0.021**	0.014	<0.5		0.27		<0.1			<0.05		**0.053**	<0.05			0.019	<0.05		<0.15	<0.15	0.058	<0.05			<0.05		<0.05	<0.05	<0.05	**0.056**
	6/9/2016	8260B	**0.29**	0.052	<0.01	<0.01	**0.053**	**0.019**	0.016	0.2		0.17		0.024			<0.01		**0.064**	<0.01			0.022	3.5E-03		<0.03	9.5E-03	0.058	8.9E-03			<0.01		<0.01	<0.01	<0.01	**0.062**
	2/29/2016	8260B	**0.31**	0.059	<0.1	<0.1	**0.062**	**0.048**	**0.048**	<1.0		<1.0					<0.1		**0.06**	<0.1			<0.1	<0.1		**0.028**	<0.3	0.058	<0.1			<0.1		<0.1	<0.1	<0.1	**0.049**
	11/3/2015	8260B	**0.57**	**0.14**	<0.05		<0.1	<0.2	<0.2	<0.5		<0.5					<0.05		<0.05	<0.05			<0.05	<0.05			<0.15	0.087	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	8/18/2015	8260B	**0.23**	0.046	<0.02		**0.054**	<0.08	<0.08	<0.2		<0.2					<0.02		**0.063**	<0.02			0.022	<0.02			<0.06	0.051	<0.02			<0.02		<0.02	<0.02	<0.02	**0.049**
	6/4/2015	8260B	**0.57**	**0.14**	<0.02		**0.11**	<0.08	<0.08	<0.2		0.43					<0.02		**0.031**	<0.02			0.036	<0.02			<0.06	0.099	<0.02			<0.02		<0.02	<0.02	<0.02	**0.034**
	3/16/2015	8260B	**0.51**	0.11	<0.02		**0.093**	<0.08	<0.08	<0.2		<0.2					<0.02		**0.048**	<0.02			0.033	<0.02			<0.06	0.094	<0.02			<0.02		<0.02	<0.02	<0.02	**0.045**
	11/13/2014	8260B	**0.4**	0.06	<0.02		**0.058**	<0.08	<0.08	<0.2		<0.2					<0.2		**0.047**	<0.02			0.029	<0.02			<0.06	0.078	<0.02			<0.02		<0.02	<0.02	<0.02	**0.054**
	9/15/2014	8260B	**0.36**	0.058	<0.05		<0.1	<0.2	<0.2	<0.5		<0.5					<0.5		**0.057**	<0.05			<0.05	<0.05			<0.15	0.069	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	6/5/2014	8260B	**0.27**	0.052	<0.005		**0.066**	<0.02	<0.02	0.29		0.17					**0.016**		**0.053**	<0.005			0.029	<0.005			<0.015	0.068	7.80E-03			<0.005		0.014	<0.005	<0.005	**0.018**
	4/11/2014	8260B	**0.41**	0.062	<0.05		<0.1	<0.2	<0.2	<0.5		<0.5					<0.05		**0.065**	<0.05			<0.05	<0.05			<0.15	0.097	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
MKTF-15	11/2/2016	8260B	**0.63**	**0.19**	<0.05	<0.05	**0.097**	<0.2	<0.2	0.4		0.66					<0.05		<0.05	<0.05			0.12	0.017	0.06		0.019	0.15	0.023			<0.05		<0.05	<0.05	<0.05	**0.024**
	9/11/2016	8260B	**0.57**	**0.17**	<0.05	<0.05	**0.086**	**0.015**	0.014	1.2		1.3					<0.05		<0.05	<0.05			0.12	<0.05	0.083		<0.15	0.14	7.8E-03			<0.05		<0.05	<0.05	<0.05	<0.05
	9/17/2014	8260B	**0.66**	**0.18**	<0.05		**0.12**	<0.2	<0.2	<0.5		<0.5					<0.05		<0.05	<0.05			0.068	<0.05			<0.15	0.14	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	6/5/2014	8260B	**0.33**	0.095	<0.005		**0.08**	**0.03**	0.035	0.29		0.062					<0.005		<0.005	<0.005			0.059	5.9E-03			<0.015	0.097	0.012			<0.005		<0.005	<0.005	<0.005	<0.005
	4/10/2014	8260B	**0.46**	0.11	<0.01		**0.072**	<0.04	<0.04	<0.1		<0.1					<0.01		<0.01	<0.01			0.053	<0.01			<0.03	0.094	0.012			<0.01		<0.01	<0.01	<0.01	<0.01
MKTF-16	11/3/2016	8260B	**0.56**	**0.21**	<0.1	<0.1	**0.17**	**0.056**	**0.057**	<1.0		<1.0					<0.1		<0.1	<0.1			0.015	<0.1			<0.3	0.052	<0.1			<0.1		<0.1	<0.1	<0.1	<0.1
	9/12/2016	8260B	**0.78**	**0.27**	<0.1	<0.1	**0.23**	**0.052**	**0.06**	<1.0		<1.0					<0.1		**0.065**	<0.1			0.019	<0.1			<0.3	0.082	<0.1			<0.1		<0.1	<0.1	<0.1	<0.1
	6/9/2016	8260B	**0.73**	**0.24**	<0.02	<0.02	**0.17**	**0.046**	**0.055**	<0.2		<0.2					8.4E-04		**0.049**	<0.02			0.022	0.005			0.016	0.067	0.0059			<0.02		<0.02	<0.02	<0.02	<0.02
	2/29/2016	8260B	**0.69**	**0.24**	<0.1	<0.1	**0.14**	**0.057**	**0.063**	<1.0		<1.0					<0.1		**0.05**	<0.1			<0.1	<0.1			<0.3	0.059	<0.1			<0.1		<0.1	<0.1	<0.1	<0.1
	11/3/2015	8260B	**1.1**	**0.33**	<0.05		**0.2**	<0.2	<0.2	<0.5		<0.5					<0.05		**0.061**	<0.05			<0.05	<0.05			<0.15	0.092	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	8/23/2015	8260B	**0.89**	**0.32**	<0.1		**0.2**	<0.4	<0.4	<1.0		<1.0					<0.1		<0.1	<0.1			<0.1	<0.1			<0.3	0.11	<0.1			<0.1		<0.1	<0.1	<0.1	<0.1
	6/8/2015	8260B	**0.77**	**0.27**	<0.05		**0.17**	<0.2	<0.2	<0.5		<0.5					<0.05		<0.05	<0.05			<0.05	<0.05			<0.15	0.084	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	3/16/2015	8260B	**0.94**	**0.31**	<0.05		**0.2**	<0.2	<0.2	<0.5		<0.5					<0.05		<0.05	<0.05			<0.05	<0.05			<0.15	0.11	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	11/18/2014	8260B	**1.0**	**0.36**	<0.05		**0.16**	<0.2	<0.2	<0.5		<0.5					<0.05		**0.081**	<0.05			<0.05	<0.05			<0.15	0.09	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	9/17/2014	8260B	**1.1**	**0.36**	<0.05		**0.26**	<0.2	<0.2	<0.5		<0.5					<0.05		<0.05	<0.05			<0.05	<0.05			<0.15	0.12	<0.05			<0.05		<0.05	<0.02	<0.05	<0.05
	6/5/2014	8260B	**1.2**	**0.36**	<0.05		**0.24**	<0.2	<0.2	<0.5		<0.5					<0.05		<0.05	<0.05			<0.05	<0.05			<0.15	0.15	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	4/10/2014	8260B	**0.49**	0.12	<0.02		**0.07**	<0.08	<0.08	<0.2		<0.2					<0.02		<0.02	<0.02			0.053	<0.02			<0.06	0.099	<0.02			<0.02		<0.02	<0.02	<0.02	<0.02
MKTF-17	11/8/2016	8260B	1.7E-03	<0.005	<0.005	<0.005	**0.021**	**0.01**	0.003	<0.05	<0.015	<0.05					<0.005		<0.005	<0.005			0.02	2.3E-03			2.7E-03	0.032	3.5E-03	<0.005		<0.005		<0.005	<0.005	<0.005	<0.005
	9/13/2016	8260B	0.012	<0.01	<0.01	<0.01	**0.014**	**0.013**	<0.04	<0.1	**9.3E

8.17.5 MKTF WELLS

Volatile Organic Compounds Analytical Results

		STANDARDS	1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	1,2-Dichloroethane (EDC) (mg/L)	1,2-Dibromoethane (EDB) (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	Bromomethane (mg/L)	(Methyl ethyl ketone) 2-Butanone (mg/L)	Chlorobenzene (mg/L)	Chloroethane (mg/L)	Chloroform (mg/L)	Chloromethane (mg/L)	cis-1,2-DCE (mg/L)	1,4-Dichlorobenzene (mg/L)	1,1-Dichloroethane (mg/L)	1,1-Dichloroethene (mg/L)	1,2-Dichloropropane (mg/L)	2-Hexanone (mg/L)	Isopropylbenzene (mg/L)	4-Isopropyltoluene (mg/L)	4-Methyl-2-pentanone (mg/L)	Methylene Chloride (mg/L)	n-Butylbenzene (mg/L)	n-Propylbenzene (mg/L)	sec-Butylbenzene (mg/L)	Styrene (mg/L)	tert-Butylbenzene (mg/L)	Tetrachloroethene (PCE) (mg/L)	1,2,4-Trichlorobenzene (mg/L)	1,1,1-Trichloroethane (mg/L)	1,1,2-Trichloroethane (mg/L)	Trichloroethene (TCE) (mg/L)	Vinyl Chloride (mg/L)
		WQCC 20NMAC 6.2.3103	NE	NE	0.01	0.0001	NE	NE	NE	NE	NE	NE	NE	NE	0.1	NE	**0.005**	NE	**0.025**	**0.005**	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.02	NE	**0.06**	0.01	NE	**0.001**
		40 CFR 141.62 MCL	NE	NE	**0.005**	**0.00005**	NE	NE	NE	NE	NE	NE	NE	NE	**0.08**	NE	0.07	**0.075**	NE	0.007	**0.005**	NE	NE	NE	NE	NE	**0.005**	NE	NE	NE	**0.1**	NE	**0.005**	**0.07**	0.2	**0.005**	**0.005**	0.002
		NMED Tap Water (JUL 2015)	NE	NE	0.0275	0.0000746	**0.00165**	NE	NE	**14.1**	**0.00754**	**5.56**	**0.0776**	NE	0.00229	**0.0203**	0.0365	0.00481	0.0275	0.284	0.00437	NE	**0.447**	NE	**1.24**	0.106	NE	NE	NE	1.21	NE	NE	0.00398	8.0	0.000415	0.00282	0.000201
		EPA RSL for Tap Water (MAY 2016)	**0.015**	**0.12**	0.017	0.0000075	1.7E-04	**1.1E-03**	**0.036**	14	0.0075	5.6	0.078	NE	0.00022	0.19	3.6E-02	4.8E-04	2.8E-03	0.28	0.001	**0.038**	NE	NE	6.3	0.011	**1.0**	**0.66**	**2.0**	1.2	**0.69**	0.011	0.0012	8.0	0.00028	0.00049	0.000019
Well ID	DATE SAMPLED	METHOD																																			
	3/12/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	1.2E-03			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	11/18/2014	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			9.1E-03	0.003			<0.003	0.013	2.1E-03			<0.001		<0.001	<0.001	<0.001	<0.001
	9/18/2014	8260B	<0.01	<0.01	<0.01		<0.02	<0.04	<0.04	<0.1		<0.1					<0.01		<0.01	<0.01			0.029	<0.01			<0.03	0.066	<0.01			<0.01		<0.01	<0.01	<0.01	<0.01
	6/6/2014	8260B	**0.064**	<0.01	<0.01		<0.02	<0.04	<0.04	<0.1		<0.1					<0.01		<0.01	<0.01			0.03	<0.01			<0.03	0.06	<0.01			<0.01		<0.01	<0.01	<0.01	<0.01
	4/9/2014	8260B	**0.074**	<0.01	<0.01		**0.032**	<0.04	<0.04	<0.1		<0.1					<0.01		<0.01	<0.01			0.037	<0.01			<0.03	0.096	0.01			<0.01		<0.01	<0.01	<0.01	<0.01
MKTF-18	11/8/2016	8260B	7.8E-04	<0.001	4.2E-04	<0.001	**0.024**	**0.11**	0.034	5.5E-03		<0.01					2.9E-03	4.8E-04	<0.001	6.0E-04			2.0E-03	9.9E-04			1.3E-03	2.6E-03	1.5E-03		3.2E-04	<0.002		<0.002	<0.002	<0.002	<0.002
	9/13/2016	8260B	1.1E-03	1.5E-04	<0.001	<0.001	**0.022**	**0.079**	0.027	<0.01		<0.01					2.7E-03		<0.001	6.2E-04			2.4E-03	9.1E-04			1.3E-03	0.003	1.6E-03		3.7E-04	<0.001		<0.001	<0.001	<0.001	<0.001
	6/10/2016	8260B	0.004	4.0E-04	<0.001	<0.001	**0.025**	**0.082**	0.025	9.8E-03		4.4E-03					3.6E-03		8.2E-04	6.9E-04			3.6E-03	1.1E-03			2.2E-03	5.3E-03	2.3E-03		3.1E-04	<0.001		<0.001	<0.001	<0.001	<0.001
	2/26/2016	8260B	0.014	1.2E-03	<0.001	<0.001	**0.035**	**0.14**	**0.04**	3.2E-03		<0.01					4.2E-03		7.6E-04	4.3E-04			6.0E-03	1.7E-03			0.003	7.1E-03	3.2E-03		<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
	11/3/2015	8260B	**0.051**	7.2E-03	<0.002		**0.042**	**0.11**	0.027	<0.02		<0.02					4.6E-03		<0.002	<0.002			6.7E-03	2.6E-03			<0.006	0.011	3.7E-03			<0.002		<0.002	<0.002	<0.002	<0.002
	8/18/2015	8260B	**0.047**	0.009	<0.001		**0.053**	**0.16**	**0.051**	<0.01		<0.01					**5.6E-03**		<0.001	<0.001			7.7E-03	2.3E-03			4.4E-03	0.012	3.7E-03			<0.001		<0.001	<0.001	<0.001	<0.001
	6/8/2015	8260B	**0.051**	0.012	<0.001		**0.043**	**0.099**	0.026	<0.01		<0.01					4.5E-03		<0.001	<0.001			6.0E-03	0.002			<0.003	7.1E-03	1.9E-03			<0.001		<0.001	<0.001	<0.001	<0.001
	3/17/2015	8260B	**0.065**	0.019	<0.005		**0.036**	**0.088**	0.025	<0.05		<0.05					**5.6E-03**		<0.005	<0.005			<0.005	<0.005			<0.015	<0.005	<0.005			<0.005		<0.005	<0.005	<0.005	<0.005
	11/18/2014	8260B	**0.096**	0.023	<0.005		**0.088**	**0.2**	**0.082**	<0.05		<0.05					**5.6E-03**		<0.005	<0.005			8.8E-03	<0.015			<0.015	0.013	<0.005			<0.005		<0.005	<0.005	<0.005	<0.005
	9/18/2014	8260B	**0.095**	0.025	<0.005		**0.097**	**0.15**	0.033	<0.05		<0.05					**7.3E-03**		<0.005	<0.005			7.8E-03	<0.005			<0.015	0.011	<0.005			<0.005		<0.005	<0.005	<0.005	<0.005
	6/6/2014	8260B	**0.088**	0.029	<0.005		**0.068**	**0.13**	0.028	<0.05		<0.05					<0.005		<0.005	<0.005			<0.005	<0.005			<0.015	6.6E-03	<0.005			<0.005		<0.005	<0.005	<0.005	<0.005
	4/14/2014	8260B	**0.091**	0.024	<0.005		**0.077**	**0.13**	**0.043**	<0.05		<0.05					<0.005		<0.005	<0.005			5.2E-03	<0.005			<0.015	7.6E-03	<0.005			<0.005		<0.005	<0.05	<0.005	<0.005
MKTF-19	11/8/2016	8260B	**0.63**	0.11	**0.007**	<0.02	**0.51**	**0.22**	**0.26**	<0.2		<0.2					<0.02		<0.02	<0.02			0.032	6.2E-03		<0.06	0.014	0.084	8.8E-03	<0.02		<0.02		<0.02	<0.02	<0.02	<0.02
	9/13/2016	8260B	**0.62**	0.1	<0.02	<0.02	**0.45**	**0.18**	**0.25**	<0.2		<0.2					<0.02		<0.01	<0.01			0.035	6.9E-03		<0.06	0.014	0.085	0.009	3.3E-03		<0.02		<0.02	<0.02	<0.02	<0.02
	6/10/2016	8260B	**0.58**	0.079	<0.01	<0.01	**0.41**	**0.15**	**0.21**	<0.1		<0.1					<0.01		<0.1	<0.1			0.034	5.4E-03		<0.03	0.017	0.09	6.5E-03			<0.01		<0.01	<0.01	<0.01	<0.01
	2/25/2016	8260B	**0.68**	0.082	<0.02	<0.02	**0.55**	**0.25**	**0.35**	<0.2		<0.2					<0.02		<0.02	<0.02			0.033	5.9E-03		**5.6E-03**	0.017	0.099	7.5E-03			<0.02		<0.02	<0.02	<0.02	<0.02
	11/3/2015	8260B	**0.53**	0.094	<0.01		**0.43**	**0.17**	**0.27**	<0.1		<0.1					<0.01		<0.01	<0.01			0.026	<0.01			<0.03	0.073	<0.01			<0.01		<0.01	<0.01	<0.01	<0.01
	8/18/2015	8260B	**0.52**	0.073	<0.01		**0.49**	**0.23**	**0.38**	<0.1		<0.1					<0.01		<0.01	<0.01			0.031	<0.01			<0.03	0.08	<0.01			<0.01		<0.01	<0.01	<0.01	<0.01
	6/8/2015	8260B	**0.42**	0.055	<0.01		**0.34**	**0.15**	**0.23**	<0.1		<0.1					<0.01		<0.01	<0.01			0.029	<0.01			<0.03	0.062	<0.01			<0.01		<0.01	<0.01	<0.01	<0.01
	3/12/2015	8260B	**0.39**	0.047	<0.01		**0.38**	**0.17**	**0.25**	<0.1		<0.1					<0.01		<0.01	<0.01			0.018	<0.01			<0.03	0.037	<0.01			<0.01		<0.01	<0.01	<0.01	<0.01
	11/18/2014	8260B	**0.83**	0.11	<0.05		**0.58**	**0.41**	**0.54**	<0.5		<0.5					<0.05		<0.05	<0.05			<0.05	<0.05			<0.15	0.11	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	9/24/2014	8260B	**0.69**	0.11	<0.05		**0.5**	**0.22**	**0.36**	<0.5		<0.5					<0.5		<0.05	<0.05			<0.05	<0.05			<0.15	0.1	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	4/9/2014	8260B	**0.59**	0.099	<0.05		**0.43**	<0.2	**0.3**	<0.5		<0.5					<0.05		<0.05	<0.05			<0.05	<0.05			<0.15	0.086	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
MKTF-20	11/3/2016	8260B	**1.2**	**0.35**	<0.1	<0.1	**0.19**	**0.073**	**0.079**	<1.0		<1.0					<0.1		<0.1	<0.1		<1.0	0.035	<0.1		<0.3	<0.3	0.11	<0.1			<0.1		<0.1	<0.1	<0.1	<0.1
	9/12/2016	8260B	**1.3**	**0.41**	<0.1	<0.1	**0.23**	**0.053**	**0.062**	<1.0		<1.0					<0.1		<0.1	<0.1		<1.0	0.028	<0.1		<0.3	<0.3	0.11	<0.1			<0.1		<0.1	<0.1	<0.1	<0.1
	6/9/2016	8260B	**0.97**	**0.31**	<0.01	<0.01	**0.14**	**0.04**	**0.049**	0.12		0.047					<0.01		<0.01	<0.01		<0.1	0.02	4.5E-04		<0.3	0.02	0.058	4.3E-04			<0.01		<0.01	<0.01	<0.01	<0.01
	3/1/2016	8260B	**1.2**	**0.38**	<0.05	<0.05	**0.14**	**0.037**	**0.051**	<0.5		<0.5					<0.05		<0.05	<0.05		**0.053**	0.018	<0.05		**9.9E-03**	0.011	0.073	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	6/8/2015	8260B	**0.94**	**0.34**	<0.05		**0.1**	<0.2	<0.2	<0.5		<0.5					<0.5		<0.05	<0.05			<0.05	<0.05			<0.15	<0.05	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	3/16/2015	8260B	**1.3**	**0.39**	<0.05		**0.21**	<0.2	<0.2	<0.5		<0.5					<0.5		<0.05	<0.05			<0.05	<0.05			<0.15	<0.05	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	11/18/2014	8260B	**1.8**	**0.53**	<0.5		**0.16**	<0.2	<0.2	<0.5		<0.5					<0.5		<0.5	<0.5			<0.05	<0.05			<0.15	0.12	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	4/11/2014	8260B	**1.9**	**0.5**	<0.05		**0.3**	<0.2	<0.2	<0.5		<0.05					<0.05		<0.05	<0.05			0.076	<0.05			<0.15	0.26	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
MKTF-21	11/3/2016	8260B	**0.23**	0.096	<0.05	<0.05	**0.047**	<0.2	<0.2	<0.5		<0.5					<0.05		<0.05	<0.05		<0.5	8.5E-03	<0.05	0.032	<0.15	<0.15	0.019	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	9/12/2016	8260B	**0.24**	0.11	<0.05	<0.05	**0.03**	**0.015**	0.014	<0.5		<0.5					<0.05		<0.05	<0.05		<0.5	8.2E-03	<0.05	0.048	<0.15	<0.15	0.021	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
	6/9/2016	8260B	**0.14**	0.066	<0.01	<0.01	**0.019**	**0.01**	0.012	0.17		0.11					<0.01		<0.01	<0.01		<0.1	7.4E-03	<0.01	0.043	<0.15	6.6E-03	0.013	1.6E-03			<0.01		<0.01	<0.01	<0.01	<0.01
	3/1/2016	8260B	**0.14**	0.067	<0.01	<0.01	**0.016**	**6.7E-03**	7.2E-03	<0.1		<0.1					<0.01		<0.01	<0.01		0.026	2.7E-03	<0.01	0.05	0.002	1.7E-03	6.9E-03	<0.01			<0.01		<0.01	<0.1	<0.01	<0.01
	6/10/2015	8260B	**0.11**	0.047	<0.01		<0.02	<0.04	<0.04	<0.1		<0.1					<0.01		<0.01	<0.01			<0.01	<0.01			<0.03	0.015	<0.01			<0.01		<0.01	<0.01	<0.01	<0.01
	3/16/2015	8260B	**0.11**	0.051	<0.01		<0.02	<0.04	<0.04	<0.1		<0.1					<0.1		<0.01	<0.01			<0.01	<0.01			<0.03	0.016	<0.01			<0.01		<0.01	<0.01	<0.01	<0.01
	4/11/2014	8260B	**2.2**	**0.6**	<0.05		**0.49**	<0.2	<0.2	<0.5		<0.5					<0.5		<0.05	<0.05			0.1	<0.05			<0.15	0.38	<0.05			<0.05		<0.05	<0.05	<0.05	<0.05
MKTF-22	11/1/2016	8260B	0.015	1.9E-03	<0.01	<0.01	**0.07**	**0.094**	0.016	<1.0		<1.0					**6.6E-03**		<0.01	**6.8E-03**			1.8E-02	4.1E-03			0.013	0.044	7.8E-03	2.1E-03		<0.01	0.003	<0.01	<0.01	<0.01	<0.01
	9/10/2016	8260B	0.015	<0.02	<0.02	<0.02	**0.078**	**0.088**	0.014	<0.2		<0.2					0.011		<0.02	**9.4E-03**			0.018	<0.02			8.5E-03	0.043	4.2E-03			<0.02		<0.02	<0.02	<0.02	<0.02
	6/10/2016	8260B	**0.025**	1.7E-03	<0.01	<0.01	**0.073**	**0.088**	0.016	0.082		0.031					**0.008**		<0.01	**6.9E-03**			0.021	3.8E-03			0.014	0.051	7.4E-03			<0.01		<0.01	<0.01	<0.01	<0.01
	2/25/2016	8260B	**0.043**	<0.02	0.003	<0.02	**0.073**	**0.11**	0.017	<0.2		<0.2					**7.7E-03**		<0.02	0.004			0.02	3.7E-03			0.013	0.05	7.1E-03			<0.02		<0.02	<0.02	<0.02	<0.02
	11/9/2015	8260B	**0.029**	<0.02	<0.02		<0.04	<0.08	<0.08	<0.2		<0.2					<0.02		<0.02	<0.2			<0.02	<0.02			<0.06	0.032	<0.02			<0.02		<0.02	<0.02	<0.02	<0.02
	8/20/2015	8260B	<0.02	<0.02	<0.02		<0.04	<0.08	<0.08	<0.2		<0.2					<0.02		<0.02	<0.02			<0.02	<0.02			<0.06	<0.02	<0.02			<0.02		<0.02	<0.02	<0.02	<0.02
	6/9/2015	8260B	**0.053**	<0.02	<0.02		<0.04	**0.08**	<0.08	<0.2		<0.2					<0.02		<0.02	<0.02			<0.02	<0.02			<0.06	0.033	<0.02			<0.02		<0.02	<0.02	<0.02	<0.02
	3/12/2015	8260B	**0.058**	<0.02	<0.02		<0.04	**0.099**	<0.08	<0.2		<0.2					<0.02		<0.02	<0.02			<0.02	<0.02			<0.06	0.031	<0.02			<0.02		<0.02	<0.02	<0.02	<0.02
	11/17/2014	8260B	<0.01	<0.01	<0.01		<0.02	**0.058**	<0.04	<0.1		<0.1					0.01		0.015	<0.01			<0.01	<0.01			<0.03	0.013	<0.01			<0.01		<0.01	<0.01	<0.01	<0.01
	4/10/2014	8260B	**0.089**	<0.01	<0.01		<0.02	**0.048**	<0.04	<0.1		<0.1					<0.01		<0.01	<0.01			0.015	<0.01			<0.03	0.033	<0.01			<0.01		<0.01	<0.01	<0.01	<0.01
MKTF-23	6/10/2016	8260B	**1.5**	**0.52**	<0.01		**0.28**	**0.14**	**0.19**	<0.1		<0.1					**0.034**		**0.096**	**0.056**			0.033	0.02			0.074	0.065	0.022			1.5E-03		0.016	<0.01	4.3E-03	<0.01
	2/25/2016	8260B	**1.3**	**0.35**	**5.3E-03**		**0.24**	**0.085**	**0.11**	0.042		<0.2					**0.036**		**0.11**	**0.058**			0.029	0.0097			0.017	0.048	0.01			<0.02		0.014	<0.02	<0.02	<0.02
	11/9/2015	8260B	**1.4**	**0.38**	<0.02		**0.39**	**0.14**	**0.21**	<0.2		<0.2					**0.049**		**0.11**	**0.049**			0.048	<0.02			<0.06	0.092	<0.02			<0.02		0.027	<0.02	<0.02	<0.02
	8/21/2015	8260B	**0.92**	**0.24**	<0.02		**0.16**	<0.08	<0.08	<0.2		<0.2					**0.045**		**0.13**	**0.054**			0.029	<0.02			<0.06	0.054	<0.02			<0.02		0.031	<0.02	<0.02	<0.02
	6/9/2015	8260B	**1.1**	**0.28**	<0.01		**0.22**	**0.079**	**0.12**	<0.1		<0.1					**0.042**		**0.13**	**0.062**			0.41	<0.01			<0.03	0.073	0.01			<0.01		0.034	<0.01	<0.01	<0.01
	3/12/2015	8260B	**1.4**	**0.38**	<0.01		**0.3**	**0.097**	**0.14**	<0.1		<0.1					**0.055**		**0.12**	**0.053**			0.044	<0.01			<0.03	0.093	0.01			<0.01		0.049	<0.01	<0.01	<0.01
	11/17/2014	8260B	**0.89**	**0.22**	<0.01		**0.15**	**0.074**	**0.11**	<0.1		<0.1					**0.043**		**0.15**	**0.064**			0.034	<0.01			<0.03	0.066	<0.01			<0.01		0.024	<0.01	<0.01	**0.022**
	9/23/2014	8260B	**0.54**	**0.15**	<0.01		**0.1**	<0.04	**0.041**	<0.1		<0.1					**0.029**		**0.092**	**0.047**			0.026	<0.01			<0.03	0.058	<0.01			<0.01		0.024	<0.01	<0.01	<0.01
MKTF-24	10/28/2016	8260B	0.01	<0.02	7.9E-03	<0.02	<0.04	**5.2E-03**	<0.08	<0.2		<0.2					**0.035**		**0.088**	**0.045**			0.039	<0.02			0.017	0.093	0.012			<0.02		<0.02	<0.02	<0.02	<0.02
	9/7/2016	8260B/8011/504.1/EDB	9.3E-03	<0.02	<0.02	**0.031**	<0.04	**9.3E-03**	<0.08	<0.2		<0.2					**0.027**		**0.094**	**0.042**			0.035	<0.02			0.015	0.065	0.011			<0.02		3.5E-03	<0.02	<0.02	<0.02
	6/8/2016	8260B	3.2E-03	7.5E-04	<0.005	<0.005	**0.004**	**3.8E-03**	<0.02	0.044		0.012					**0.028**		**0.092**	**0.046**			0.013	<0.005			4.2E-03	0.022	3.2E-03			<0.005		3.6E-03	1.4E-03	4.3E-03	**4.9E-03**
	2/22/2016	8260B	7.2E-03	<0.02	**8.1E-03**	<0.02	**0.014**	**1.1E-02**	<0.08	<0.2		<0.2					**0.032**		**0.093**	**0.051**			0.037	<0.02			0.014	0.094	<0.02			<0.02		<0.02	<0.02	<0.02	<0.02
	11/4/2015	8260B	<0.02	<0.02	<0.02		<0.04	<0.08	<0.08	<0.2		<0.2					**0.034**		**0.12**	**0.046**			<0.02	<0.02			<0.06	0.033	<0.02			<0.02		<0.02	<0.02	<0.02	<0.02
	8/20/2015	8260B	<0.02	<0.02	<0.02		<0.04	<0.08	<0.08	<0.2		<0.2					**0.028**		**0.11**	**0.049**			<0.02	<0.02			<0.06	0.028	<0.02			<0.02		<0.02	<0.02	<0.02	<0.02
	6/10/2015	8260B	<0.005	<0.005	**8.3E-03**		<0.01	<0.02	<0.02	<0.05		<0.05					**0.036**		**0.12**	**0.058**			0.011	<0.005			<0.015	0.016	<0.005			<0.005		0.011	<0.005	<0.005	<0.005
	3/11/2015	8260B	<0.005	<0.005	**0.007**		<0.01	<0.02	<0.02	<0.05		<0.05					**0.035**		**0.1**	**0.051**			0.016	<0.005			<0.015	0.024	<0.005			<0.005		0.01	<0.005	<0.005	<0.005
	11/14/2014	8260B	2.7E-03	<0.001	**9.6E-03**		<0.002	**4.6E-03**	<0.004	<0.01		<0.01					**0.039**		**0.15**	**0.058**			0.018	<0.001			5.8E-03	0.028	0.004			<0.001		4.6E-03	1.1E-03	4.9E-03	**0.014**
	9/24/2014	8260B	2.3E-03	<0.002	**9.8E-03**		<0.004	<0.008	<0.008	<0.02		<0.02					**0.044**		**0.14**	**0.067**			0.024	<0.002			8.7E-03	0.039	6.5E-03			<0.002		<0.002	<0.002	0.005	<0.003
	4/8/2014	8260B	<0.001	<0.001	**0.014**		<0.002	<0.004	<0.004	<0.01		<0.01					**0.057**		**0.2**	**0.088**			0.02	<0.001			9.1E-03	0.038	0.005			1.9E-03		0.021	1.4E-03	**5.2E-03**	<0.001
MKTF-25	11/1/2016	8260B	2.5E-03	<0.01	**0.0086**	<0.01	<0.01	<0.04	<0.04	<0.1		<0.1					**0.044**		**0.22**	**0.088**			0.023	<0.005			0.008	0.028	5.4E-03			2.7E-03		0.014	<0.01	**0.018**	<0.01
	9/9/2016	8260B/8011/504.1/EDB	<0.01	<0.01	**0.0079**	<0.01	<0.02	<0.04	<0.04	<0.1		<0.1					**0.04**		**0.18**	**0.055**			0.025	<0.01			0.009	0.032	5.9E-03			2.1E-03		5.9E-03	<0.01	**0.011**	**5.9E-03**
	6/9/2016	8260B	**0.021**	1.7E-03	<0.01	<0.00001	**0.019**	**8.2E-03**	<0.04	<0.1		<0.1					**0.1**		**0.61**	**0.24**			0.093	2.4E-03			0.029	0.086	0.015			0.006		**0.064**	<0.01	**0.064**	**6.6E-03**
	2/23/2016	8260B	3.0E-03	<0.005	**0.013**	<0.005	**0.007**	**4.5E-03**	<0.02	<0.05		<0.05					**0.045**		**0.3**	**0.12**			0.047	<0.005			0.016	0.055	5.6E-03			2.3E-03		0.046	1.4E-03	**0.029**	**3.4E-03**
	11/5/2015	8260B	5.6E-03	<0.005	**0.013**		<0.01	<0.02	<0.02	<0.05		<0.05					**0.049**		**0.3**	**0.13**			0.049	<0.005			0.016	0.044	8.4E-03			<0.005		0.045	<0.005	**0.036**	<0.005
	8/21/2015	8260B	5.6E-03	<0.005	**0.012**		<0.01	<0.02	<0.02	<0.05		<0.05					**0.047**		**0.32**	**0.16**			0.044	<0.005			<0.015	0.057	8.3E-03			<0.005		**0.061**	<0.005	**0.037**	<0.005
	6/10/2015	8260B	**0.018**	<0.005	**0.011**		<0.01	<0.02	<0.02	<0.05		<0.05					**0.044**		**0.28**	**0.12**			0.04	<0.005			<0.015	0.042	6.1E-03			<0.005		0.05	<0.005	**0.029**	<0.005
	3/11/2015	8260B	8.6E-03	<0.005	**0.012**		**0.018**	<0.02	<0.02	<0.05		<0.05					**0.055**		**0.28**	**0.14**			0.037	<0.005			0.016	0.051	7.3E-03			<0.005		0.053	<0.005	**0.031**	<0.005
	11/14/2014	8260B	<0.005	<0.005	**0.012**		<0.01	<0.02	<0.02	<0.05		<0.05					**0.044**		**0.23**	**0.098**			0.04	<0.005			<0.015	0.037	6.6E-03			<0.005		0.023	<0.005	**0.027**	**0.046**
	9/23/2014	8260B	<0.01	<0.01	<0.01		<0.02	<0.04	<0.04	<0.1		<0.1					**0.046**		**0.25**	**0.1**			0.038	<0.01			<0.03	0.041	<0.01			<0.01		0.03	<0.01	**0.024**	<0.01
	4/8/2014	8260B	9.9E-03	0.003	**0.01**		**0.03**	<0.008	<0.008	<0.02		<0.02					**0.054**		**0.33**	**0.15**			0.034	<0.002			0.014	0.039	5.8E-03			3.3E-03		**0.076**	<0.002	**0.03**	<0.002
MKTF-26	6/9/2016	8260B	1.6E-03	<0.005	**0.012**	4.5E-06	<0.01	<0.02	<0.02	<0.05		<0.05	1.6E-03				4.0E-03		**0.061**	**0.068**			2.2E-03	<0.005		<0.015	<0.015	1.5E-03	<0.005			<0.005		1.2E-03	1.5E-03	3.1E-03	**8.6E-03**
	2/22/2016	8260B	<0.005	<0.005	**0.011**	<0.005	<0.01	<0.02	<0.02	<0.05		<0.05					3.3E-03		**0.055**	**0.061**			0.0012	<0.005		1.1E-03	<0.015	<0.005	<0.005			<0.005		<0.005	1.3E-03	2.3E-03	**7.1E-03**
	11/4/2015	8260B	<0.005	<0.005	**0.011**		<0.01	<0.02	<0.02	<0.05		<0.05					**6.5E-

8.17.5 MKTF WELLS

Volatile Organic Compounds Analytical Results

		STANDARDS	1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	1,2-Dichloroethane (EDC) (mg/L)	1,2-Dibromoethane (EDB) (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	Bromomethane (mg/L)	(Methyl ethyl ketone) 2-Butanone (mg/L)	Chlorobenzene (mg/L)	Chloroethane (mg/L)	Chloroform (mg/L)	Chloromethane (mg/L)	cis-1,2-DCE (mg/L)	1,4-Dichlorobenzene (mg/L)	1,1-Dichloroethane (mg/L)	1,1-Dichloroethene (mg/L)	1,2-Dichloropropane (mg/L)	2-Hexanone (mg/L)	Isopropylbenzene (mg/L)	4-Isopropyltoluene (mg/L)	4-Methyl-2-pentanone (mg/L)	Methylene Chloride (mg/L)	n-Butylbenzene (mg/L)	n-Propylbenzene (mg/L)	sec-Butylbenzene (mg/L)	Styrene (mg/L)	tert-Butylbenzene (mg/L)	Tetrachloroethene (PCE) (mg/L)	1,2,4-Trichlorobenzene (mg/L)	1,1,1-Trichloroethane (mg/L)	1,1,2-Trichloroethane (mg/L)	Trichloroethene (TCE) (mg/L)	Vinyl Chloride (mg/L)
		WQCC 20NMAC 6.2.3103	NE	NE	0.01	0.0001	NE	NE	NE	NE	NE	NE	NE	NE	0.1	NE	**0.005**	NE	**0.025**	**0.005**	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.02	NE	**0.06**	0.01	NE	**0.001**
		40 CFR 141.62 MCL	NE	NE	**0.005**	**0.00005**	NE	NE	NE	NE	NE	NE	NE	NE	**0.08**	NE	0.07	**0.075**	NE	0.007	**0.005**	NE	NE	NE	NE	**0.005**	NE	NE	NE	**0.1**	NE	**0.005**	**0.07**	0.2	**0.005**	**0.005**	0.002
		NMED Tap Water (JUL 2015)	NE	NE	0.0275	0.0000746	**0.00165**	NE	NE	**14.1**	**0.00754**	**5.56**	**0.0776**	NE	0.00229	**0.0203**	0.0365	0.00481	0.0275	0.284	0.00437	NE	**0.447**	NE	**1.24**	0.106	NE	NE	NE	1.21	NE	NE	0.00398	8.0	0.000415	0.00282	0.000201
		EPA RSL for Tap Water (MAY 2016)	**0.015**	**0.12**	0.017	0.0000075	1.7E-04	**1.1E-03**	**0.036**	14	0.0075	5.6	0.078	NE	0.00022	0.19	3.6E-02	4.8E-04	2.8E-03	0.28	0.001	**0.038**	NE	NE	6.3	0.011	**1.0**	**0.66**	**2.0**	1.2	**0.69**	0.011	0.0012	8.0	0.00028	0.00049	0.000019
Well ID	DATE SAMPLED	METHOD																																			
MKTF-27	10/28/2016	8260B	<0.001	<0.001	5.7E-04	<0.001	<0.002	<0.004	<0.04	<0.01		<0.01					1.9E-04		1.8E-03	3.9E-04	2.4E-04		<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	9/7/2016	8260B	1.8E-04	<0.001	7.6E-04	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01					3.2E-04		1.7E-03	5.8E-04	4.1E-04		<0.001	<0.001			<0.003	<0.001	3.1E-04			<0.001		<0.001	<0.001	<0.001	<0.001
	6/8/2016	8260B	4.9E-04	1.7E-04	7.0E-04	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01					2.2E-04		2.8E-03	7.4E-04	<0.001		<0.001	<0.001			<0.003	<0.001	1.6E-04			<0.001		<0.001	<0.001	<0.001	<0.001
	2/22/2016	8260B	<0.001	<0.001	5.9E-04	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01					1.3E-04		1.9E-03	4.7E-04	1.9E-04		<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	11/4/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		2.3E-03	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	8/20/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		1.8E-03	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	6/9/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		0.002	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	3/11/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		1.6E-03	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
MKTF-27	11/14/2014	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		2.8E-03	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	9/24/2014	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		0.002	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	4/8/2014	8260B	<0.002	<0.002	<0.002		<0.004	<0.008	<0.008	<0.02		<0.02					<0.002		<0.002	<0.002			<0.001	<0.002			<0.006	<0.002	<0.002			<0.001		<0.002	<0.002	<0.002	<0.001
MKTF-28	10/28/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.001	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	9/8/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.001	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	6/8/2016	8260B	1.9E-04	<0.001	<0.001	<0.001	3.6E-04	8.0E-04	0.001	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	2/23/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	11/4/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	8/20/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	6/9/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	3/11/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	11/14/2014	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	9/24/2014	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
MKTF-29	10/28/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	9/7/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	6/9/2016	8260B	<0.001	<0.001	<0.001	<0.00001	<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	2/23/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		0.0003	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	11/4/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	8/20/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	6/10/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	3/11/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	9/24/2014	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	4/9/2014	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.0.01		<0.001	<0.001	<0.001	<0.001
MKTF-30	10/28/2016	8260B/8011/504.1/EDB	<0.001	<0.001	**5.2E-03**	<0.01	<0.002	<0.004	<0.004	<0.01		<0.01		<0.002	2.0E-04		**0.01**		**0.11**	**7.9E-03**			<0.001	<0.001			<0.003	<0.001	<0.001			4.7E-04		2.6E-03	9.1E-04	**6.9E-03**	<0.001
	9/7/2016	8260B/8011/504.1/EDB	<0.001	<0.001	**5.7E-03**	<0.01	<0.002	<0.004	<0.004	<0.01		<0.01		<0.002	<0.001		**0.012**		**0.11**	**0.012**			<0.001	<0.001			<0.003	<0.001	<0.001			6.6E-04		2.7E-03	9.6E-04	**7.9E-03**	**1.8E-03**
	6/9/2016	8260B	<0.001	<0.001	**6.0E-03**	<0.01	<0.002	<0.004	<0.004	<0.01		<0.01		<0.002	<0.001		**0.012**		**0.13**	**0.01**			<0.001	<0.001			<0.003	<0.001	<0.01			7.7E-04		4.1E-03	1.2E-03	**8.8E-03**	<0.001
	2/23/2016	8260B	<0.001	<0.001	**6.7E-03**	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01		3.9E-04	2.7E-04		**0.012**		**0.13**	**0.01**			<0.001	<0.001			<0.003	<0.001	<0.001			6.5E-04		3.7E-03	1.4E-03	**8.0E-03**	<0.001
	11/4/2015	8260B	<0.001	<0.001	**6.8E-03**		<0.002	<0.004	<0.004	<0.01		<0.01					**0.012**		**0.13**	**0.01**			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		3.3E-03	1.4E-03	**8.8E-03**	<0.001
	8/20/2015	8260B	<0.001	<0.001	**5.1E-03**		<0.002	<0.004	<0.004	<0.01		<0.01					**8.7E-03**		**0.11**	**8.6E-03**			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		2.5E-03	1.0E-03	**6.4E-03**	<0.001
	6/10/2015	8260B	<0.001	<0.001	0.005		<0.002	<0.004	<0.004	<0.01		<0.01					**6.7E-03**		**0.11**	**6.7E-03**			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		2.9E-03	<0.001	**6.2E-03**	<0.001
	3/11/2015	8260B	<0.001	<0.001	0.004		<0.002	<0.004	<0.004	<0.01		<0.01					4.5E-03		**0.081**	0.004			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		1.9E-03	<0.001	3.6E-03	<0.001
	11/17/2014	8260B	<0.001	<0.001	**5.3E-03**		<0.002	<0.004	<0.004	<0.01		<0.01					3.9E-03		**0.087**	2.7E-03			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		0.003	1.1E-03	4.4E-03	**4.8E-03**
	9/24/2014	8260B	<0.001	<0.001	4.4E-03		<0.002	<0.004	<0.004	<0.01		<0.01					4.2E-03		**0.068**	3.5E-03			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		2.5E-03	1.1E-03	0.004	<0.001
	4/9/2014	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.01		**0.025**	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	1.4E-03	<0.001
MKTF-31	10/31/2016	8260B	<0.001	<0.001	**0.021**	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01			4.1E-04		1.6E-03		**0.031**	**0.057**	<0.001		7.1E-04	<0.001			3.2E-04	<0.001	3.7E-04			<0.001		4.8E-03	2.2E-03	3.7E-03	<0.001
	9/8/2016	8260B	<0.001	<0.001	**0.024**	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01			2.9E-04		1.4E-03		**0.033**	**0.069**	<0.001		1.6E-03	<0.001			<0.003	<0.001	6.6E-04			<0.001		5.6E-03	2.4E-03	3.8E-03	<0.001
	6/9/2016	8260B	<0.001	<0.001	**0.022**	**6.7E-06**	<0.002	<0.004	<0.004	<0.01		<0.01			<0.001		2.0E-03		**0.037**	**0.066**	<0.001		9.4E-04	<0.001			2.6E-04	<0.001	4.2E-04			<0.001		5.5E-03	2.4E-03	4.0E-03	<0.001
	2/23/2016	8260B	<0.001	<0.001	**0.023**	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01			4.0E-04		1.6E-03		**0.034**	**0.057**	2.0E-04		8.4E-04	<0.001			<0.003	<0.001	<0.001			<0.001		5.6E-03	2.4E-03	3.6E-03	2.6E-04
	11/4/2015	8260B	<0.001	<0.001	**0.022**		<0.002	<0.004	<0.004	<0.01		<0.01					2.1E-03		**0.033**	**0.057**			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		5.0E-03	2.1E-03	3.5E-03	<0.001
	8/21/2015	8260B	<0.001	<0.001	**0.018**		<0.002	<0.004	<0.004	<0.01		<0.01					1.7E-03		**0.028**	**0.047**			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		4.8E-03	1.7E-03	3.2E-03	<0.001
	6/10/2015	8260B	<0.001	<0.001	**0.018**		<0.002	<0.004	<0.004	<0.01		<0.01					1.7E-03		**0.029**	**0.053**			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		4.9E-03	1.6E-03	3.1E-03	<0.001
	3/11/2015	8260B	<0.001	<0.001	**0.014**		<0.002	<0.004	<0.004	<0.01		<0.01					1.6E-03		0.021	**0.04**			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		3.9E-03	1.5E-03	2.5E-03	<0.001
	11/17/2014	8260B	<0.001	<0.001	**0.016**		<0.002	<0.004	<0.004	<0.01		<0.01					1.8E-03		**0.029**	**0.034**			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		3.9E-03	1.6E-03	2.4E-03	**1.9E-03**
	9/23/2014	8260B	<0.001	<0.001	**0.013**		<0.002	<0.004	<0.004	<0.01		<0.01					1.8E-03		0.022	**0.041**			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		3.7E-03	1.6E-03	2.4E-03	<0.001
	4/8/2014	8260B	<0.001	<0.001	**0.021**		<0.002	<0.004	<0.004	<0.01		<0.01					1.6E-03		**0.028**	**0.059**			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		5.8E-03	1.8E-03	0.003	<0.001
MKTF-32	10/31/2016	8260B	<0.001	<0.001	**0.02**	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01				<0.003	1.6E-03		0.015	**0.03**			2.2E-04	<0.001			<0.003	<0.001	8.6E-04			<0.001		4.7E-04	1.6E-03	<0.001	<0.001
	9/9/2016	8260B/8011/504.1/EDB	<0.002	<.002	**0.017**	<0.01	<0.004	<0.008	<0.008	<0.02		<0.02				<0.006	1.5E-03		0.012	**0.026**			2.7E-04	<0.002			<0.006	<0.002	1.1E-03			<0.002		6.1E-04	1.1E-03	<0.002	<0.002
	6/9/2016	8260B	<0.002	<0.002	**0.026**	<0.01	<0.004	<0.008	<0.008	<0.02		<0.02				<0.006	2.1E-03		0.023	**0.046**			5.4E-04	<0.002			<0.006	<0.002	1.0E-03			<0.002		1.2E-03	1.9E-03	<0.002	<0.002
	2/24/2016	8260B	<0.001	<0.001	**0.019**	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01				<0.003	1.6E-03		0.017	**0.028**			2.1E-03	<0.001			1.7E-04	<0.001	9.3E-04			<0.001		5.5E-04	1.6E-03	<0.001	<0.001
	11/5/2015	8260B	<0.001	<0.001	**0.027**		<0.002	<0.004	<0.004	<0.01		<0.01				<0.003	2.0E-03		0.021	**0.039**			<0.001	<0.001			<0.003	<0.001	1.5E-03			<0.001		1.1E-03	2.2E-03	<0.001	<0.001
	8/21/2015	8260B	<0.002	<0.002	**0.022**		<0.004	<0.008	<0.008	<0.02		<0.02				<0.006	<0.02		0.019	**0.038**			<0.002	<0.002			<0.006	<0.002	<0.002			<0.002		<0.002	<0.002	<0.002	<0.002
	6/9/2015	8260B	<0.001	<0.001	**0.022**		<0.002	<0.004	<0.004	<0.01		<0.01				<0.001	1.5E-03		0.018	**0.036**			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	2.1E-03	<0.001	<0.001
	3/12/2015	8260B	<0.001	<0.001	**0.025**		<0.002	<0.004	<0.004	<0.01		<0.01				<0.001	1.3E-03		0.019	**0.048**			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		1.1E-03	1.7E-03	<0.001	<0.001
	11/17/2014	8260B	<0.001	<0.001	**0.028**		<0.002	<0.004	<0.004	<0.01		<0.01				0.013 [1]	1.2E-03		0.024	**0.041**			1.1E-03	<0.001			<0.003	<0.001	<0.001			<0.001		1.1E-03	2.5E-03	<0.001	**0.002**
	9/23/2014	8260B	<0.005	<0.005	**0.029**		<0.01	<0.02	<0.02	<0.05		<0.05					<0.005		0.023	**0.054**			<0.005	<0.005			<0.015	<0.005	<0.005			<0.005		<0.005	<0.005	<0.005	<0.005
	4/9/2014	8260B	<0.001	<0.001	**0.03**		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		0.022	**0.036**			2.5E-03	<0.001			<0.003	<0.001	<0.001			<0.001		1.5E-03	2.3E-03	<0.001	<0.001
MKTF-33	11/1/2016	8260B	3.0E-04	1.5E-04	3.4E-04	<0.001	7.3E-04	6.9E-04	7.6E-04	<0.01		<0.01					<0.001	<0.001	<0.001	<0.001			<0.001	2.0E-04			4.2E-04	4.4E-04	9.5E-04	2.8E-04		0.00018		<0.001	<0.001	<0.001	<0.001
	9/10/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01					<0.001	<0.001	<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	8.1E-04			<0.001		<0.001	<0.001	<0.001	<0.001
	6/10/2016	8260B	1.8E-04	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01					<0.001	1.4E-04	<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	6.0E-04			<0.001		<0.001	<0.001	<0.001	<0.001
	2/25/2016	8260B	<0.001	<0.001	2.0E-04	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01					<0.001	3.7E-04	<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	1.6E-03			<0.001		<0.001	<0.001	<0.001	<0.001
	11/9/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.001	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	8/21/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.001	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	6/9/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	3/12/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	11/17/2014	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	9/23/2014	8260B	<0.005	<0.005	<0.005		<0.01	<0.02	<0.02	<0.05		<0.05					<0.005		<0.005	<0.005			<0.005	<0.005			<0.015	<0.005	<0.005			<0.005		<0.005	<0.005	<0.005	<0.005
	4/10/2014	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
MKTF-34	11/8/2016	8260B	2.3E-04	<0.001	<0.001	<0.001	4.0E-04	5.1E-04	4.8E-04	<0.01		<0.01					2.6E-04	4.0E-04	<0.001	2.8E-03			<0.001	<0.001			<0.003	<0.001	<0.001			2.2E-04		<0.001	<0.001	4.8E-03	<0.001
	9/13/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001					<0.001		<0.001	8.9E-04			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	1.9E-03	<0.001
	6/10/2016	8260B	5.9E-04	<0.001	<0.001	<0.001	1.2E-03	**1.5E-03**	5.0E-04	<0.01		<0.01					<0.001		2.4E-04	7.8E-04			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	2.0E-03	<0.001
	2/25/2016	8260B	<0.001	<0.001	1.5E-04	<0.001	2.10E-04	4.30E-04	5.20E-04	<0.01		<0.01					<0.001		3.0E-04	4.20E-04			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	1.8E-03	<0.001
	11/3/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	2.3E-03	<0.001
	8/18/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	1.9E-03	<0.001
	6/8/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	1.7E-03	<0.001
	3/12/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	1.2E-03	<0.001
	11/17/2014	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		1.5E-03	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	1.4E-03	<0.001
	9/24/2014	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001

8.17.5 MKTF WELLS
Volatile Organic Compounds Analytical Results

			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	1,2-Dichloro ethane (EDC) (mg/L)	1,2-Dibro moethane (EDB) (mg/L)	Naphtha-lene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	Bromo methane (mg/L)	(Methyl ethyl ketone) 2-Butanone (mg/L)	Chloro benzene (mg/L)	Chloroethane (mg/L)	Chloro-form (mg/L)	Chloro-methane (mg/L)	cis-1,2-DCE (mg/L)	1,4-Dichloro benzene (mg/L)	1,1-Dichloro ethane (mg/L)	1,1-Dichloro ethene (mg/L)	1,2-Dichloro propane (mg/L)	2-Hexanone (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	4-Methyl-2-pentanone (mg/L)	Methylene Chloride (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)	Styrene (mg/L)	tert-Butyl benzene (mg/L)	Tetrachloro ethene (PCE) (mg/L)	1,2,4-Trichlorobe nzene (mg/L)	1,1,1-Trichloro ethane (mg/L)	1,1,2-Trichloro ethane (mg/L)	Trichloro ethene (TCE) (mg/L)	Vinyl Chloride (mg/L)
STANDARDS																																					
WQCC 20NMAC 6.2.3103			NE	NE	0.01	0.0001	NE	NE	NE	NE	NE	NE	NE	NE	0.1	NE	**0.005**	NE	**0.025**	**0.005**	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE	0.02	NE	**0.06**	0.01	NE	**0.001**
40 CFR 141.62 MCL			NE	NE	**0.005**	**0.00005**	NE	NE	NE	NE	NE	NE	NE	NE	**0.08**	NE	0.07	**0.075**	NE	0.007	**0.005**	NE	NE	NE	NE	**0.005**	NE	NE	NE	**0.1**	NE	**0.005**	**0.07**	0.2	**0.005**	**0.005**	0.002
NMED Tap Water (JUL 2015)			NE	NE	0.0275	0.0000746	**0.00165**	NE	NE	**14.1**	**0.00754**	**5.56**	**0.0776**	NE	0.00229	**0.0203**	0.0365	0.00481	0.0275	0.284	0.00437	NE	**0.447**	NE	**1.24**	0.106	NE	NE	NE	1.21	NE	NE	0.00398	8.0	0.000415	0.00282	0.000201
EPA RSL for Tap Water (MAY 2016)			**0.015**	**0.12**	0.017	0.0000075	1.7E-04	**1.1E-03**	**0.036**	14	0.0075	5.6	0.078	NE	0.00022	0.19	3.6E-02	4.8E-04	2.8E-03	0.28	0.001	**0.038**	NE	NE	6.3	0.011	**1.0**	**0.66**	**2.0**	1.2	**0.69**	0.011	0.0012	8.0	0.00028	0.00049	0.000019
Well ID	**DATE SAMPLED**	**METHOD**																																			
	6/4/2015	8260B	9.5E-03	2.3E-03	<0.001		**3.9E-03**	**4.2E-03**	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			8.4E-03	<0.001			<0.003	0.022	1.7E-03			<0.001		<0.001	<0.001	<0.001	<0.001
	3/17/2015	8260B	**0.034**	0.046	<0.001		**0.036**	**7.7E-03**	6.3E-03	<0.01		<0.01					<0.001		<0.001	<0.001			8.2E-03	<0.001			<0.003	0.035	1.8E-03			<0.001		<0.001	<0.001	<0.001	<0.001
	11/21/2014	8260B	**0.12**	0.05	<0.001		**0.04**	**0.038**	**0.059**	<0.01		<0.01					<0.001		<0.001	<0.001			5.1E-03	<0.001			6.1E-03	0.028	2.7E-03			<0.001		<0.001	<0.001	<0.001	<0.001
MKTF-36	11/8/2016	8260B	**0.06**	0.013	<0.01	<0.01	**0.7**	**0.4**	**0.48**	<0.1		<0.1					<0.01		<0.01	<0.01			0.028	<0.01			0.008	0.064	5.8E-03			<0.01		<0.01	<0.01	<0.01	<0.01
	8/18/2015	8260B	**0.032**	<0.01	<0.01		**0.82**	**0.38**	**0.65**	<0.1		<0.1					<0.01		<0.01	<0.01			0.033	<0.01			<0.03	0.073	<0.01			<0.01		<0.01	<0.01	<0.01	<0.01
	6/4/2015	8260B	**0.065**	<0.02	<0.02		**0.58**	**0.34**	**0.58**	<0.2		<0.2					<0.02		<0.02	<0.02			0.044	<0.02			<0.06	0.091	<0.02			<0.02		<0.02	<0.02	<0.02	<0.02
	3/17/2015	8260B	**0.031**	<0.01	<0.01		**0.43**	**0.26**	**0.51**	<0.1		<0.1					<0.01		<0.01	<0.01			0.03	<0.01			<0.03	0.081	<0.01			<0.01		<0.01	<0.01	<0.01	<0.01
	11/21/2014	8260B	**0.27**	0.062	<0.01		**0.59**	**0.34**	**0.53**	<0.1		<0.1					<0.1		<0.1	<0.1			0.041	<0.1			<0.03	0.099	<0.01			<0.01		<0.01	<0.01	<0.01	<0.01
MKTF-37	11/3/2016	8260B	**0.47**	**0.07**	**9.3E-03**	<0.01	**0.38**	**0.066**	**0.081**	<0.1		0.035					<0.01	7.1E-03	**0.026**	**0.11**			0.073	5.5E-03			0.027	0.078	0.011			<0.01		8.1E-03	<0.01	**0.2**	<0.01
	8/19/2015	8260B	**0.88**	**0.27**	**0.013**	<0.02	**1.5**	**0.15**	**0.3**	<0.1		<0.1					<0.01		0.018	**0.1**			0.2	0.017			0.11	0.18	0.035			<0.02		**1.013**	<0.02	**1.27**	<0.02
	6/4/2015	8260B	**0.95**	**0.33**	**0.011**	<0.01	**0.72**	**0.15**	**0.27**	<0.01		<0.1					<0.01		0.015	**0.1**			0.15	0.021			0.14	0.19	0.045			<0.01		0.019	<0.01	**0.17**	<0.01
	3/17/2015	8260B	**0.24**	0.11	**9.1E-03**	<0.001	**0.088**	**0.03**	**0.038**	<0.01		<0.01					<0.001		0.018	**0.081**			0.047	4.5E-03			0.02	0.056	7.3E-03			<0.001		8.7E-03	2.2E-03	**0.12**	<0.001
MKTF-37	11/21/2014	8260B	**0.51**	**0.14**	**0.017**	**0.0015** [1]	**0.35**	**0.047**	**0.084**	<0.01		<0.01					<0.001		**0.034**	**0.21**			0.078	4.8E-03			0.026	0.082	0.011			<0.001		<0.001	1.7E-03	**0.3**	<0.001
MKTF-38	11/1/2016	8260B	1.2E-04	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01	<0.003	<0.01			1.3E-04		2.4E-03	3.7E-04	2.9E-03	5.3E-04			<0.001	<0.001			<0.003	2.1E-04	<0.001			2.0E-04	2.0E-04	<0.001	<0.001	2.2E-04	<0.001
	9/13/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.002	7.9E-04	5.8E-04	<0.01	1.1E-03	<0.01					1.8E-03		2.1E-03	4.9E-04			<0.001	<0.001			<0.003	<0.001	<0.001			2.1E-04		<0.001	<0.001	0.0002	<0.001
	6/8/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.002	**5.2E-03**	4.3E-03	<0.01		<0.01					2.3E-03		2.2E-03	3.9E-04			<0.001	<0.001			<0.003	<0.001	<0.001			9.0E-04		<0.001	<0.001	2.3E-04	6.7E-04
	2/29/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01					1.3E-03		7.3E-04	1.1E-04			<0.001	<0.001			<0.003	<0.001	<0.001			1.1E-03		<0.001	<0.001	<0.001	3.7E-04
	11/9/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	8/24/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	6/10/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	3/16/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	11/21/2014	8260B	4.6E-03	1.5E-03	<0.001		5.5E-03	**8.8E-03**	9.8E-03	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	1.4E-03			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	1.1E-03	<0.001
MKTF-39	11/1/2016	8260B	**0.024**	<0.005	<0.005	<0.005	**0.086**	**0.15**	**0.049**	<0.05	<0.015	<0.05			<0.005		<0.005		<0.005	<0.005			0.023	5.4E-03		<0.015	7.6E-03	0.028	0.012		7.2E-04	<0.005		<0.005	<0.005	<0.005	<0.001
	9/13/2016	8260B	**0.039**	<0.005	<0.005	<0.005	**0.08**	**0.16**	**0.056**	<0.05	4.6E-03	<0.05			<0.005		1.4E-03		<0.005	<0.005			0.025	7.9E-03		<0.015	1.0E-02	0.031	0.016		7.1E-04	<0.005		<0.005	<0.005	<0.005	**0.003**
	6/8/2016	8260B	**0.082**	2.1E-04	<0.001	<0.001	**0.097**	**0.19**	**0.075**	<0.01		<0.01			<0.001		8.6E-04		9.9E-04	4.8E-04			0.024	8.0E-03		<0.003	0.01	0.033	0.015		<0.001	<0.001		<0.001	<0.001	<0.001	**2.1E-03**
	3/3/2016	8260B	**0.066**	<0.001	<0.001	<0.001	**73**	**0.14**	**0.053**	<0.01		<0.01			1.7E-04		1.1E-03		1.7E-04	3.2E-04			0.024	7.4E-03		1.9E-04	7.4E-03	0.03	0.013		3.6E-04	<0.001		<0.001	<0.001	<0.001	**2.4E-03**
	11/9/2015	8260B	**0.085**	<0.001	<0.001		**0.11**	**0.18**	**0.063**	<0.01		<0.01			<0.001		<0.001		<0.001	<0.001			0.024	8.4E-03		<0.003	6.6E-03	0.027	0.012			<0.001		<0.001	<0.001	<0.001	<0.001
	8/23/2015	8260B	**0.098**	<0.001	<0.001		**0.1**	**0.11**	**0.04**	<0.01		<0.01			<0.001		<0.001		<0.001	<0.001			0.02	7.3E-03		<0.003	3.8E-03	0.023	9.7E-03			<0.001		<0.001	<0.001	<0.001	<0.001
	6/10/2015	8260B	**0.12**	<0.002	<0.002		**0.096**	**0.13**	**0.066**	<0.02		<0.02			<0.002		<0.002		<0.002	<0.002			0.02	8.1E-03		<0.006	7.1E-03	0.028	1.2E-02			<0.002		<0.002	<0.002	<0.002	<0.002
	3/16/2015	8260B	**0.064**	<0.002	<0.002		**0.044**	**0.091**	0.013	<0.02		<0.02			2.2E-03		<0.002		<0.002	<0.002			0.011	5.2E-03		**6.3E-03**	<0.006	0.014	5.7E-03			<0.002		<0.002	<0.002	<0.002	<0.002
	11/18/2014	8260B	**0.043**	<0.005	<0.005		**0.12**	**0.17**	**0.13**	<0.05		<0.05			<0.005		<0.005		<0.005	<0.005			0.015	<0.005			<0.015	0.019	5.5E-03			<0.005		<0.005	<0.005	<0.005	<0.005
MKTF-40	10/31/2016	8260B	<0.001	<0.001	3.7E-04	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01			2.0E-04		<0.001		6.4E-04	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	9/8/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01			<0.001		<0.001		6.5E-03	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	6/9/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01			<0.001		<0.001		6.2E-04	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	2/23/2016	8260B	<0.001	<0.001	3.7E-04	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01			1.9E-04		<0.001		8.2E-04	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	11/4/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	8/21/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	6/10/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	3/11/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	11/21/2014	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
MKTF-41	10/31/2016	8260B	<0.001	<0.001	2.4E-03	<0.01	<0.002	<0.004	<0.004	<0.01		<0.01			1.4E-04		<0.001		2.7E-03	**5.4E-03**			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	5.5E-04	<0.001	<0.001
	9/9/2016	8260B/8011/504.1/EDB	<0.001	<0.001	2.4E-03	<0.01	<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		2.5E-03	**6.1E-03**			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	5.3E-04	<0.001	<0.001
	6/9/2016	8260B	<0.001	<0.001	2.2E-03	<0.00001	<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		2.7E-03	3.4E-03			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	5.4E-04	<0.001	<0.001
	2/24/2016	8260B	<0.001	<0.001	1.9E-03	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		2.6E-03	4.1E-03			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	2.8E-04	<0.001	<0.001
	11/5/2015	8260B	<0.001	<0.001	2.3E-03		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		3.1E-03	3.8E-03			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	8/21/2015	8260B	<0.001	<0.001	1.3E-03		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		1.8E-03	2.1E-03			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	6/9/2015	8260B	<0.001	<0.001	1.3E-03		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		1.7E-03	1.9E-03			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	3/12/2015	8260B	<0.001	<0.001	1.3E-03		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		1.8E-03	1.6E-03			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	11/18/2014	8260B	<0.001	<0.001	0.002		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		3.6E-03	3.8E-03			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
MKTF-42	10/31/2016	8260B	5.3E-03	2.7E-03	1.1E-03	<0.001	**0.024**	**0.013**	7.2E-03	0.03	<0.003	0.01					<0.001		<0.001	<0.001		4.2E-03	5.4E-03	2.3E-03	3.7E-03		<0.003	6.8E-04	3.4E-04			<0.001		<0.001	<0.001	<0.001	<0.001
	9/9/2016	8260B	6.6E-03	2.9E-03	9.8E-04	<0.001	**0.026**	**0.013**	8.3E-03	0.031	<0.003	8.3E-03					<0.001		<0.001	<0.001		2.2E-03	5.8E-04	1.8E-03	3.2E-03		<0.003	7.2E-04	4.1E-04			<0.001		<0.001	<0.001	<0.001	<0.001
	6/9/2016	8260B	<0.001	<0.001	<0.001	1.2E-04	<0.002	<0.004	<0.004	<0.01	<0.003	<0.01					<0.001		<0.001	<0.001		<0.01	<0.001	<0.001	<0.01		<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	2/24/2016	8260B	6.6E-03	3.8E-03	7.9E-04	<0.001	**0.028**	**0.016**	0.011	0.023	1.6E-03	5.6E-03					<0.001		<0.001	<0.001		1.6E-03	3.1E-04	1.1E-03	1.8E-03		<0.003	3.9E-04	1.7E-04			<0.001		<0.001	<0.001	<0.001	<0.001
	11/5/2015	8260B	8.3E-03	0.005	1.1E-03		**0.032**	**0.028**	0.013	0.014		<0.01					<0.001		<0.001	<0.001			<0.001	1.1E-03			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	8/21/2015	8260B	0.006	4.1E-03	<0.001		**0.021**	**0.016**	**7.9E-03**	0.014		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	6/9/2015	8260B	3.4E-03	2.8E-03	<0.001		**0.009**	**7.5E-03**	**4.2E-03**	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	3/11/2015	8260B	3.9E-03	2.6E-03	<0.001		**0.014**	**7.5E-03**	**6.1E-03**	0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	11/18/2014	8260B	**0.027**	<0.01	<0.01		**0.035**	**7.3E-02**	**0.058**	<0.1		<0.1					<0.01		<0.01	<0.01			<0.01	<0.01			<0.03	<0.01	<0.01			<0.01		<0.01	<0.01	<0.01	<0.01
MKTF-43	10/31/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	0.007		0.01			1.0E-04		<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	9/9/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01			<0.001		<0.001		<0.001	<0.001			<0.001	<0.001			<0.001	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	6/9/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01			<0.001		<0.001		<0.001	<0.001			<0.001	<0.001			<0.001	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	2/24/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	2.3E-03		<0.01			1.8E-04		<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	11/5/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	8/21/2015	8260B	<0.001	<0.001	<0.001		<0.002	**5.9E-03**	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	6/10/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	3/11/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	11/18/2014	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	3.6E-03			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
MKTF-44	11/1/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		3.5E-04	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	9/9/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	6/9/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	2/24/2016	8260B	<0.001	<0.001	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	11/9/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	8/17/2015	8260B	<0.001	<0.001	<0.001		<0.002	<0.004	<0.004	<0.01		<0.01					<0.001		<0.001	<0.001			<0.001	<0.001			<0.003	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
	6/10/2015	8260B	<0.002	<0.002	<0.002		<0.004	<0.008	<0.008	<0.02		<0.02					<0.002		<0.002	<0.002			<0.002	<0.002			<0.006	<0.002	<0.002			<0.002		<0.002	<0.002	<0.002	<0.002
	3/12/2015	8260B	<0.002	<0.002	<0.002		<0.004	<0.008	<0.008	<0.02		<0.02					<0.002		<0.002	<0.002			<0.002	<0.002			<0.006	<0.002	<0.002			<0.002		<0.002	<0.002	<0.002	<0.002
	11/21/2014	8260B	<0.002	<0.002	<0.002		<0.004	<0.008	<0.008	<0.02		<0.02					<0.002		<0.002	<0.002			<0.002	<0.002			<0.006	<0.002	<0.002			<0.002		<0.002	<0.002	<0.002	<0.002

DEFINITIONS
NE = Not established
NA = Not analyzed
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
NMED Risk Assessment Guidance for Investigations and Remediations Table A-1

NOTES

SECTION 9

WELL DATA DTW/ DTB MEASUREMENTS

The 2016 Well Data DTB/DTW Measurements has been updated with survey information submitted to and approved by NMED per notification received “Approval with Modifications, Requirement to Resurvey Groundwater Monitoring Wells and Recovery Wells issued on September 26, 2012. Western was required to resurvey the monitoring wells due to discrepancies found in applicable standards ground level elevation, well casing elevation, well casing bottom elevation and stick up lengths. All monitoring wells were surveyed by a licensed professional surveyor, DePauli Engineering on June 7, 2011, April 2014, September 2014, December 2014, and January 2016. The Well Data Table is attached as Section 9.1.

The additional wells from the hydrocarbon seep (MKTF series) and the two new wells STP1-NW and STP1-SW were surveyed by Hammon Enterprises Inc., professional surveyor on September 15, 2014, December 16, 2014 and on December 16, 2014.

SECTION 9 - TABLE 9.1 Ground Water Measurements

WELL DATA 2016 ANNUAL/QUARTERLY SAMPLING
DTB/DTW MEASUREMENTS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	2011 Survey [1] Ground Level Elevations (ft)	2011 Survey [1] Well Casing Rim Elevations (ft)	2011 Survey [1] Ground Elevation Inside Steel Sleeve (ft)	Stick-up length (ft)	2011 Survey [1] Well Casing Bottom Elevations (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH [2] Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation [3] (ft)	Corrected Water Table [4] Elevation (factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)	2012 Stratigraphic unit in which screen exists
11/10/2003	BW-1A [5]	9/8/2016	2.00	6,883.17	6,885.12	6,884.93	1.95	6,847.50	46.06	N/A	N/A	DRY	DRY	N/A	30 - 35	Upper Sand
10/28/2003	BW-1B [5]	9/8/2016	2.00	6,883.17	6,885.78	6,885.72	2.61	6,818.33	76.29	N/A	N/A	DRY	DRY	N/A	54.6 - 64.6	Chinle/Alluvium Interface
11/10/2003	BW-1C [5]	9/8/2016	2.00	6,883.17	6,885.68	6,885.64	2.51	6,749.29	145.29	N/A	N/A	12.55	6,873.13	N/A	125 -135	Sonsela
11/10/2003	BW-2A	9/8/2016	2.00	6,871.88	6,874.69	6,870.45	2.81	6,807.12	67.57	N/A	N/A	32.29	6,842.40	N/A	55 - 65	Upper Sand
10/28/2003	BW-2B	9/8/2016	2.00	6,871.66	6,874.50	6,870.06	2.84	6,782.24	92.26	N/A	N/A	27.84	6,846.66	N/A	80 - 90	Chinle/Alluvium Interface
10/28/2003	BW-2C	9/8/2016	2.00	6,872.90	6,875.30	6,872.02	2.40	6,722.46	152.84	N/A	N/A	20.63	6,854.67	N/A	139.5 - 149.5	Sonsela
6/15/2004	BW-3A	9/8/2016	2.00	6,875.94	6,878.39	6,875.08	2.45	6,826.04	52.35	N/A	N/A	DRY	DRY	N/A	39.5 - 49.5	Upper Sand
10/15/2003	BW-3B	9/8/2016	2.00	6,876.16	6,878.59	6,875.41	2.43	6,809.19	69.40	N/A	N/A	33.42	6,845.17	N/A	63 - 73	Chinle/Alluvium Interface
7/20/2004	BW-3C	9/8/2016	2.00	6,875.72	6,877.95	6,875.27	2.23	6,723.40	154.55	N/A	N/A	8.30	6,869.65	N/A	144.5 - 154.5	Sonsela
9/25/1981	OW-11	9/9/2016	4.00	6,922.05	6,923.51	6,921.80	1.46	6,857.72	65.79	N/A	N/A	18.79	6,904.72	N/A	43 - 65	Sonsela
12/15/1980	OW-12	9/8/2016	4.00	6,939.57	6,940.69	6,939.04	1.12	6,811.84	128.85	N/A	N/A	47.23	6,893.46	N/A	117.8 - 137.8	Sonsela
10/14/1981	MW-1	9/7/2016	5.00	6,876.63	6,878.12	6,876.79	1.49	6,747.29	130.83	N/A	N/A	7.01	6,871.11	N/A	117.72 - 127.72	Sonsela
10/15/1981	MW-2	9/7/2016	5.00	6,878.39	6,880.30	6,878.41	1.91	6,742.82	137.48	N/A	N/A	14.10	6,866.20	N/A	112 - 122	Sonsela
10/16/1981	MW-4	9/7/2016	5.00	6,879.89	6,881.63	6,879.34	1.74	6,759.91	121.72	N/A	N/A	7.38	6,874.25	N/A	101 - 121	Sonsela
7/21/1986	MW-5	9/7/2016	4.00	6,880.20	6,882.83	6,881.77	2.63	6,752.00	130.83	N/A	N/A	13.50	6,869.33	N/A	115 - 125	Sonsela
9/26/1985	SMW-2	9/9/2016	2.00	6,881.63	6,883.97	6,879.07	2.34	6,831.17	52.80	N/A	N/A	24.84	6,859.13	N/A	34.31 - 54.31	Chinle/Alluvium and Upper Sand
9/25/1985	SMW-4	9/6/2016	2.00	6,877.63	6,879.52	6,875.72	1.89	6,809.84	69.68	N/A	N/A	29.00	6,850.52	N/A	51.7 - 71.7	Chinle/Alluvium Interface
10/5/2009	OW-50	9/9/2016	2.00	6,912.63	6,914.21	6,911.46	1.58	6,850.21	64.00	N/A	N/A	16.19	6,898.02	N/A	48 - 63	Chinle/Alluvium Interface
10/5/2009	OW-52	9/9/2016	2.00	6,906.53	6,907.68	6,905.31	1.15	6,829.94	77.74	N/A	N/A	15.28	6,892.40	N/A	64 - 79	Chinle/Alluvium Interface
1/5/1981	OW-1*	3/3/2016	4.00	6,866.32	6,866.62	6,866.44	0.30	6,772.07	94.55	N/A	N/A	0.00	6,866.62	N/A	89.3 - 99.3	Sonsela
		6/6/2016	4.00	6,866.32	6,866.62	6,866.44	0.30	6,772.07	94.55	N/A	N/A	0.00	6,866.62	N/A	89.3 - 99.3	Sonsela
		9/6/2016	4.00	6,866.32	6,866.62	6,866.44	0.30	6,772.07	94.55	N/A	N/A	0.00	6,866.62	N/A	89.3 - 99.3	Sonsela
		11/15/2016	4.00	6,866.32	6,866.62	6,866.44	0.30	6,772.07	94.55	N/A	N/A	1.72	6,864.90	N/A	89.3 - 99.3	Sonsela
11/25/1980	OW-10*	3/3/2016	4.00	6,873.67	6,874.91	6,872.59	1.24	6,814.58	60.33	N/A	N/A	1.42	6,873.49	N/A	40 - 60	Sonslea
		6/6/2016	4.00	6,873.67	6,874.91	6,872.59	1.24	6,814.58	60.33	N/A	N/A	1.22	6,873.69	N/A	40 - 60	Sonsela
		9/6/2016	4.00	6,873.67	6,874.91	6,872.59	1.24	6,814.58	60.33	N/A	N/A	1.70	6,873.21	N/A	40 - 60	Sonsela
		11/15/2016	4.00	6,873.67	6,874.91	6,872.59	1.24	6,814.58	60.33	N/A	N/A	0.54	6,874.37	N/A	40 - 60	Sonsela
12/10/1980	OW-13	3/4/2016	4.00	6,918.95	6,920.07	6,915.33	1.12	6,820.92	99.15	N/A	N/A	21.43	6,898.64	N/A	78.2 - 98.2	Sonsela
		6/6/2016	4.00	6,918.95	6,920.07	6,915.33	1.12	6,820.92	99.15	N/A	N/A	21.45	6,898.62	N/A	78.2 - 98.2	Sonsela
		8/31/2016	4.00	6,918.95	6,920.07	6,915.33	1.12	6,820.92	99.15	N/A	N/A	21.94	6,898.13	N/A	78.2 - 98.2	Sonsela
		11/15/2016	4.00	6,918.95	6,920.07	6,915.33	1.12	6,820.92	99.15	N/A	N/A	21.68	6,898.39	N/A	78.2 - 98.2	Sonsela
12/17/1980	OW-14	3/4/2016	4.00	6,924.55	6,926.65	6,924.40	2.10	6,880.13	46.52	N/A	N/A	23.20	6,903.45	N/A	35 - 45	Chinle/Alluvium Interface
		6/6/2016	4.00	6,924.55	6,926.65	6,924.40	2.10	6,880.13	46.52	N/A	N/A	23.18	6,903.47	N/A	35 - 45	Chinle/Alluvium Interface
		8/31/2016	4.00	6,924.55	6,926.65	6,924.40	2.10	6,880.13	46.52	N/A	N/A	23.50	6,903.15	N/A	35 - 45	Chinle/Alluvium Interface
		11/15/2016	4.00	6,924.55	6,926.65	6,924.40	2.10	6,880.13	46.52	N/A	N/A	23.28	6,903.37	N/A	35 - 45	Chinle/Alluvium Interface

SECTION 9 - TABLE 9.1 Ground Water Measurements

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	2011 Survey [1] Ground Level Elevations (ft)	2011 Survey [1] Well Casing Rim Elevations (ft)	2011 Survey [1] Ground Elevation Inside Steel Sleeve (ft)	Stick-up length (ft)	2011 Survey [1] Well Casing Bottom Elevations (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH [2] Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation [3] (ft)	Corrected Water Table [4] Elevation (factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)	2012 Stratigraphic unit in which screen exists
8/23/1996	OW-29	3/4/2016	4.00	6,913.89	6,917.00	6,912.09	3.11	6,865.92	51.08	N/A	N/A	18.15	6,898.85	N/A	37.5 - 47.5	Chinle/Alluvium Interface
		6/6/2016	4.00	6,913.89	6,917.00	6,912.09	3.11	6,865.92	51.08	N/A	N/A	18.16	6,898.84	N/A	37.5 - 47.5	Chinle/Alluvium Interface
	OW-29	8/31/2016	4.00	6,913.89	6,917.00	6,912.09	3.11	6,865.92	51.08	N/A	N/A	18.60	6,898.40	N/A	37.5 - 47.5	Chinle/Alluvium Interface
		11/15/2016	4.00	6,913.89	6,917.00	6,912.09	3.11	6,865.92	51.08	N/A	N/A	18.23	6,898.77	N/A	37.5 - 47.5	Chinle/Alluvium Interface
8/28/1996	OW-30	3/8/2016	4.00	6,921.81	6,924.69	6,919.84	2.88	6,874.79	49.90	N/A	N/A	22.55	6,902.14	N/A	37.9 - 47.9	Chinle/Alluvium Interface
		6/6/2016	4.00	6,921.81	6,924.69	6,919.84	2.88	6,874.79	49.90	N/A	N/A	22.64	6,902.05	N/A	37.9 - 47.9	Chinle/Alluvium Interface
		8/31/2016	4.00	6,921.81	6,924.69	6,919.84	2.88	6,874.79	49.90	N/A	N/A	23.30	6,901.39	N/A	37.9 - 47.9	Chinle/Alluvium Interface
		11/14/2016	4.00	6,921.81	6,924.69	6,919.84	2.88	6,874.79	49.90	N/A	N/A	22.75	6,901.94	N/A	37.9 - 47.9	Chinle/Alluvium Interface
7/8/2004	GWM-1	3/1/2016	2.00	6,910.22	6,912.61	6,908.36	2.39	6,886.41	26.20	22.84	0.04	22.88	6,889.73	6889.762	17.5 - 23.5	Chinle/Alluvium Interface
		6/7/2016	2.00	6,910.22	6,912.61	6,908.36	2.39	6,886.41	26.20	21.36	0.03	21.39	6,891.22	6891.244	17.5 - 23.5	Chinle/Alluvium Interface
		9/13/2016	2.00	6,910.22	6,912.61	6,908.36	2.39	6,886.41	26.20	21.29	N/A	N/A	N/A	N/A	17.5 - 23.5	Chinle/Alluvium Interface
		11/14/2016	2.00	6,910.22	6,912.61	6,908.36	2.39	6,886.41	26.20	21.50	0.02	21.52	6,891.09	6891.106	17.5 - 23.5	Chinle/Alluvium Interface
9/25/2005	GWM-2	3/1/2016	2.00	6,910.32	6,913.09	6,908.05	2.77	6,894.28	18.81	N/A	N/A	DRY	DRY	N/A	3.2 - 16.2	Chinle/Alluvium Interface
		6/7/2016	2.00	6,910.32	6,913.09	6,908.05	2.77	6,894.28	18.81	N/A	N/A	DRY	DRY	N/A	3.2 - 16.2	Chinle/Alluvium Interface
		9/13/2016	2.00	6,910.32	6,913.09	6,908.05	2.77	6,894.28	18.81	N/A	N/A	DRY	DRY	N/A	3.2 - 16.2	Chinle/Alluvium Interface
		11/14/2016	2.00	6,910.32	6,913.09	6,908.05	2.77	6,894.28	18.81	N/A	N/A	DRY	DRY	N/A	3.2 - 16.2	Chinle/Alluvium Interface
9/25/2005	GWM-3	3/1/2016	2.00	6,907.35	6,910.25	6,905.48	2.90	6,892.45	17.80	N/A	N/A	DRY	DRY	N/A	3 - 15	Chinle/Alluvium Interface
		6/7/2016	2.00	6,907.35	6,910.25	6,905.48	2.90	6,892.45	17.80	N/A	N/A	DRY	DRY	N/A	3 - 15	Chinle/Alluvium Interface
		9/13/2016	2.00	6,907.35	6,910.25	6,905.48	2.90	6,892.45	17.80	N/A	N/A	DRY	DRY	N/A	3 - 15	Chinle/Alluvium Interface
		11/14/2016	2.00	6,907.35	6,910.25	6,905.48	2.90	6,892.45	17.80	N/A	N/A	DRY	DRY	N/A	3 - 15	Chinle/Alluvium Interface
3/14/2008	NAPIS-1	3/1/2016	2.00	6,913.62	6,913.86	6,913.56	0.24	6,900.33	13.53	N/A	N/A	6.65	6,907.21	N/A	3.7 - 13.7	Chinle/Alluvium Interface
		6/7/2016	2.00	6,913.62	6,913.86	6,913.56	0.24	6,900.33	13.53	N/A	N/A	6.64	6,907.22	N/A	3.7 - 13.7	Chinle/Alluvium Interface
		9/1/2016	2.00	6,913.62	6,913.86	6,913.56	0.24	6,900.33	13.53	N/A	N/A	6.99	6,906.87	N/A	3.7 - 13.7	Chinle/Alluvium Interface
		11/14/2016	2.00	6,913.62	6,913.86	6,913.56	0.24	6,900.33	13.53	N/A	N/A	6.82	6,907.04	N/A	3.7 - 13.7	Chinle/Alluvium Interface
3/14/2008	NAPIS-2 [6]	3/1/2016	2.00	6,913.40	6,912.65	6,912.54	-0.75	6,899.04	13.61	N/A	N/A	7.65	6,905.00	N/A	4.2 - 14.2	Chinle/Alluvium Interface
		6/7/2016	2.00	6,913.40	6,912.65	6,912.54	-0.75	6,899.04	13.61	N/A	N/A	6.40	6,906.25	N/A	4.2 - 14.2	Chinle/Alluvium Interface
		9/1/2016	2.00	6,913.40	6,912.65	6,912.54	-0.75	6,899.04	13.61	N/A	N/A	8.84	6,903.81	N/A	4.2 - 14.2	Chinle/Alluvium Interface
		11/14/2016	2.00	6,913.40	6,912.65	6,912.54	-0.75	6,899.04	13.61	N/A	N/A	8.20	6,904.45	N/A	4.2 - 14.2	Chinle/Alluvium Interface
3/14/2008	NAPIS-3 [6]	3/1/2016	2.00	6,913.38	6,912.76	6,912.53	-0.62	6,882.34	30.42	N/A	N/A	8.55	6,904.21	N/A	25.4 - 30-4	Chinle/Alluvium Interface
		6/7/2016	2.00	6,913.38	6,912.76	6,912.53	-0.62	6,882.34	30.42	N/A	N/A	7.72	6,905.04	N/A	25.4 - 30-4	Chinle/Alluvium Interface
		9/1/2016	2.00	6,913.38	6,912.76	6,912.53	-0.62	6,882.34	30.42	N/A	N/A	9.10	6,903.66	N/A	25.4 - 30-4	Chinle/Alluvium Interface
		11/14/2016	2.00	6,913.38	6,912.76	6,912.53	-0.62	6,882.34	30.42	N/A	N/A	9.11	6,903.65	N/A	25.4 - 30-4	Chinle/Alluvium Interface
6/11/2007	KA-3 [6]	3/3/2016	2.00	6,913.29	6,912.52	6,912.20	-0.77	6,889.32	23.20	N/A	N/A	7.68	6,904.84	N/A	15 - 25	Chinle/Alluvium Interface
		6/6/2016	2.00	6,913.29	6,912.52	6,912.20	-0.77	6,889.32	23.20	N/A	N/A	7.42	6,905.10	N/A	15 - 25	Chinle/Alluvium Interface
		9/1/2016	2.00	6,913.29	6,912.52	6,912.20	-0.77	6,889.32	23.20	N/A	N/A	8.13	6,904.39	N/A	15 - 25	Chinle/Alluvium Interface
		11/14/2016	2.00	6,913.29	6,912.52	6,912.20	-0.77	6,889.32	23.20	N/A	N/A	8.28	6,904.24	N/A	15 - 25	Chinle/Alluvium Interface
7/17/2012	OAPIS-1	3/1/2016	2.00	6,914.37	6,916.73	6,916.50	2.36	6,888.37	28.30	N/A	N/A	11.86	6,904.87	N/A	16 - 26	Chinle/Alluvium Interface
		6/7/2016	2.00	6,914.37	6,916.73	6,916.50	2.36	6,888.37	28.30	N/A	N/A	11.50	6,905.23	N/A	17 - 26	Chinle/Alluvium Interface
		9/1/2016	2.00	6,914.37	6,916.73	6,916.50	2.36	6,888.37	28.30	N/A	N/A	11.32	6,905.41	N/A	18 - 26	Chinle/Alluvium Interface
		11/14/2016	2.00	6,914.37	6,916.73	6,916.50	2.36	6,888.37	28.30	N/A	N/A	11.44	6,905.29	N/A	19 - 26	Chinle/Alluvium Interface

SECTION 9 - TABLE 9.1 Ground Water Measurements

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	2011 Survey [1] Ground Level Elevations (ft)	2011 Survey [1] Well Casing Rim Elevations (ft)	2011 Survey [1] Ground Elevation Inside Steel Sleeve (ft)	Stick-up length (ft)	2011 Survey [1] Well Casing Bottom Elevations (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH [2] Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation [3] (ft)	Corrected Water Table [4] Elevation (factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)	2012 Stratigraphic unit in which screen exists
3/28/1995	RW-1	3/4/2016	4.00	6,942.86	6,946.06	6,941.25	3.20	6,903.02	43.04	28.05	2.50	30.55	6,915.51	6917.51	25 - 40	Chinle/Alluvium Interface
		6/8/2016	4.00	6,942.86	6,946.06	6,941.25	3.20	6,903.02	43.04	27.98	3.82	31.80	6,914.26	6917.316	25 - 40	Chinle/Alluvium Interface
		9/13/2016	4.00	6,942.86	6,946.06	6,941.25	3.20	6,903.02	43.04	27.90	4.14	32.04	6,914.02	6917.332	25 - 40	Chinle/Alluvium Interface
		11/16/2016	4.00	6,942.86	6,946.06	6,941.25	3.20	6,903.02	43.04	27.80	3.10	30.90	6,915.16	6917.64	25 - 40	Chinle/Alluvium Interface
3/29/1995	RW-2	3/4/2016	4.00	6,926.40	6,928.53	6,925.02	2.13	6,888.73	39.80	0.00	0.00	22.45	6,906.08	6906.08	26.1 - 36.1	Chinle/Alluvium Interface
		6/8/2016	4.00	6,926.40	6,928.53	6,925.02	2.13	6,888.73	39.80	0.00	0.00	22.31	6,906.22	6906.22	26.1 - 36.1	Chinle/Alluvium Interface
		9/13/2016	4.00	6,926.40	6,928.53	6,925.02	2.13	6,888.73	39.80	0.00	0.00	22.47	6,906.06	6906.06	26.1 - 36.1	Chinle/Alluvium Interface
		11/16/2016	4.00	6,926.40	6,928.53	6,925.02	2.13	6,888.73	39.80	0.00	0.00	22.22	6,906.31	6906.31	26.1 - 36.1	Chinle/Alluvium Interface
8/27/1997	RW-5	3/4/2016	4.00	6,941.53	6,943.57	6,940.82	2.04	6,903.98	39.59	0.00	0.00	28.22	6,915.35	6915.35	29.5 - 39.5	Chinle/Alluvium Interface
		6/7/2016	4.00	6,941.53	6,943.57	6,940.82	2.04	6,903.98	39.59	0.00	0.00	28.22	6,915.35	6915.35	29.5 - 39.5	Chinle/Alluvium Interface
		9/13/2016	4.00	6,941.53	6,943.57	6,940.82	2.04	6,903.98	39.59	0.00	0.00	27.70	6,915.87	6915.87	29.5 - 39.5	Chinle/Alluvium Interface
		11/16/2016	4.00	6,941.53	6,943.57	6,940.82	2.04	6,903.98	39.59	0.00	0.00	27.40	6,916.17	6916.17	29.5 - 39.5	Chinle/Alluvium Interface
8/27/1997	RW-6	3/4/2016	4.00	6,941.96	6,944.01	6,941.49	2.05	6,903.11	40.90	0.00	0.00	28.25	6,915.76	6915.76	28.5 - 38.5	Chinle/Alluvium Interface
		6/7/2016	4.00	6,941.96	6,944.01	6,941.49	2.05	6,903.11	40.90	0.00	0.00	28.24	6,915.77	6915.77	28.5 - 38.5	Chinle/Alluvium Interface
		9/13/2016	4.00	6,941.96	6,944.01	6,941.49	2.05	6,903.11	40.90	0.00	0.00	27.99	6,916.02	6916.02	28.5 - 38.5	Chinle/Alluvium Interface
		11/16/2016	4.00	6,941.96	6,944.01	6,941.49	2.05	6,903.11	40.90	0.00	0.00	27.72	6,916.29	6916.29	28.5 - 38.5	Chinle/Alluvium Interface
5/6/2014	STP1-NW	3/1/2016	2.00	6,904.50	6,904.47	6,903.95	-0.03	6,854.47	50.00	N/A	N/A	20.55	6,883.92	N/A	20 - 50	Chinle/Alluvium Interface
		6/7/2016	2.00	6,904.50	6,904.47	6,903.95	-0.03	6,854.47	50.00	N/A	N/A	20.89	6,883.58	N/A	20 - 50	Chinle/Alluvium Interface
		9/9/2016	2.00	6,904.50	6,904.47	6,903.95	-0.03	6,854.47	50.00	N/A	N/A	21.20	6,883.27	N/A	20 - 50	Chinle/Alluvium Interface
		11/14/2016	2.00	6,904.50	6,904.47	6,903.95	-0.03	6,854.47	50.00	N/A	N/A	21.02	6,883.45	N/A	20 - 50	Chinle/Alluvium Interface
5/6/2014	STP1-SW	3/8/2016	2.00	6,912.40	6,912.38	6,911.95	-0.02	6,880.38	29.10	N/A	N/A	DRY	N/A	N/A	15 - 30	Chinle/Alluvium Interface
		6/7/2016	2.00	6,912.40	6,912.38	6,911.95	-0.02	6,880.38	29.10	N/A	N/A	DRY	N/A	N/A	15 - 30	Chinle/Alluvium Interface
		9/9/2016	2.00	6,912.40	6,912.38	6,911.95	-0.02	6,880.38	29.10	N/A	N/A	DRY	N/A	N/A	15 - 30	Chinle/Alluvium Interface
		11/14/2016	2.00	6,912.40	6,912.38	6,911.95	-0.02	6,880.38	29.10	N/A	N/A	DRY	N/A	N/A	15 - 30	Chinle/Alluvium Interface

DEFINITIONS:

DTB - Depth to Bottom
DTW - Depth to Water
SPH = Separate Phase Hydrocarbons
* Wells also checked for Artesian flow conditions.
N/A = Not Available
Negative number in Stick up Length column indicates well is flushmount and located at or below ground level.
Depth to Water Column - if 0.00 is indicated - means water is at top of casing (full) under artesian flow conditions.
Dry indicates no water was detected.

NOTES:

1. *Elevation data from NMED's "Approval with Modifications, Requirement to Resurvey Ground water Monitoring Wells and Recovery Wells", dated 9/26/12.*
2. *Ground water elevation - Depth to SPH = SPH Column Thickness.*
3. *2011 Survey Well Casing Rim elevation - depth to water measurement.*
4. *Corrected Water Table Elevation applies only if SPH thickness column measurement exists. (0.8 X SPH thickness + Ground Water Elevation)*
5. *Casings extended due to increased height from berm work. Changes in ground elevation, casing rim elevations, and well bottom casing elevations. Resurveyed on 9/15/2014 by HEI (Hammon Enterprises Inc.).*
6. *Napis-2, Napis-3, KA-3 - flush mount casings extended to prevent water from entering inside the vault on August 8, 2016.*

SECTION 9 - TABLE 9.2 MKTF WELLS

WELL DATA 2016 ANNUAL/QUARTERLY SAMPLING
DTB/DTW MEASUREMENTS FOR MKTF 1 - MKTF 45 WELLS

Date of Installation	Date of Survey [1]	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Ground Elevation Inside Steel Sleeve (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to [2] SPH (ft)	SPH [3] Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected [4] Water Table Elevation (Factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
11/14/2013	1/21/2014	MKTF-01	2/24/2016	4.00	6,918.28	6,920.67	6,920.67	2.39	6,903.25	17.42	N/A	N/A	5.84	6,914.83	N/A	5 - 15	Chinle/Alluvium Interface
			6/10/2016	4.00	6,918.28	6,920.67	6,920.67	2.39	6,903.25	17.42	7.02	1.16	8.18	6,912.49	N/A	5 - 15	Chinle/Alluvium Interface
			9/7/2016	4.00	6,918.28	6,920.67	6,920.67	2.39	6,903.25	17.42	7.12	1.50	8.62	6,912.05	6913.25	5 - 15	Chinle/Alluvium Interface
			10/28/2016	4.00	6,918.28	6,920.67	6,920.67	2.39	6,903.25	17.42	7.53	1.35	8.88	6,911.79	6912.87	5 - 15	Chinle/Alluvium Interface
11/14/2013	1/21/2014	MKTF-02	2/24/2016	4.00	6,915.00	6,917.45	6,917.18	2.45	6,896.97	20.48	N/A	N/A	7.22	6,910.23	N/A	7 - 17	Chinle/Alluvium Interface
			6/10/2016	4.00	6,915.00	6,917.45	6,917.18	2.45	6,896.97	20.48	N/A	N/A	8.09	6,909.36	N/A	7 - 17	Chinle/Alluvium Interface
			9/7/2016	4.00	6,915.00	6,917.45	6,917.18	2.45	6,896.97	20.48	N/A	N/A	8.28	6,909.17	N/A	7 - 17	Chinle/Alluvium Interface
			10/28/2016	4.00	6,915.00	6,917.45	6,917.18	2.45	6,896.97	20.48	N/A	N/A	8.55	6,908.90	N/A	7 - 17	Chinle/Alluvium Interface
11/7/2013	1/21/2014	MKTF-03	2/29/2016	4.00	6,931.73	6,931.69	6,930.85	-0.04	6,913.24	18.45	8.30	0.10	8.40	6,923.29	6923.37	3 - 18	Chinle/Alluvium Interface
			6/9/2016	4.00	6,931.73	6,931.69	6,930.85	-0.04	6,913.24	18.45	7.55	4.28	11.83	6,919.86	6923.28	3 - 18	Chinle/Alluvium Interface
			9/12/2016	4.00	6,931.73	6,931.69	6,930.85	-0.04	6,913.24	18.45	7.92	2.40	10.32	6,921.37	6923.29	3 - 18	Chinle/Alluvium Interface
			11/3/2015	4.00	6,931.73	6,931.69	6,930.85	-0.04	6,913.24	18.45	8.30	1.10	9.40	6922.29	6923.17	3 - 18	Chinle/Alluvium Interface
11/12/2013	1/21/2014	MKTF-04	2/29/2016	4.00	6,933.90	6,933.57	6,933.24	-0.33	6,911.42	22.15	N/A	N/A	10.68	6,922.89	N/A	10 - 22	Chinle/Alluvium Interface
			6/9/2016	4.00	6,933.90	6,933.57	6,933.24	-0.33	6,911.42	22.15	N/A	N/A	10.30	6,923.27	N/A	10 - 22	Chinle/Alluvium Interface
			9/11/2016	4.00	6,933.90	6,933.57	6,933.24	-0.33	6,911.42	22.15	N/A	N/A	10.23	6,923.34	N/A	10 - 22	Chinle/Alluvium Interface
			11/2/2016	4.00	6,933.90	6,933.57	6,933.24	-0.33	6,911.42	22.15	N/A	N/A	10.40	6,923.17	N/A	10 - 22	Chinle/Alluvium Interface
11/12/2013	1/21/2014	MKTF-05	2/29/2016	4.00	6,939.49	6,942.22	6,941.95	2.73	6,924.47	17.75	15.82	0.60	16.42	6,925.80	6926.28	4 - 14	Chinle/Alluvium Interface
			6/9/2016	4.00	6,939.49	6,942.22	6,941.95	2.73	6,924.47	17.75	15.34	0.53	15.87	6,926.35	6926.77	4 - 14	Chinle/Alluvium Interface
			9/11/2016	4.00	6,939.49	6,942.22	6,941.95	2.73	6,924.47	17.75	14.74	3.04	17.78	6,924.44	6926.87	4 - 14	Chinle/Alluvium Interface
			11/3/2015	4.00	6,939.49	6,942.22	6,941.95	2.73	6,924.47	17.75	15.47	0.84	16.31	6,925.91	6926.58	4 - 14	Chinle/Alluvium Interface
11/11/2013	1/21/2014	MKTF-06	2/29/2016	4.00	6,944.24	6,946.81	6,946.63	2.57	6,923.04	23.77	18.30	0.97	19.27	6,927.54	6928.32	8 - 20	Chinle/Alluvium Interface
			6/9/2016	4.00	6,944.24	6,946.81	6,946.63	2.57	6,923.04	23.77	18.02	0.94	18.96	6,927.85	6928.60	8 - 20	Chinle/Alluvium Interface
			9/11/2016	4.00	6,944.24	6,946.81	6,946.63	2.57	6,923.04	23.77	17.40	1.08	18.48	6,928.33	6929.19	8 - 20	Chinle/Alluvium Interface
			11/3/2015	4.00	6,944.24	6,946.81	6,946.63	2.57	6,923.04	23.77	18.04	0.74	18.78	6,928.03	6928.62	8 - 20	Chinle/Alluvium Interface
11/11/2013	1/21/2014	MKTF-07	2/29/2016	4.00	6,944.40	6,947.18	6,947.06	2.78	6,929.56	17.62	12.65	2.88	15.53	6,931.65	6933.95	4 - 14	Chinle/Alluvium Interface
			6/9/2016	4.00	6,944.40	6,947.18	6,947.06	2.78	6,929.56	17.62	12.01	2.59	14.60	6,932.58	6934.65	4 - 14	Chinle/Alluvium Interface
			9/11/2016	4.00	6,944.40	6,947.18	6,947.06	2.78	6,929.56	17.62	12.20	2.41	14.61	6,932.57	6934.50	4 - 14	Chinle/Alluvium Interface
			11/3/2015	4.00	6,944.40	6,947.18	6,947.06	2.78	6,929.56	17.62	12.90	1.98	14.88	6,932.30	6933.88	4 - 14	Chinle/Alluvium Interface
11/11/2013	1/21/2014	MKTF-08	2/29/2016	4.00	6,944.02	6,947.09	6,942.67	3.07	6,925.11	21.98	13.85	0.75	14.60	6,932.49	6933.09	8 - 18	Chinle/Alluvium Interface
			6/9/2016	4.00	6,944.02	6,947.09	6,942.67	3.07	6,925.11	21.98	13.48	0.70	14.18	6,932.91	6933.47	8 - 18	Chinle/Alluvium Interface
			9/11/2016	4.00	6,944.02	6,947.09	6,942.67	3.07	6,925.11	21.98	13.63	0.66	14.29	6,932.80	6933.33	8 - 18	Chinle/Alluvium Interface
			11/8/2015	4.00	6,944.02	6,947.09	6,942.67	3.07	6,925.11	21.98	13.84	1.48	15.32	6,931.77	6932.95	8 - 18	Chinle/Alluvium Interface
11/11/2013	1/21/2014	MKTF-09	2/29/2016	4.00	6,943.57	6,946.50	6,945.90	2.93	6,923.80	22.70	N/A	N/A	14.15	6,932.35	N/A	7 - 19	Chinle/Alluvium Interface
			6/9/2016	4.00	6,943.57	6,946.50	6,945.90	2.93	6,923.80	22.70	N/A	N/A	13.92	6,932.58	N/A	7 - 19	Chinle/Alluvium Interface
			9/11/2016	4.00	6,943.57	6,946.50	6,945.90	2.93	6,923.80	22.70	N/A	N/A	14.20	6,932.30	N/A	7 - 19	Chinle/Alluvium Interface
			11/2/2016	4.00	6,943.57	6,946.50	6,945.90	2.93	6,923.80	22.70	N/A	N/A	14.10	6,932.40	N/A	7 - 19	Chinle/Alluvium Interface
10/31/2013	1/21/2014	MKTF-10	2/29/2016	4.00	6,937.51	6,937.16	6,936.63	-0.35	6,921.17	15.99	N/A	N/A	8.60	6,928.56	N/A	7 - 17	Chinle/Alluvium Interface
			6/9/2016	4.00	6,937.51	6,937.16	6,936.63	-0.35	6,921.17	15.99	N/A	N/A	8.20	6,928.96	N/A	7 - 17	Chinle/Alluvium Interface
			9/11/2016	4.00	6,937.51	6,937.16	6,936.63	-0.35	6,921.17	15.99	N/A	N/A	8.45	6,928.71	N/A	7 - 17	Chinle/Alluvium Interface
			11/2/2016	4.00	6,937.51	6,937.16	6,936.63	-0.35	6,921.17	15.99	N/A	N/A	8.25	6,928.91	N/A	7 - 17	Chinle/Alluvium Interface

SECTION 9 - TABLE 9.2 MKTF WELLS

Date of Installation	Date of Survey [1]	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Ground Elevation Inside Steel Sleeve (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to [2] SPH (ft)	SPH [3] Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected [4] Water Table Elevation (Factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
10/31/2013	1/21/2014	MKTF-11	2/29/2016	4.00	6,931.61	6,931.34	6,930.86	-0.27	6,913.20	18.14	N/A	N/A	8.80	6,922.54	N/A	8 - 18	Chinle/Alluvium Interface
			6/9/2016	4.00	6,931.61	6,931.34	6,930.86	-0.27	6,913.20	18.14	N/A	N/A	8.66	6,922.68	N/A	8 - 18	Chinle/Alluvium Interface
			9/11/2016	4.00	6,931.61	6,931.34	6,930.86	-0.27	6,913.20	18.14	N/A	N/A	8.70	6,922.64	N/A	8 - 18	Chinle/Alluvium Interface
			11/2/2016	4.00	6,931.61	6,931.34	6,930.86	-0.27	6,913.20	18.14	N/A	N/A	8.65	6,922.69	N/A	8 - 18	Chinle/Alluvium Interface
11/7/2013	1/21/2014	MKTF-12	2/29/2016	4.00	6,939.70	6,942.11	6,941.88	2.41	6,916.51	25.60	19.80	0.65	20.45	6,921.66	6922.18	12 - 22	Chinle/Alluvium Interface
			6/10/2016	4.00	6,939.70	6,942.11	6,941.88	2.41	6,916.51	25.60	18.23	1.32	19.55	6,922.56	6923.62	12 - 22	Chinle/Alluvium Interface
			9/10/2016	4.00	6,939.70	6,942.11	6,941.88	2.41	6,916.51	25.60	19.23	0.32	19.55	6,922.56	6922.82	12 - 22	Chinle/Alluvium Interface
			11/1/2016	4.00	6,939.70	6,942.11	6,941.88	2.41	6,916.51	25.60	19.33	0.29	19.62	6,922.49	6922.72	12 - 22	Chinle/Alluvium Interface
11/12/2013	1/21/2014	MKTF-13	2/25/2016	4.00	6,933.67	6,935.18	6,934.83	1.51	6,913.93	21.25	14.42	0.87	15.29	6,919.89	6920.59	8 - 18	Chinle/Alluvium Interface
			6/10/2016	4.00	6,933.67	6,935.18	6,934.83	1.51	6,913.93	21.25	12.99	1.20	14.19	6,920.99	6921.95	8 - 18	Chinle/Alluvium Interface
			9/10/2016	4.00	6,933.67	6,935.18	6,934.83	1.51	6,913.93	21.25	13.88	0.98	14.86	6,920.32	6921.10	8 - 18	Chinle/Alluvium Interface
			11/1/2016	4.00	6,933.67	6,935.18	6,934.83	1.51	6,913.93	21.25	14.01	0.96	14.97	6,920.21	6920.98	8 - 18	Chinle/Alluvium Interface
11/12/2013	1/21/2014	MKTF-14	2/25/2016	4.00	6,925.65	6,928.02	6,927.80	2.37	6,910.56	17.46	7.81	0.44	8.25	6,919.77	6920.12	4 - 14	Chinle/Alluvium Interface
			6/10/2016	4.00	6,925.65	6,928.02	6,927.80	2.37	6,910.56	17.46	7.13	2.33	9.46	6,918.56	6920.42	4 - 14	Chinle/Alluvium Interface
			9/10/2016	4.00	6,925.65	6,928.02	6,927.80	2.37	6,910.56	17.46	7.31	1.69	9.00	6,919.02	6920.37	4 - 14	Chinle/Alluvium Interface
			11/1/2016	4.00	6,925.65	6,928.02	6,927.80	2.37	6,910.56	17.46	7.45	1.10	8.55	6,919.47	6920.35	4 - 14	Chinle/Alluvium Interface
10/29/2013	1/21/2014	MKTF-15	2/29/2016	2.00	6,943.74	6,943.48	6,943.19	-0.26	6,924.00	19.48	12.23	0.17	12.40	6,931.08	6931.22	9 - 19	Chinle/Alluvium Interface
			6/9/2016	2.00	6,943.74	6,943.48	6,943.19	-0.26	6,924.00	19.48	12.60	0.22	12.82	6,930.66	6930.84	9 - 19	Chinle/Alluvium Interface
			9/11/2016	2.00	6,943.74	6,943.48	6,943.19	-0.26	6,924.00	19.48	N/A	0.00	13.00	6,930.48	6930.48	9 - 19	Chinle/Alluvium Interface
			11/2/2016	2.00	6,943.74	6,943.48	6,943.19	-0.26	6,924.00	19.48	N/A	0.00	12.90	6,930.58	6930.58	9 - 19	Chinle/Alluvium Interface
11/7/2013	1/21/2014	MKTF-16	2/29/2016	2.00	6,951.00	6,950.58	6,950.58	-0.42	6,936.48	14.10	N/A	N/A	9.90	6,940.68	N/A	4 - 14	Chinle/Alluvium Interface
			6/8/2016	2.00	6,951.00	6,950.58	6,950.58	-0.42	6,936.48	14.10	N/A	N/A	9.58	6,941.00	N/A	4 - 14	Chinle/Alluvium Interface
			9/11/2016	2.00	6,951.00	6,950.58	6,950.58	-0.42	6,936.48	14.10	N/A	N/A	9.65	6,940.93	N/A	4 - 14	Chinle/Alluvium Interface
			11/2/2016	2.00	6,951.00	6,950.58	6,950.58	-0.42	6,936.48	14.10	N/A	N/A	9.28	6,941.30	N/A	4 - 14	Chinle/Alluvium Interface
11/14/2013	1/21/2014	MKTF-17	2/25/2016	2.00	6,945.79	6,945.76	6,945.64	-0.03	6,921.65	24.11	N/A	N/A	11.82	6,933.94	N/A	14 - 24	Chinle/Alluvium Interface
			6/10/2016	2.00	6,945.79	6,945.76	6,945.64	-0.03	6,921.65	24.11	N/A	N/A	11.30	6,934.46	N/A	14 - 24	Chinle/Alluvium Interface
			9/12/2016	2.00	6,945.79	6,945.76	6,945.64	-0.03	6,921.65	24.11	N/A	N/A	12.40	6,933.36	N/A	14 - 24	Chinle/Alluvium Interface
			11/7/2016	2.00	6,945.79	6,945.76	6,945.64	-0.03	6,921.65	24.11	N/A	N/A	8.95	6,936.81	N/A	14 - 24	Chinle/Alluvium Interface
11/15/2013	1/21/2014	MKTF-18	2/26/2016	2.00	6,950.97	6,950.65	6,950.17	-0.32	6,925.27	25.38	N/A	N/A	8.34	6,942.31	N/A	17 - 27	Chinle/Alluvium Interface
			6/10/2016	2.00	6,950.97	6,950.65	6,950.17	-0.32	6,925.27	25.38	N/A	N/A	11.85	6,938.80	N/A	17 - 27	Chinle/Alluvium Interface
			9/12/2016	2.00	6,950.97	6,950.65	6,950.17	-0.32	6,925.27	25.38	N/A	N/A	7.75	6,942.90	N/A	17 - 27	Chinle/Alluvium Interface
			11/7/2016	2.00	6,950.97	6,950.65	6,950.17	-0.32	6,925.27	25.38	N/A	N/A	7.50	6,943.15	N/A	17 - 27	Chinle/Alluvium Interface
11/5/2013	4/30/2014	MKTF-19	2/25/2016	2.00	6,944.89	6,944.67	6,944.34	-0.22	6,927.20	17.47	N/A	N/A	12.62	6,932.05	N/A	10 - 20	Chinle/Alluvium Interface
			6/10/2016	2.00	6,944.89	6,944.67	6,944.34	-0.22	6,927.20	17.47	N/A	N/A	11.90	6,932.77	N/A	10 - 20	Chinle/Alluvium Interface
			9/12/2016	2.00	6,944.89	6,944.67	6,944.34	-0.22	6,927.20	17.47	N/A	N/A	11.25	6,933.42	N/A	10 - 20	Chinle/Alluvium Interface
			11/7/2016	2.00	6,944.89	6,944.67	6,944.34	-0.22	6,927.20	17.47	N/A	N/A	11.00	6,933.67	N/A	10 - 20	Chinle/Alluvium Interface
2/10/2014	4/30/2014	MKTF-20	2/29/2016	4.00	6,951.89	6,951.78	6,951.17	-0.11	6,941.89	9.89	N/A	N/A	7.81	6,943.97	N/A	2 - 10	Chinle/Alluvium Interface
			6/8/2016	4.00	6,951.89	6,951.78	6,951.17	-0.11	6,941.89	9.89	N/A	N/A	7.23	6,944.55	N/A	2 - 10	Chinle/Alluvium Interface
			9/11/2016	4.00	6,951.89	6,951.78	6,951.17	-0.11	6,941.89	9.89	N/A	N/A	7.65	6,944.13	N/A	2 - 10	Chinle/Alluvium Interface
			11/2/2016	4.00	6,951.89	6,951.78	6,951.17	-0.11	6,941.89	9.89	N/A	N/A	7.10	6,944.68	N/A	2 - 10	Chinle/Alluvium Interface
2/10/2014	4/30/2014	MKTF-21	2/29/2016	4.00	6,952.68	6,952.57	6,952.00	-0.11	6,942.68	9.89	N/A	N/A	7.24	6,945.33	N/A	2 - 10	Chinle/Alluvium Interface
			6/8/2016	4.00	6,952.68	6,952.57	6,952.00	-0.11	6,942.68	9.89	N/A	N/A	6.98	6,945.59	N/A	2 - 10	Chinle/Alluvium Interface
			9/11/2016	4.00	6,952.68	6,952.57	6,952.00	-0.11	6,942.68	9.89	N/A	N/A	7.62	6,944.95	N/A	2 - 10	Chinle/Alluvium Interface
			11/2/2016	4.00	6,952.68	6,952.57	6,952.00	-0.11	6,942.68	9.89	N/A	N/A	6.30	6,946.27	N/A	2 - 10	Chinle/Alluvium Interface

SECTION 9 - TABLE 9.2 MKTF WELLS

Date of Installation	Date of Survey [1]	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Ground Elevation Inside Steel Sleeve (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to [2] SPH (ft)	SPH [3] Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected [4] Water Table Elevation (Factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
11/8/2013	4/30/2014	MKTF-22	2/25/2016	2.00	6,939.76	6,942.31	6,938.57	2.55	6,907.06	35.25	N/A	N/A	26.13	6,916.18	N/A	22 - 32	Chinle/Alluvium Interface
			6/10/2016	2.00	6,939.76	6,942.31	6,938.57	2.55	6,907.06	35.25	N/A	N/A	26.06	6,916.25	N/A	22 - 32	Chinle/Alluvium Interface
			9/10/2016	2.00	6,939.76	6,942.31	6,938.57	2.55	6,907.06	35.25	N/A	N/A	26.13	6,916.18	N/A	22 - 32	Chinle/Alluvium Interface
			11/1/2016	2.00	6,939.76	6,942.31	6,938.57	2.55	6,907.06	35.25	N/A	N/A	26.05	6,916.26	N/A	22 - 32	Chinle/Alluvium Interface
11/4/2013	4/30/2014	MKTF-23	2/25/2016	2.00	6,927.23	6,929.98	6,925.79	2.75	6,909.62	20.36	N/A	N/A	14.67	6,915.31	N/A	7 - 17	Chinle/Alluvium Interface
			6/10/2016	2.00	6,927.23	6,929.98	6,925.79	2.75	6,909.62	20.36	N/A	N/A	14.64	6,915.34	N/A	7 - 17	Chinle/Alluvium Interface
			9/10/2016	2.00	6,927.23	6,929.98	6,925.79	2.75	6,909.62	20.36	15.04	0.11	15.15	6,914.83	6914.92	7 - 17	Chinle/Alluvium Interface
			11/1/2016	2.00	6,927.23	6,929.98	6,925.79	2.75	6,909.62	20.36	14.80	0.12	14.92	6,915.06	6915.16	7 - 17	Chinle/Alluvium Interface
10/29/2013	4/30/2014	MKTF-24	2/22/2016	2.00	6,926.07	6,928.72	6,924.62	2.65	6,898.25	30.47	N/A	N/A	21.34	6,907.38	N/A	18 - 28	Chinle/Alluvium Interface
			6/8/2016	2.00	6,926.07	6,928.72	6,924.62	2.65	6,898.25	30.47	N/A	N/A	21.23	6,907.49	N/A	18 - 28	Chinle/Alluvium Interface
			9/7/2016	2.00	6,926.07	6,928.72	6,924.62	2.65	6,898.25	30.47	N/A	N/A	22.69	6,906.03	N/A	18 - 28	Chinle/Alluvium Interface
			10/28/2016	2.00	6,926.07	6,928.72	6,924.62	2.65	6,898.25	30.47	N/A	N/A	22.34	6,906.38	N/A	18 - 28	Chinle/Alluvium Interface
10/30/2013	4/30/2014	MKTF-25	2/23/2016	2.00	6,913.35	6,916.19	6,911.79	2.84	6,896.76	19.43	N/A	N/A	10.83	6,905.36	N/A	6 - 16	Chinle/Alluvium Interface
			6/9/2016	2.00	6,913.35	6,916.19	6,911.79	2.84	6,896.76	19.43	N/A	N/A	11.22	6,904.97	N/A	6 - 16	Chinle/Alluvium Interface
			9/8/2016	2.00	6,913.35	6,916.19	6,911.79	2.84	6,896.76	19.43	N/A	N/A	12.17	6,904.02	N/A	6 - 16	Chinle/Alluvium Interface
			10/31/2016	2.00	6,913.35	6,916.19	6,911.79	2.84	6,896.76	19.43	N/A	N/A	11.45	6,904.74	N/A	6 - 16	Chinle/Alluvium Interface
10/30/2013	4/30/2014	MKTF-26	2/22/2016	2.00	6,912.55	6,915.31	6,911.35	2.76	6,898.16	17.15	N/A	N/A	8.17	6,907.14	N/A	4 - 14	Chinle/Alluvium Interface
			6/9/2016	2.00	6,912.55	6,915.31	6,911.35	2.76	6,898.16	17.15	N/A	N/A	9.60	6,905.71	N/A	4 - 14	Chinle/Alluvium Interface
			9/7/2016	2.00	6,912.55	6,915.31	6,911.35	2.76	6,898.16	17.15	9.44	1.37	10.81	6,904.50	35934.50	4 - 14	Chinle/Alluvium Interface
			10/28/2016	2.00	6,912.55	6,915.31	6,911.35	2.76	6,898.16	17.15	9.36	1.39	10.75	6,904.56	35934.44	4 - 14	Chinle/Alluvium Interface
10/30/2013	4/30/2014	MKTF-27	2/22/2016	2.00	6,915.36	6,917.90	6,914.18	2.54	6,903.18	14.72	N/A	N/A	7.20	6,910.70	N/A	1 - 12	Chinle/Alluvium Interface
			6/8/2016	2.00	6,915.36	6,917.90	6,914.18	2.54	6,903.18	14.72	N/A	N/A	7.51	6,910.39	N/A	1 - 12	Chinle/Alluvium Interface
			9/7/2016	2.00	6,915.36	6,917.90	6,914.18	2.54	6,903.18	14.72	N/A	N/A	8.06	6,909.84	N/A	1 - 12	Chinle/Alluvium Interface
			10/28/2016	2.00	6,915.36	6,917.90	6,914.18	2.54	6,903.18	14.72	N/A	N/A	8.10	6,909.80	N/A	1 - 12	Chinle/Alluvium Interface
4/2/2014	4/30/2014	MKTF-28	2/23/2016	2.00	6,918.67	6,921.52	6,917.51	2.85	6,905.36	16.16	N/A	N/A	5.32	6,916.20	N/A	3 - 13	Chinle/Alluvium Interface
			6/8/2016	2.00	6,918.67	6,921.52	6,917.51	2.85	6,905.36	16.16	N/A	N/A	5.28	6,916.24	N/A	3 - 13	Chinle/Alluvium Interface
			9/8/2016	2.00	6,918.67	6,921.52	6,917.51	2.85	6,905.36	16.16	N/A	N/A	6.40	6,915.12	N/A	3 - 13	Chinle/Alluvium Interface
			10/28/2016	2.00	6,918.67	6,921.52	6,917.51	2.85	6,905.36	16.16	N/A	N/A	9.26	6,912.26	N/A	3 - 13	Chinle/Alluvium Interface
4/2/2014	4/30/2014	MKTF-29	2/23/2016	2.00	6,898.83	6,901.62	6,897.67	2.79	6,878.78	22.84	N/A	N/A	1.92	6,899.70	N/A	10 - 20	Chinle/Alluvium Interface
			6/9/2016	2.00	6,898.83	6,901.62	6,897.67	2.79	6,878.78	22.84	N/A	N/A	2.69	6,898.93	N/A	10 - 20	Chinle/Alluvium Interface
			9/7/2016	2.00	6,898.83	6,901.62	6,897.67	2.79	6,878.78	22.84	N/A	N/A	4.52	6,897.10	N/A	10 - 20	Chinle/Alluvium Interface
			10/28/2016	2.00	6,898.83	6,901.62	6,897.67	2.79	6,878.78	22.84	N/A	N/A	3.10	6,898.52	N/A	10 - 20	Chinle/Alluvium Interface
4/1/2014	4/30/2014	MKTF-30	2/23/2016	2.00	6,898.10	6,900.80	6,896.68	2.70	6,877.60	23.20	N/A	N/A	14.40	6,886.40	N/A	10 - 20	Chinle/Alluvium Interface
			6/9/2016	2.00	6,898.10	6,900.80	6,896.68	2.70	6,877.60	23.20	N/A	N/A	14.01	6,886.79	N/A	10 - 20	Chinle/Alluvium Interface
			9/7/2016	2.00	6,898.10	6,900.80	6,896.68	2.70	6,877.60	23.20	N/A	N/A	15.48	6,885.32	N/A	10 - 20	Chinle/Alluvium Interface
			10/28/2016	2.00	6,898.10	6,900.80	6,896.68	2.70	6,877.60	23.20	N/A	N/A	15.70	6,885.10	N/A	10 - 20	Chinle/Alluvium Interface
4/1/2014	4/30/2014	MKTF-31	2/23/2016	2.00	6,904.26	6,906.87	6,903.11	2.61	6,884.06	22.81	N/A	N/A	7.95	6,898.92	N/A	6 - 21	Chinle/Alluvium Interface
			6/9/2016	2.00	6,904.26	6,906.87	6,903.11	2.61	6,884.06	22.81	N/A	N/A	7.75	6,899.12	N/A	6 - 21	Chinle/Alluvium Interface
			9/8/2016	2.00	6,904.26	6,906.87	6,903.11	2.61	6,883.06	23.81	N/A	N/A	8.48	6,898.39	N/A	6 - 21	Chinle/Alluvium Interface
			10/31/2016	2.00	6,904.26	6,906.87	6,903.11	2.61	6,884.06	22.81	N/A	N/A	8.45	6,898.42	N/A	6 - 21	Chinle/Alluvium Interface
3/31/2014	4/30/2014	MKTF-32	2/24/2016	2.00	6,908.44	6,911.11	6,907.16	2.67	6,883.36	27.75	N/A	N/A	14.53	6,896.58	N/A	9 - 24	Chinle/Alluvium Interface
			6/9/2016	2.00	6,908.44	6,911.11	6,907.16	2.67	6,883.36	27.75	N/A	N/A	14.31	6,896.80	N/A	9 - 24	Chinle/Alluvium Interface
			9/9/2016	2.00	6,908.44	6,911.11	6,907.16	2.67	6,882.36	28.75	N/A	N/A	14.40	6,896.71	N/A	9- 24	Chinle/Alluvium Interface
			10/31/2016	2.00	6,908.44	6,911.11	6,907.16	2.67	6,883.36	27.75	N/A	N/A	14.16	6,896.95	N/A	9 - 24	Chinle/Alluvium Interface

SECTION 9 - TABLE 9.2 MKTF WELLS

Date of Installation	Date of Survey [1]	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Ground Elevation Inside Steel Sleeve (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to [2] SPH (ft)	SPH [3] Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected [4] Water Table Elevation (Factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
4/3/2014	4/30/2014	MKTF-33	2/25/2016	2.00	6,936.59	6,939.75	6,936.59	3.16	6,906.55	33.20	N/A	N/A	23.20	6,916.55	N/A	20 - 30	Chinle/Alluvium Interface
			6/10/2016	2.00	6,936.59	6,939.75	6,936.59	3.16	6,906.55	33.20	N/A	N/A	23.29	6,916.46	N/A	20 - 30	Chinle/Alluvium Interface
			9/10/2016	2.00	6,936.59	6,939.75	6,936.59	3.16	6,906.55	33.20	N/A	N/A	23.20	6,916.55	N/A	20 - 30	Chinle/Alluvium Interface
			11/1/2016	2.00	6,936.59	6,939.75	6,936.59	3.16	6,906.55	33.20	N/A	N/A	22.95	6,916.80	N/A	20 - 30	Chinle/Alluvium Interface
3/31/2014	4/30/2014	MKTF-34	2/25/2016	2.00	6,942.42	6,945.35	3,943.52	2.93	6,917.67	27.68	N/A	N/A	19.20	6,926.15	N/A	9 - 24	Chinle/Alluvium Interface
			6/10/2016	2.00	6,942.42	6,945.35	3,943.52	2.93	6,917.67	27.68	N/A	N/A	18.60	6,926.75	N/A	9 - 24	Chinle/Alluvium Interface
			9/12/2016	2.00	6,942.42	6,945.35	3,943.52	2.93	6,917.67	27.68	N/A	N/A	18.03	6,927.32	N/A	9 - 24	Chinle/Alluvium Interface
			11/7/2016	2.00	6,942.42	6,945.35	3,943.52	2.93	6,917.67	27.68	N/A	N/A	17.50	6,927.85	N/A	9 - 24	Chinle/Alluvium Interface
11/19/2014	12/16/2014	MKTF-35	2/26/2016	2.00	6,951.90	6,951.65	6,951.25	-0.25	6,935.20	16.45	N/A	N/A	8.40	6,943.25	N/A	6 - 16	Chinle/Alluvium Interface
			6/10/2016	2.00	6,951.90	6,951.65	6,951.25	-0.25	6,935.20	16.45	N/A	N/A	7.37	6,944.28	N/A	6 - 16	Chinle/Alluvium Interface
			9/12/2016	2.00	6,951.90	6,951.65	6,951.25	-0.25	6,935.20	16.45	N/A	N/A	6.65	6,945.00	N/A	6 - 16	Chinle/Alluvium Interface
			11/3/2016	2.00	6,951.90	6,951.65	6,951.25	-0.25	6,935.20	16.45	N/A	N/A	6.00	6,945.65	N/A	6 - 16	Chinle/Alluvium Interface
11/19/2014	12/16/2014	MKTF-36	2/26/2016	2.00	6,950.67	6,950.12	6,949.87	-0.55	6,934.67	15.45	7.42	0.06	7.48	6,942.64	13.42	5 15	Chinle/Alluvium Interface
			6/10/2016	2.00	6,950.67	6,950.12	6,949.87	-0.55	6,934.67	15.45	6.78	0.02	6.80	6,943.32	12.22	5 15	Chinle/Alluvium Interface
			9/13/2016	2.00	6,950.67	6,950.12	6,949.87	-0.55	6,934.67	15.45	6.54	0.01	6.55	6,943.57	11.78	5 15	Chinle/Alluvium Interface
			11/7/2016	2.00	6,950.67	6,950.12	6,949.87	-0.55	6,934.67	15.45	N/A	N/A	6.30	6,943.82	N/A	5 15	Chinle/Alluvium Interface
11/18/2014	12/16/2014	MKTF-37	2/26/2016	2.00	6,959.07	6,958.87	6,958.62	-0.20	6,934.27	24.60	9.00	0.04	9.04	6,949.83	N/A	4 - 24	Chinle/Alluvium Interface
			6/10/2016	2.00	6,959.07	6,958.87	6,958.62	-0.20	6,934.27	24.60	8.21	0.02	8.23	6,950.64	14.80	4 - 24	Chinle/Alluvium Interface
			9/12/2016	2.00	6,959.07	6,958.87	6,958.62	-0.20	6,934.27	24.60	N/A	N/A	7.65	6,951.22	N/A	4 - 24	Chinle/Alluvium Interface
			11/3/2016	2.00	6,959.07	6,958.87	6,958.62	-0.20	6,934.27	24.60	N/A	N/A	7.09	6,951.78	NA	4 - 24	Chinle/Alluvium Interface
11/20/2014	12/16/2014	MKTF-38	2/29/2016	2.00	6,955.17	6,954.89	6,954.54	-0.28	6,934.60	20.29	N/A	N/A	8.63	6,946.26	N/A	5 - 20	Chinle/Alluvium Interface
			6/8/2016	2.00	6,955.17	6,954.89	6,954.54	-0.28	6,934.60	20.29	N/A	N/A	8.43	6,946.46	N/A	5 - 20	Chinle/Alluvium Interface
			9/13/2016	2.00	6,955.17	6,954.89	6,954.54	-0.28	6,934.60	20.29	N/A	N/A	8.00	6,946.89	N/A	5 - 20	Chinle/Alluvium Interface
			11/1/2016	2.00	6,955.17	6,954.89	6,954.54	-0.28	6,934.60	20.29	N/A	N/A	7.50	6,947.39	N/A	5 - 20	Chinle/Alluvium Interface
11/14/2014	12/16/2014	MKTF-39	3/3/2016	2.00	6,953.97	6,953.75	6,953.12	-0.22	6,938.55	15.20	N/A	N/A	8.50	6,945.25	N/A	5 - 15	Chinle/Alluvium Interface
			6/8/2016	2.00	6,953.97	6,953.75	6,953.12	-0.22	6,938.55	15.20	N/A	N/A	8.33	6,945.42	N/A	5 - 15	Chinle/Alluvium Interface
			9/13/2016	2.00	6,953.97	6,953.75	6,953.12	-0.22	6,938.55	15.20	N/A	N/A	8.40	6,945.35	N/A	5 - 15	Chinle/Alluvium Interface
			11/1/2016	2.00	6,953.97	6,953.75	6,953.12	-0.22	6,938.55	15.20	N/A	N/A	7.80	6,945.95	N/A	5 - 15	Chinle/Alluvium Interface
11/13/2014	12/16/2014	MKTF-40	2/23/2016	2.00	6,891.35	6,894.33	6,890.48	2.98	6,870.69	23.64	N/A	N/A	13.88	6,880.45	N/A	5 - 20	Chinle/Alluvium Interface
			6/9/2016	2.00	6,891.35	6,894.33	6,890.48	2.98	6,870.69	23.64	N/A	N/A	13.31	6,881.02	N/A	5 - 20	Chinle/Alluvium Interface
			9/8/2016	2.00	6,891.35	6,894.33	6,890.48	2.98	6,870.69	23.64	N/A	N/A	13.52	6,880.81	N/A	5 - 20	Chinle/Alluvium Interface
			10/31/2016	2.00	6,891.35	6,894.33	6,890.48	2.98	6,870.69	23.64	N/A	N/A	13.76	6,880.57	N/A	5 - 20	Chinle/Alluvium Interface
11/14/2014	12/16/2014	MKTF-41	2/24/2016	2.00	6,891.11	6,893.64	6,889.80	2.53	6,853.54	40.10	N/A	N/A	19.90	6,873.74	N/A	22 - 37	Chinle/Alluvium Interface
			6/9/2016	2.00	6,891.11	6,893.64	6,889.80	2.53	6,853.54	40.10	N/A	N/A	19.65	6,873.99	N/A	22 - 37	Chinle/Alluvium Interface
			9/9/2016	2.00	6,891.11	6,893.64	6,889.80	2.53	6,853.54	40.10	N/A	N/A	20.11	6,873.53	N/A	22 - 37	Chinle/Alluvium Interface
			10/31/2016	2.00	6,891.11	6,893.64	6,889.80	2.53	6,853.54	40.10	N/A	N/A	20.00	6,873.64	N/A	22 - 37	Chinle/Alluvium Interface
11/12/2014	12/16/2014	MKTF-42	2/24/2016	2.00	6,890.42	6,892.95	6,888.75	2.53	6,859.80	33.15	N/A	N/A	17.69	6,875.26	N/A	10 - 30	Chinle/Alluvium Interface
			6/9/2016	2.00	6,890.42	6,892.95	6,888.75	2.53	6,859.80	33.15	N/A	N/A	17.30	6,875.65	N/A	10 - 30	Chinle/Alluvium Interface
			9/9/2016	2.00	6,890.42	6,892.95	6,888.75	2.53	6,859.80	33.15	N/A	N/A	17.30	6,875.65	N/A	10 - 30	Chinle/Alluvium Interface
			10/31/2016	2.00	6,890.42	6,892.95	6,888.75	2.53	6,859.80	33.15	N/A	N/A	17.25	6,875.70	N/A	10 - 30	Chinle/Alluvium Interface
11/11/2014	12/16/2014	MKTF-43	2/24/2016	2.00	6,874.12	6,876.90	6,873.22	2.78	6,861.47	15.43	N/A	N/A	5.00	6,871.90	N/A	2 - 12	Chinle/Alluvium Interface
			6/9/2016	2.00	6,874.12	6,876.90	6,873.22	2.78	6,861.47	15.43	N/A	N/A	3.67	6,873.23	N/A	2 - 12	Chinle/Alluvium Interface
			9/9/2016	2.00	6,874.12	6,876.90	6,873.22	2.78	6,861.47	15.43	N/A	N/A	3.98	6,872.92	N/A	2 - 12	Chinle/Alluvium Interface
			10/31/2016	2.00	6,874.12	6,876.90	6,873.22	2.78	6,861.47	15.43	N/A	N/A	5.12	6,871.78	N/A	2 - 12	Chinle/Alluvium Interface

SECTION 9 - TABLE 9.2 MKTF WELLS

Date of Installation	Date of Survey [1]	Well ID Number	Inspection or Sample Date	Casing Diameter (Inch)	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Ground Elevation Inside Steel Sleeve (ft)	Stick-up length (ft)	Well Casing Bottom Elevation (ft)	Total Well Depth (ft)	Depth to [2] SPH (ft)	SPH [3] Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation (ft)	Corrected [4] Water Table Elevation (Factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists
11/11/2014	12/16/2014	MKTF-44	2/24/2016	2.00	6,867.41	6,869.95	6,866.06	2.54	6,818.80	51.15	N/A	N/A	28.74	6,841.21	N/A	38 - 48	Chinle/Alluvium Interface
			6/9/2016	2.00	6,867.41	6,869.95	6,866.06	2.54	6,818.80	51.15	N/A	N/A	27.83	6,842.12	N/A	38 - 48	Chinle/Alluvium Interface
			9/8/2016	2.00	6,867.41	6,869.95	6,866.06	2.54	6,818.80	51.15	N/A	N/A	31.34	6,838.61	N/A	38 - 48	Chinle/Alluvium Interface
			10/31/2016	2.00	6,867.41	6,869.95	6,866.06	2.54	6,818.80	51.15	N/A	N/A	40.70	6,829.25	N/A	38 - 48	Chinle/Alluvium Interface
Pre-existing	12/16/2014	MKTF-45	2/26/2016	4.00	6,948.63	6,949.59	6,948.27	0.96	6,919.35	30.24	13.39	0.18	13.57	6,936.02	6936.16	Unknown	Chinle/Alluvium Interface
			6/10/2016	4.00	6,948.63	6,949.59	6,948.27	0.96	6,919.35	30.24	12.48	0.32	12.80	6,936.79	6937.05	Unknown	Chinle/Alluvium Interface
			9/13/2016	4.00	6,948.63	6,949.59	6,948.27	0.96	6,919.35	30.24	11.95	0.45	12.40	6,937.19	6937.55	Unknown	Chinle/Alluvium Interface
			11/7/2016	4.00	6,948.63	6,949.59	6,948.27	0.96	6,919.35	30.24	11.46	0.43	11.89	6,937.70	6938.04	Unknown	Chinle/Alluvium Interface

DEFINITIONS:

DTB - Depth to Bottom
DTW - Depth to Water
N/A - Not Applicable
SPH - Separate Phase Hydrocarbons

Negative number in Stick up Length column indicates well is flush mount and located at or below ground level
Depth to Water Column - if a measurement of 0.00 is indicated - means water level is at top of casing - Full.
Dry indicates no water was detected in the well.

NOTES:

1) Wells surveyed by a licensed professional surveyor-Hammon Enterprises, Inc. (HEI)
2) "0" indicates no SPH level.
3) Depth to SPH - Depth to Water Measurement = SPH Column Thickness.
4) Corrected Water Table Elevaton applies only if SPH thickness column measurement exists. (0.8 X SPH thickness + Ground Water Elevation)

SECTION 10

2016 MONITORING SCHEDULE

Table 1 in Section 10 details the approved Ground Water Monitoring Schedule for all wells at Gallup Refinery and details the analytical suite required for each sample site location.

SECTION 10 – MONITORING SCHEDULE 2016

Sampling Location ID	Frequency	General Monitoring and Sampling Comments.	Analytical Data Location
NAPI Secondary Containment (LDU) East, West, Oil Sump	Q - Quarterly	BTEX, DRO extended/GRO, WQCC Metals or check for fluids	Appendix G, Section 8.10
RW-1	Q	Measure depth to water (DTW), depth to product (DTP), BTEX + MTBE, GRO/DRO/MRO. Sample only if no SPH is detected.	Appendix G, Section 8.11
RW-2	Q	Same as RW-1	Appendix G, Section 8.11
RW-5	Q	Same as RW-1	Appendix G, Section 8.11
RW-6	Q	Same as RW-1	Appendix G, Section 8.11
OW-1 [1]	Q	Visual Check for Artesian flow conditions; Major Cations/Anions, VOCs, GRO/DRO/MRO, WQCC Metals, add Method 8011 for 1,2-Dibromethane(EDB), & ethylene dichloride (EDC)	Appendix G, Section 8.12
OW-10 [1]	Q	Visual Check for Artesian flow conditions; Major Cations/Anions, VOCs, GRO/DRO extended, WQCC Metals, add Method 8011 for EDB & EDC	Appendix G, Section 8.12
OW-13	Q	VOCs, WQCC Metals, GRO/DRO extended	Appendix G, Section 8.13
OW-14 [1]	Q	Same as OW-13, add Method 8011 for 1,2-Dibromethane	Appendix G, Section 8.13
OW-29 [1]	Q	Same as OW-13, add Method 8011 for 1,2-Dibromethane	Appendix G, Section 8.13
OW-30 [1]	Q	Same as OW-13, add Method 8011 for 1,2-Dibromethane	Appendix G, Section 8.13
GWM-1	Q	VOCs, WQCC METALS, GRO/DRO EXTENDED, Major Cations/Anions	Appendix G, Section 8.7
GWM-2	Q	Check for water. If water is detected report to OCD & NMED within 24 hours. Sample for VOCs, GRO/DRO extended, Major Cations/Anions	Appendix G, Section 8.7
GWM-3	Q	Same as GWM-2	Appendix G, Section 8.7
NAPIS-1	Q	Major Cations/Anions, VOCs, SVOC, GRO/DRO extended, WQCC Metals	Appendix G, Section 8.8
NAPIS-2	Q	Same as NAPIS-1	Appendix G, Section 8.8
NAPIS-3	Q	Same as NAPIS-1	Appendix G, Section 8.8
KA-3	Q	Same as NAPIS-1	Appendix G, Section 8.8
OAPIS-1	Q	VOCs, SVOCs, GRO/DRO extended, WQCC Metals, Major Cations/Anions, Cyanide	Appendix G, Section 8.9
STP1-NW	Q	VOCs, SVOCs, GRO/DRO extended, WQCC Metals, Major Cations/Anions	Appendix G, Section 8.16
STP1-SW	Q	Same as STP1-NW	Appendix G, Section 8.16
MKTF-1	Q	VOCs, SVOCs, GRO/DRO extended, WQCC Metals, Major Cations/Anions. Ground Water samples will not be collected if SPH is present in any of the wells.	Appendix G, Section 8.17
MKTF-2 [2]	Q	Same as MKTF-1, add Method 8011 for 1,2-Dibromethane	Appendix G, Section 8.17

(Revised: Oct 2020)

SECTION 10 – MONITORING SCHEDULE 2016

Sampling Location ID	Frequency	General Monitoring and Sampling Comments.	Analytical Data Location
MKTF-3	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-4	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-5	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-6	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-7	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-8	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-9	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-10	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-11	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-12	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-13	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-14	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-15	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-16	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-17	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-18	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-19	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-20	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-21	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-22	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-23	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-24 [2]	Q	Same as MKTF-1, add Method 8011 for 1,2-Dibromethane	Appendix G, Section 8.17
MKTF-25 [2]	Q	Same as MKTF-1, add Method 8011 for 1,2-Dibromethane	Appendix G, Section 8.17
MKTF-26 [2]	Q	Same as MKTF-1, add Method 8011 for 1,2-Dibromethane	Appendix G, Section 8.17
MKTF-27	Q	Same as MKTF-1	Appendix G, Section 8.17

(Revised: Oct 2020)

SECTION 10 – MONITORING SCHEDULE 2016

Sampling Location ID	Frequency	General Monitoring and Sampling Comments.	Analytical Data Location
MKTF-28	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-29	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-30 [2]	Q	Same as MKTF-1, add Method 8011 for 1,2-Dibromethane	Appendix G, Section 8.17
MKTF-31 [2]	Q	Same as MKTF-1, add Method 8011 for 1,2-Dibromethane	Appendix G, Section 8.17
MKTF-32 [2]	Q	Same as MKTF-1, add Method 8011 for 1,2-Dibromethane	Appendix G, Section 8.17
MKTF-33	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-34	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-35 [2]	Q	Same as MKTF-1, add Method 8011 for 1,2-Dibromethane	Appendix G, Section 8.17
MKTF-36 [2]	Q	Same as MKTF-1, add Method 8011 for 1,2-Dibromethane	Appendix G, Section 8.17
MKTF-37 [2]	Q	Same as MKTF-1, add Method 8011 for 1,2-Dibromethane	Appendix G, Section 8.17
MKTF-38	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-39	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-40	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-41 [2]	Q	Same as MKTF-1, add Method 8011 for 1,2-Dibromethane	Appendix G, Section 8.17
MKTF-42	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-43	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-44	Q	Same as MKTF-1	Appendix G, Section 8.17
MKTF-45 Pond 1 (EP-1)	Q	Same as MKTF-1 NO LONGER IN SERVICE	Appendix G, Section 8.17 Appendix G, Section 8.15
Evaporation Pond (EP-2 through EP-12B)	SA	General Chemistry, VOCs, SVOCs, BOD, COD, E-Coli Bacteria, WQCC Metals	Appendix G, Section 8.15
BW-1A	A - Annual	Major Cations/Anions, VOCs, WQCC Metals, GRO/DRO extended	Appendix G, Section 8.1
BW-1B	A	Same as BW-1A	Appendix G, Section 8.1
BW-1C	A	Same as BW-1A	Appendix G, Section 8.1

SECTION 10 – MONITORING SCHEDULE 2016

Sampling Location ID	Frequency	General Monitoring and Sampling Comments.	Analytical Data Location
BW-2A	A	Same as BW-1A	Appendix G, Section 8.1
BW-2B	A	Same as BW-1A	Appendix G, Section 8.1
BW-2C	A	Same as BW-1A	Appendix G, Section 8.1
BW-3A	A	Same as BW-1A	Appendix G, Section 8.1
BW-3B	A	Same as BW-1A	Appendix G, Section 8.1
BW-3C	A	Same as BW-1A	Appendix G, Section 8.1
STP-1 to EP-2 (EP-2 Inlet)	Q	VOCs, GRO/DRO extended, BOD, COD, TDS	Appendix G, Section 8.14
MW-1	Annual and every 10 years beginning 2009 per RCRA Post Closure Permit	Major Cations/Anions, VOCs, SVOCs, GRO/DRO extended, WQCC Metals, Cyanide. For RCRA 10 year requirements: Gen Chem, Modified Skinner List Metals (total and dissolved) including mercury and cyanide, Modified Skinner List VOCs, SVOCs, TPH	Appendix G, Section 8.2
MW-2	Annual and every 10 years beginning 2009 per RCRA Post Closure Permit	Same as MW-1	Appendix G, Section 8.2
MW-4	Annual and every 10 years beginning 2009 per RCRA Post Closure Permit	Same as MW-1	Appendix G, Section 8.2
MW-5	Annual and every 10 years beginning 2009 per RCRA Post Closure Permit	Same as MW-1	Appendix G, Section 8.2
OW-11	A	Major Cations/Anions, VOCs, WQCC Metals, GRO/DRO extended	Appendix G, Section 8.4
OW-12	A	VOCs, WQCC Metals, GRO/DRO extended, General Chemistry	Appendix G, Section 8.4
OW-50	Q	VOCs, WQCC Metals, GRO/DRO extended, General Chemistry, EDB	Appendix G, Section 8.5
OW-52	Q	Same as OW-50	Appendix G, Section 8.5
SMW-2	A	Major Cations/Anions, VOCs, SVOCs, GRO/DRO extended, WQCC Metals, Cyanide.	Appendix G, Section 8.3
SMW-4	Annual and every 10 years beginning 2009 per RCRA Post Closure Permit	Major Cations/Anions, VOCs,SVOCs, GRO/DRO extended, WQCC Metals, Cyanide. For RCRA 10 year requirements: Gen Chem, Modified Skinner List Metals (total and dissolved) including mercury and cyanide, Modified Skinner List VOCs, SVOCs, TPH	Appendix G, Section 8.3
PW-2	Every 3 years. Start 2008	VOCs, SVOCs, WQCC Metals, Cyanide, Nitrates	Appendix G, Section 8.6
PW-3	A	Same as PW-2	Appendix G, Section 8.6
PW-4	SA	Same as PW-2	Appendix G, Section 8.6

(Revised: Oct 2020)

SECTION 10 – MONITORING SCHEDULE 2016

DEFINITIONS:

NA – Not Applicable	SVOCs – Semi-Volatile Organic Compounds including phenols – Method 8270	DTW = Depth to Water; DTP = Depth to Product
DO – Dissolved Oxygen	BTEX – Benzene, toluene, ethylbenzene, Xylenes plus MTBE – Method 8021	EP = Evaporation Ponds; BW = Boundary Well; RW = Recovery Well
ORP – Reduction Potential	DRO/GRO extended – Diesel Range Organics, Gasoline Range Organics, Motor Oil Range Organics – Method 8015D (or as modified)	MW = Monitor Well; OW – Observation Well; PW = Raw Water Production
Temp – Temperature	SVOCs – Semi-Volatile Organic Compounds including phenols – Method 8270	STP-1 to EP-2 – samples collected at inlet to EP-2
EC – Electrical or Specific Conductivity	General Chemistry – pH, specific conductance, cations, anions	NAPIS-1= (KA-1R); NAPIS-2 = (KA-2R); NAPIS-3 = (KA-3R)
TDS – Total Dissolved Solids	Method 8011 – 1,2-Dibromethane	MKTF = observation wells for investigation of hydrocarbon seep
VOCs – Volatile Organic Compounds + MTBE – Method 8260	WQCC Metals – include RCRA 8 metals – analyze as totals and dissolved	

NOTES:

1) Addition of Method 8011 – NMED directive 5/18/16 for any wells in which EDC is detected.
2) Addition of Method 8011 – NMED directive 4/16/16

FIGURES

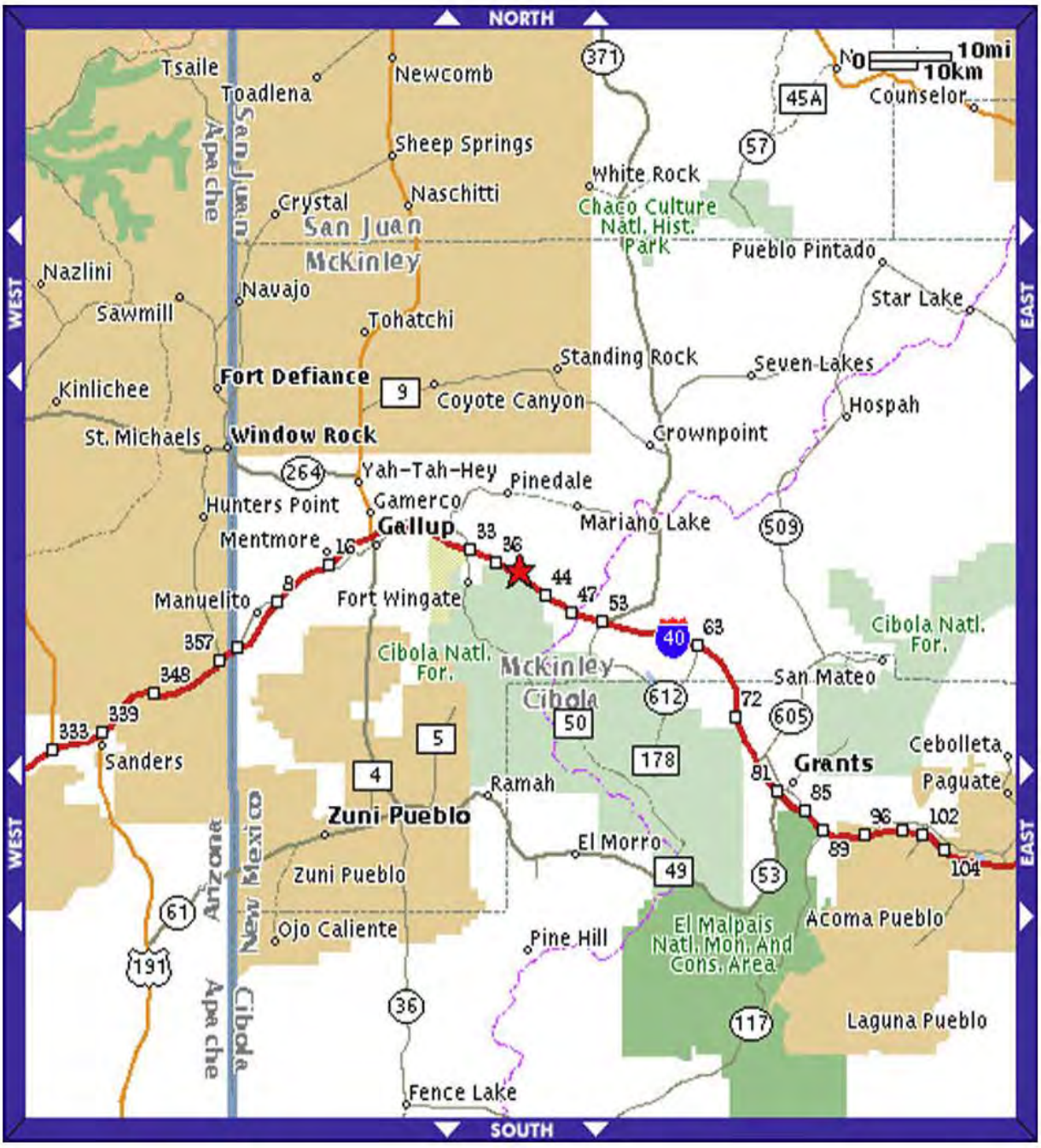


Figure 1: Regional map showing the location of the Gallup Refinery (red star along Interstate-40, 20 miles east of the City of Gallup).

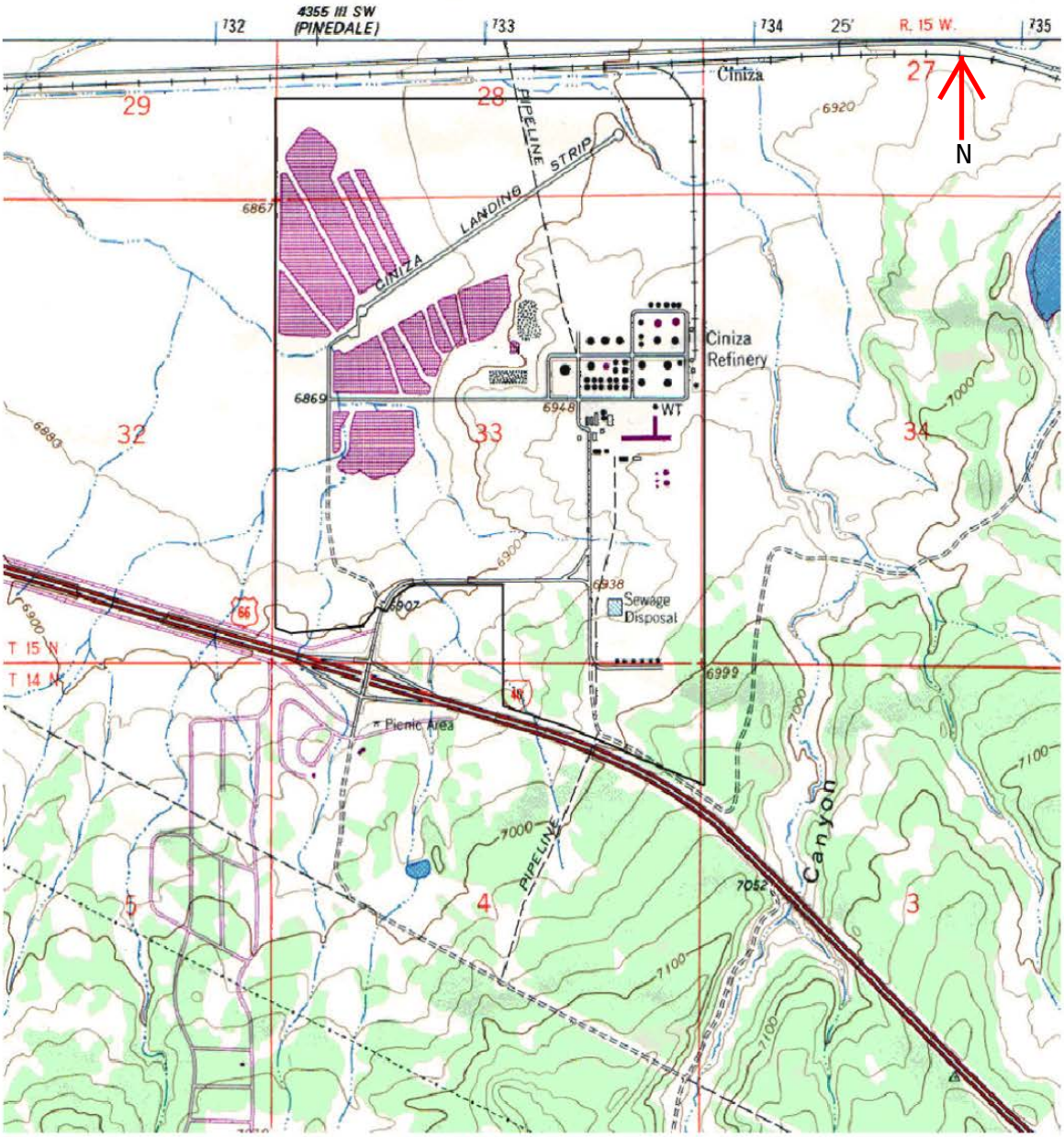
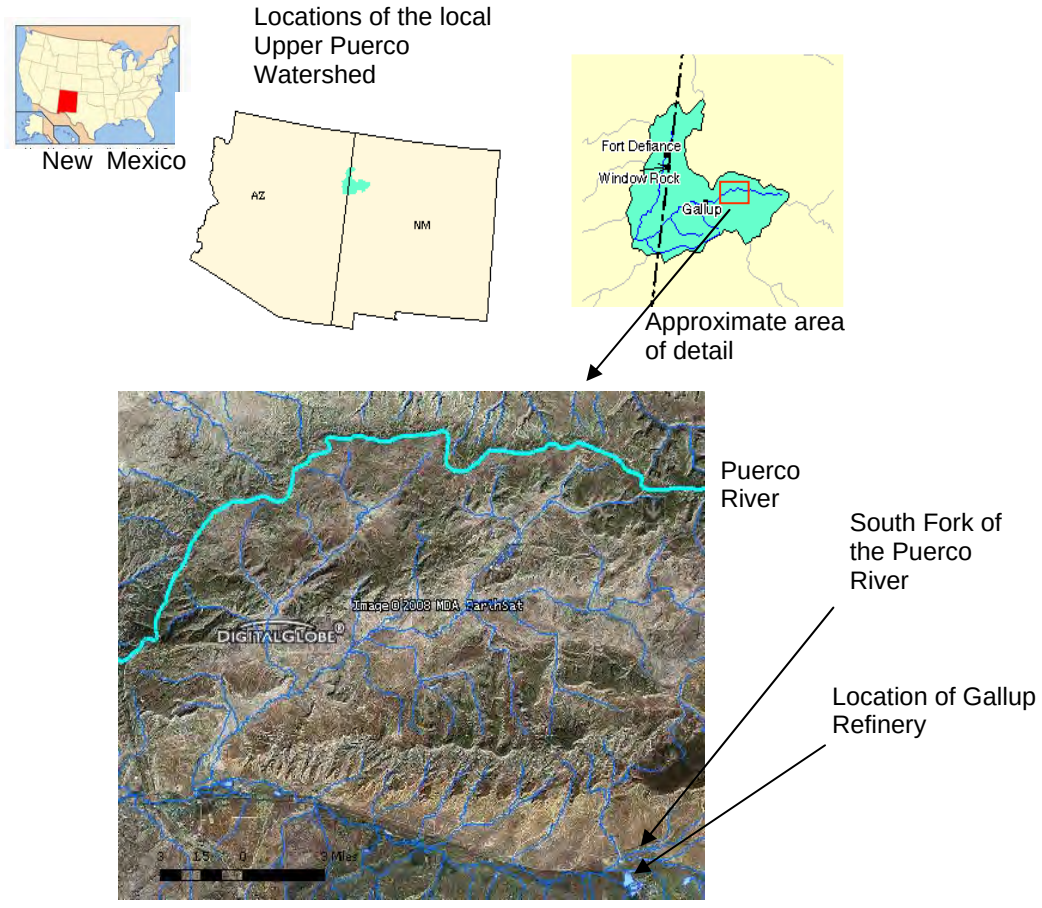


Figure 2: Topographic Map of the Gallup Refinery Site - USGS Topographical Map - Gallup Quadrangle (Revised 1980)

Figure 3: Aerial photograph of the Gallup Refinery

Figure 4: **Regional scale**: Flow lines and major surface water bodies (from: EPA Enviromapper - http://map24.epa.gov/EMR/?ZoomToWatershed=15020006) North is towards the top of the page.



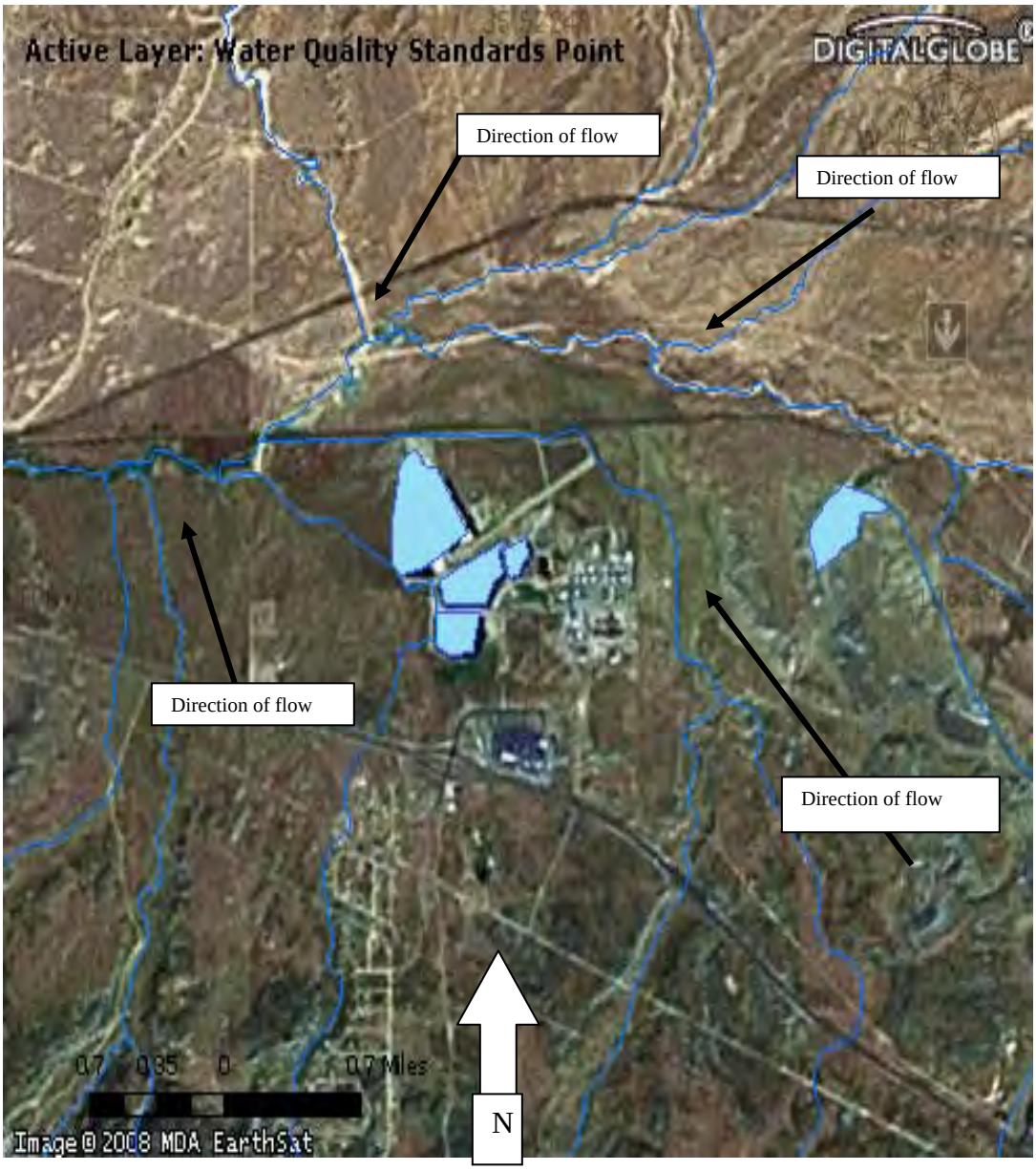
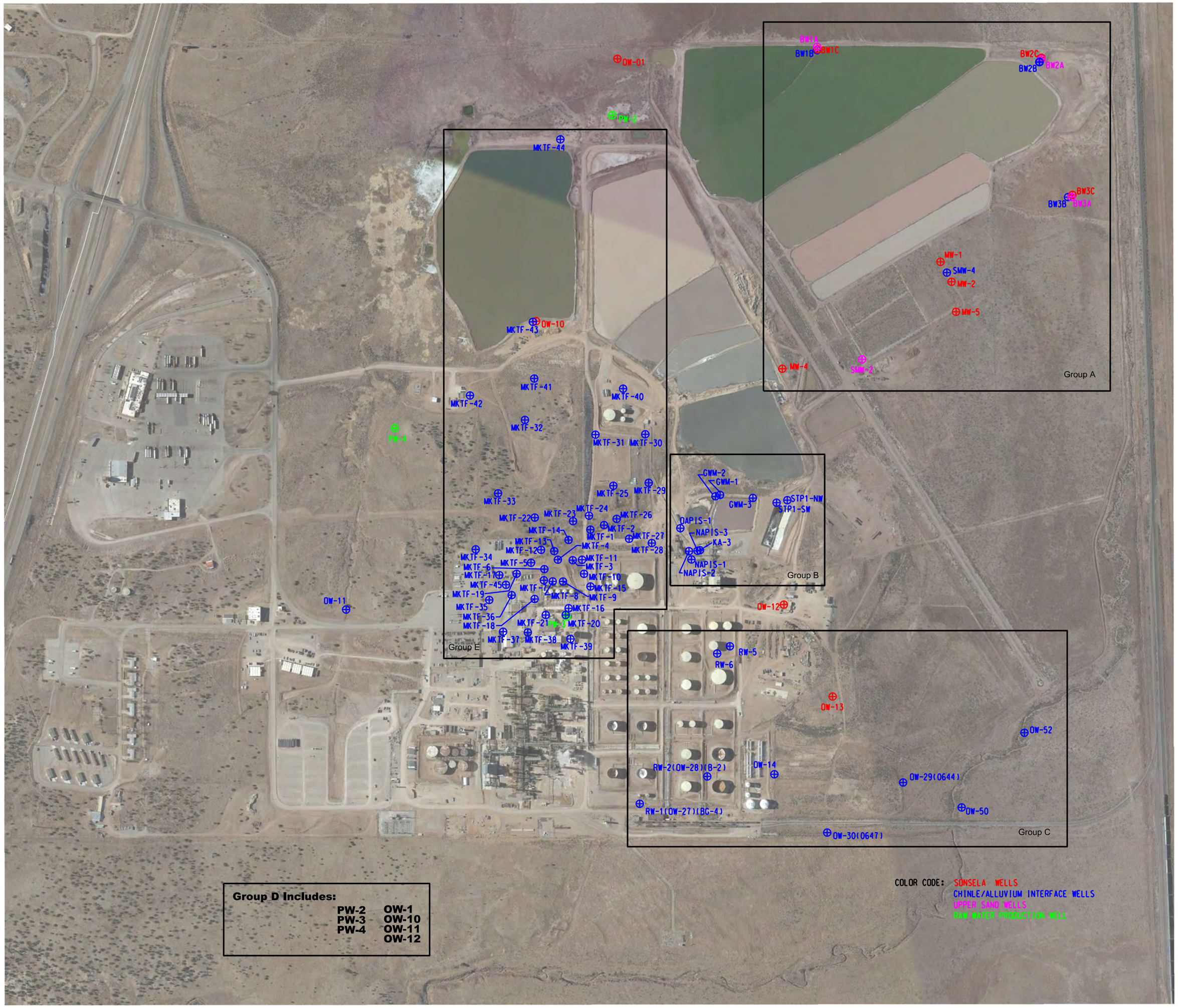


Figure 5: Localized scale: Flow lines and major surface water bodies (from: EPA Enviromapper - http://map24.epa.gov/EMR/?ZoomToWatershed=15020006) North is towards the top of the page. The pond to the east is Jon Myers' Livestock Pond.



psi
4601 Ripley
El Paso, Texas
79922
915-584-1317

1"=500'

Project #: 06251318

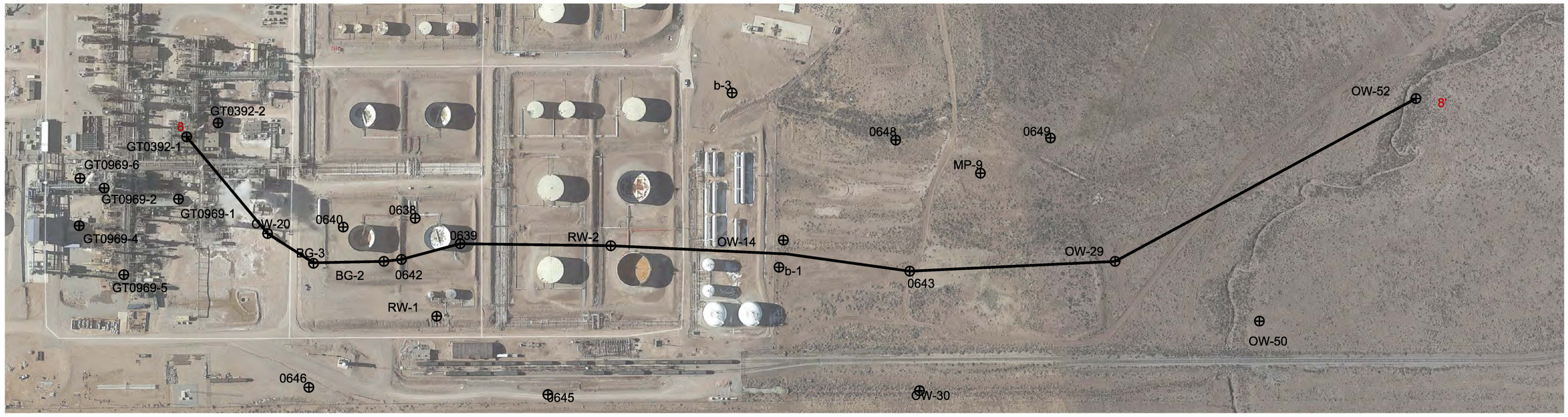
Figure 6

FACILITIES AND WELL GROUPS - 2016

WESTERN REFINING - GALLUP REFINERY

Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

Date: August 9, 2017



Profile East 8-8'

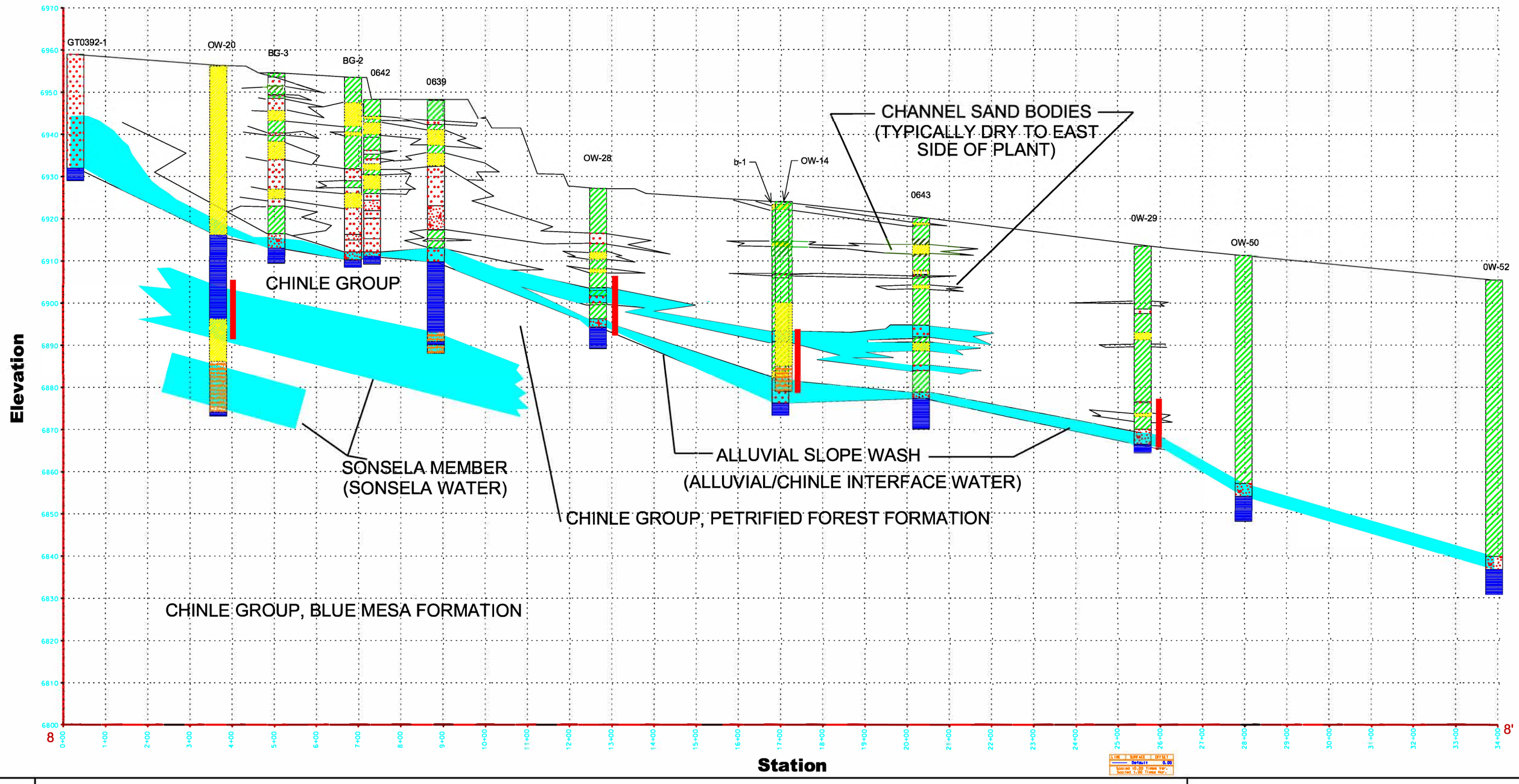


Figure 7

TYPICAL SOUTH-NORTH GEOLOGIC PROFILE (E. PLANT)

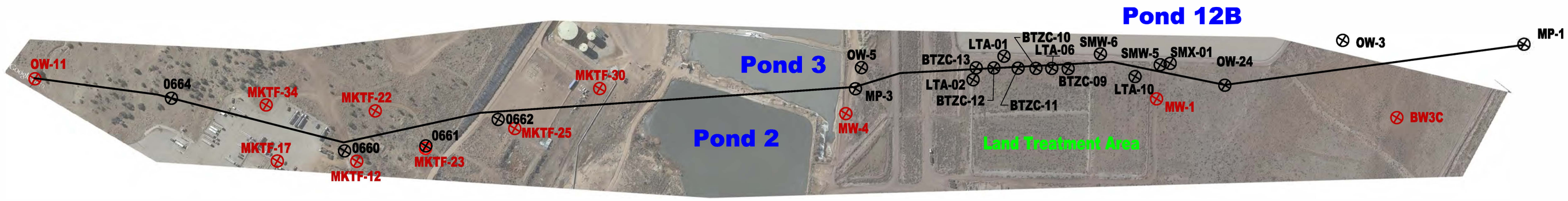
WESTERN REFINING - GALLUP REFINERY

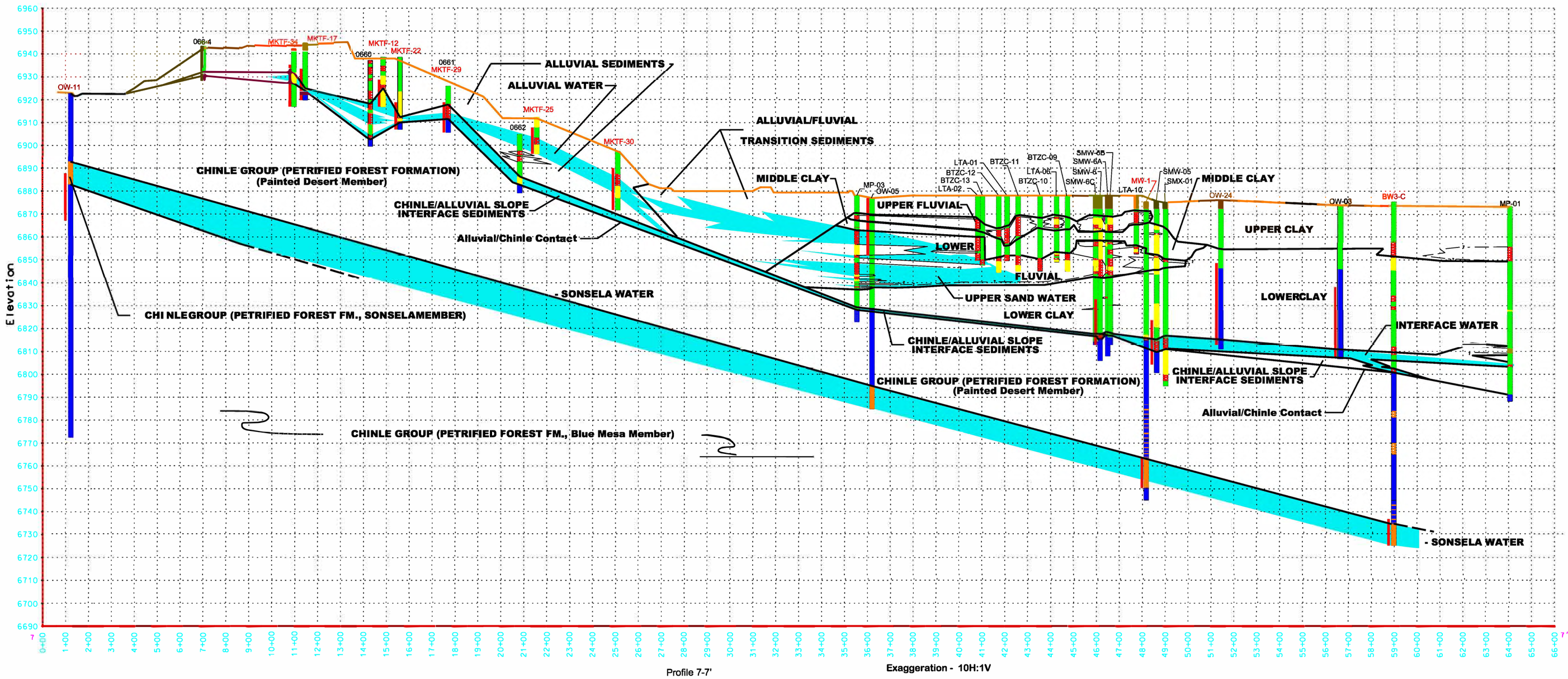
psi
4601 Ripley
El Paso, Texas
79922
915-584-1317

Project #: 0625859

Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

Date: August 30, 2017





LEGEND

- CLAY
- SANDY CLAY OR CLAYEY SAND
- SAND
- SILT
- SHALE (CHINLE GROUP)
- SANDSTONE (NOT PART OF THE SONSELA)
- SONSELA SANDSTONE MEMBER (CHINLE GROUP)
- PROFILE LINE
- WATER BEARING ZONE
- SCREENED INTERVAL
- OW-XX, MW-XX, MKTF-XX, BW3-C — ACTIVE MONITORING WELL
- LTA-10 — BORING OR CLOSED WELL

psi
4601 Ripley
El Paso, Texas
79922
915-584-1317

Project #: 06251104

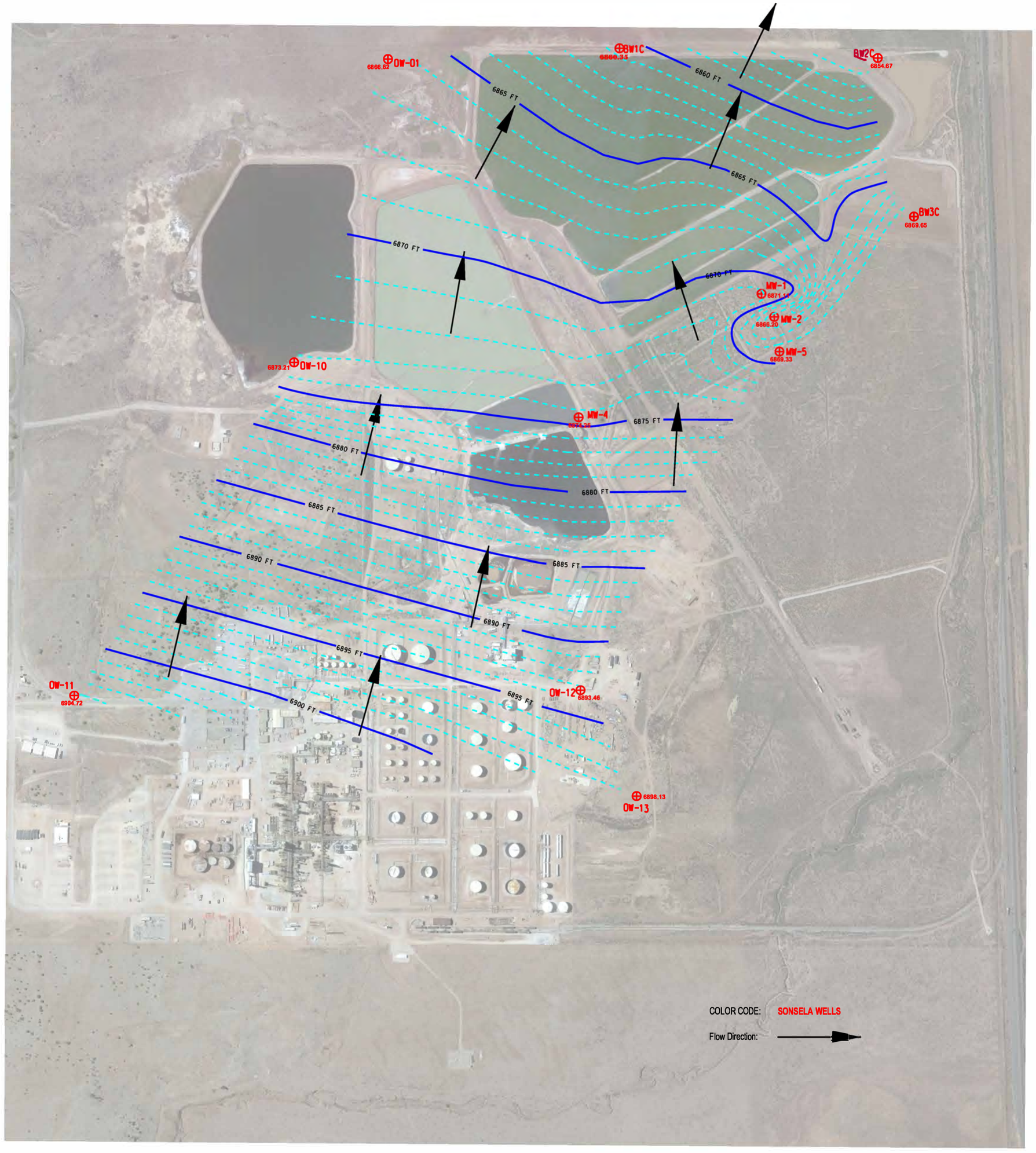
Figure 8

S - N Section - Westerly Plant Area

WESTERN REFINING - GALLUP REFINERY

Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

Date: August 8, 2017



psi
4601 Ripley
El Paso, Texas
79922
915-584-1317

1"=500'

Project #: 06251318

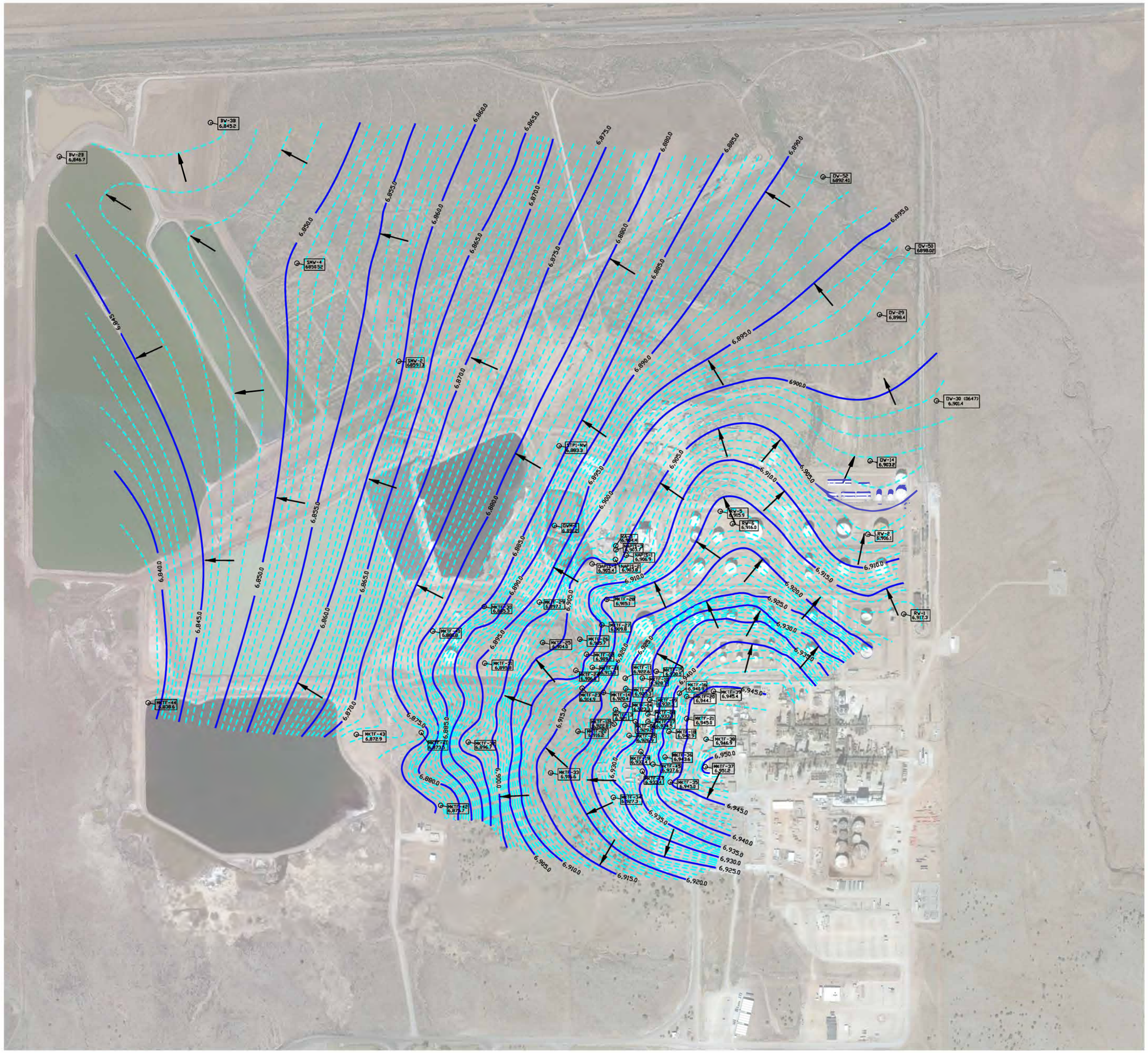
Figure 9

Sonsela Water Elevation Map 2016

WESTERN REFINING - GALLUP REFINERY

Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

Date: August 4, 2017



CHINLE/ALLUVIUM INTERFACE WELLS

FLOW DIRECTION: →

psi

4601 Ripley
El Paso, Texas
79922
915-584-1317

N

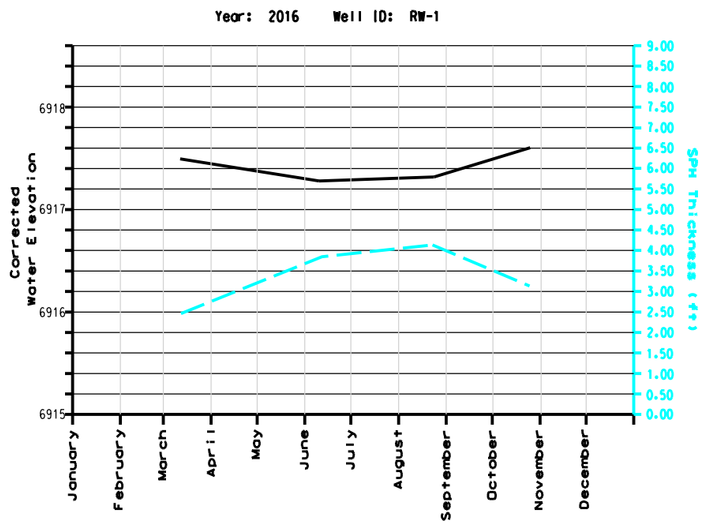
1"=500'

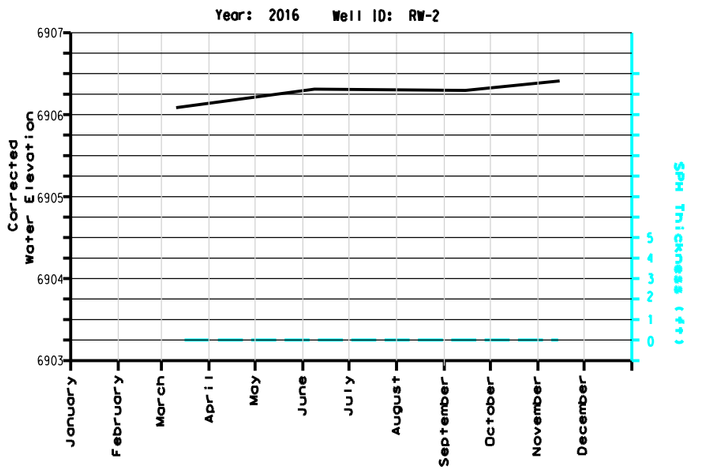
Project #: 06251318

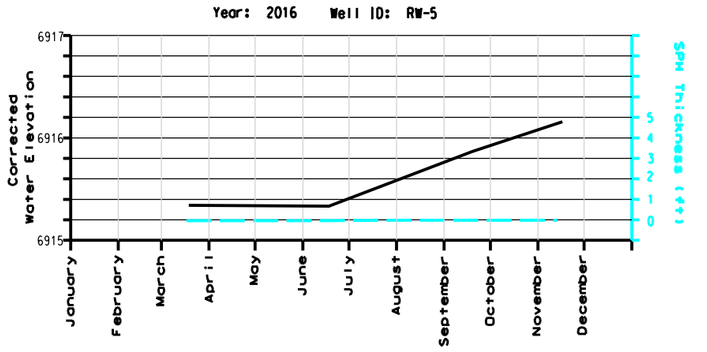
Figure 10
2016
Alluvium/Chinle Gp Interface Water Elevation Map
WESTERN REFINING - GALLUP REFINERY

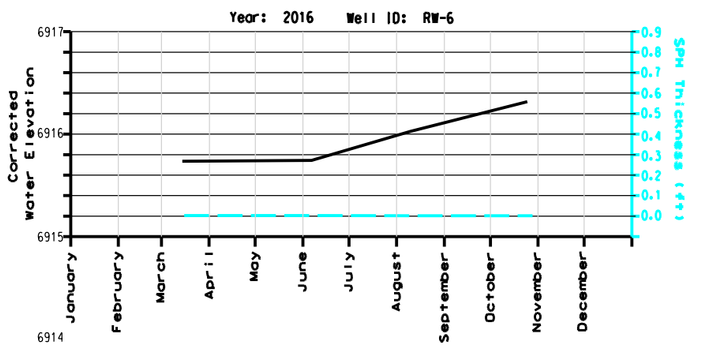
Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

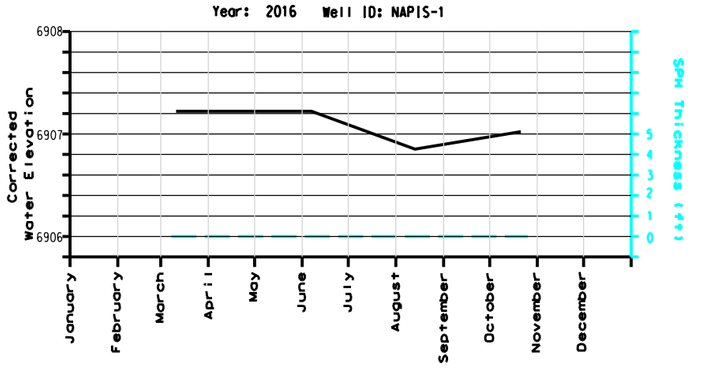
Date: August 1, 2017

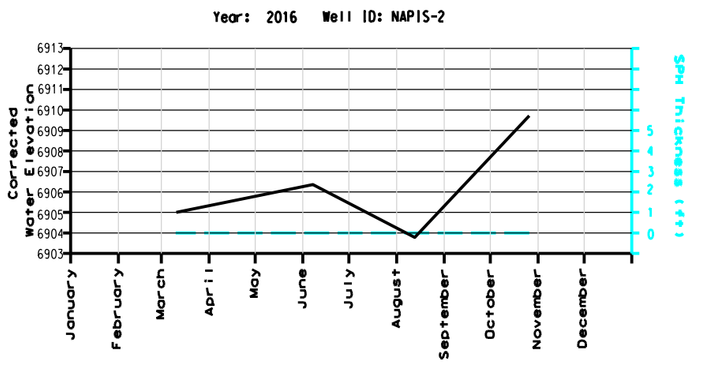


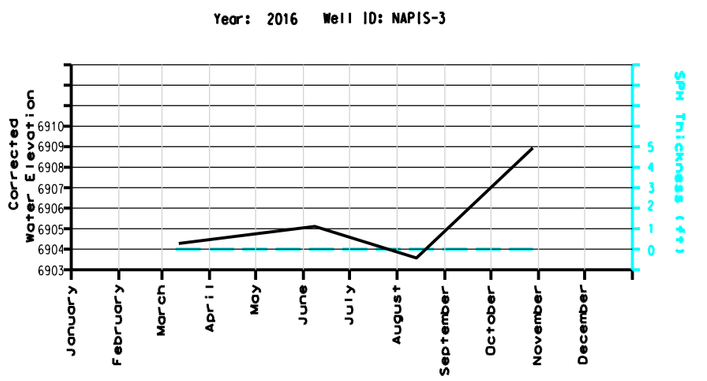


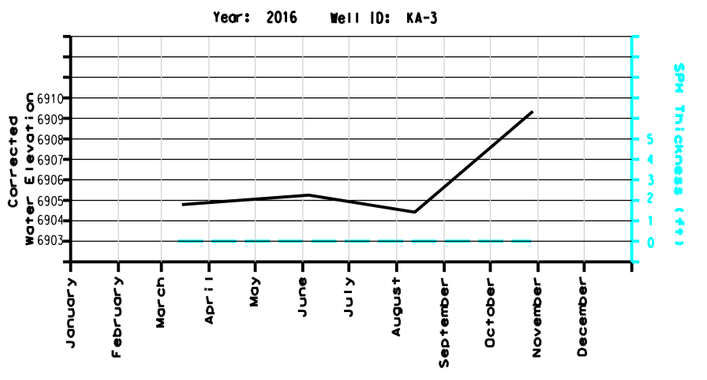


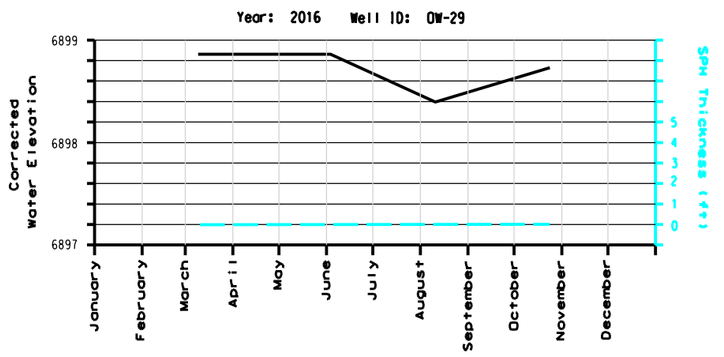


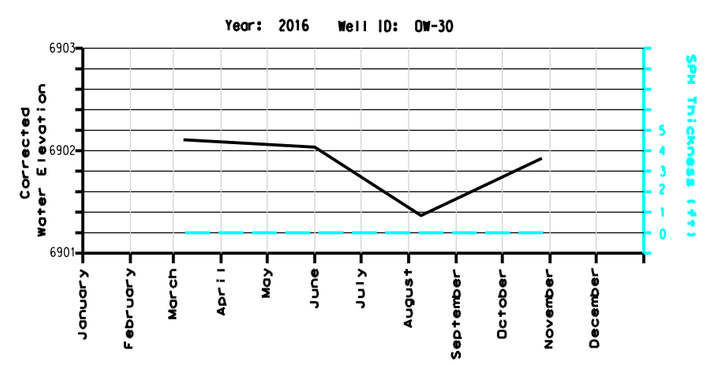


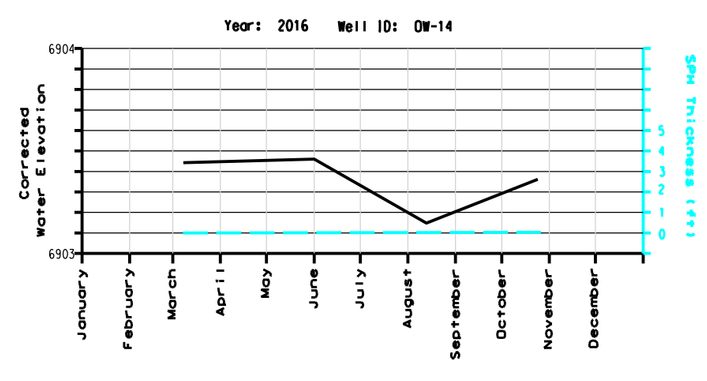


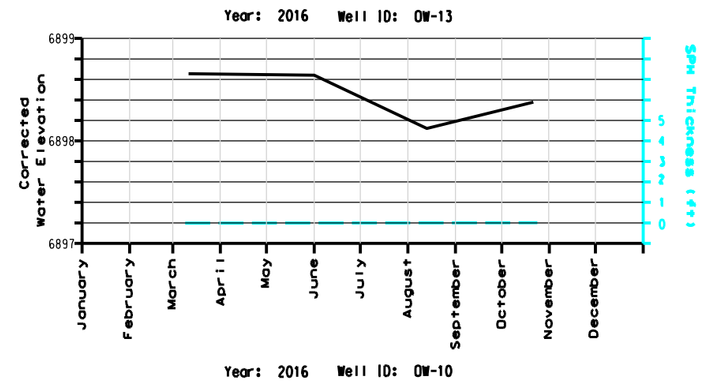


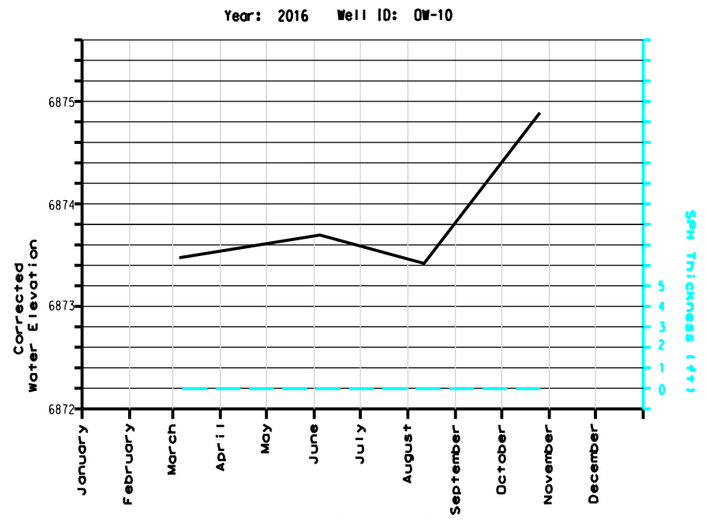


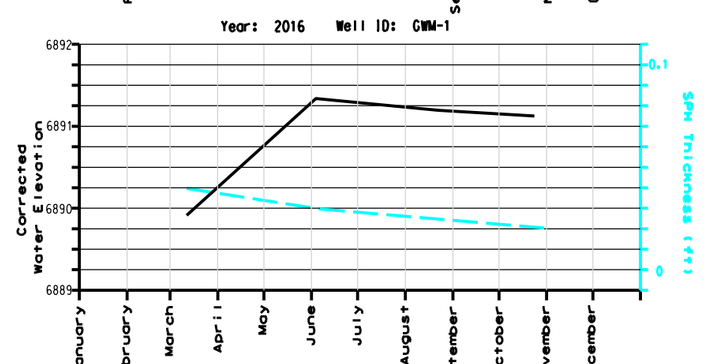


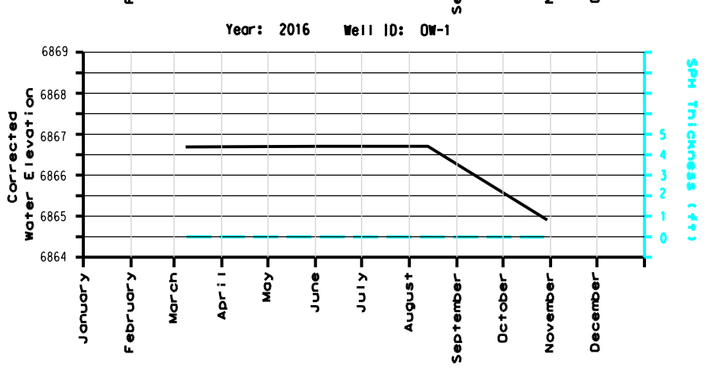


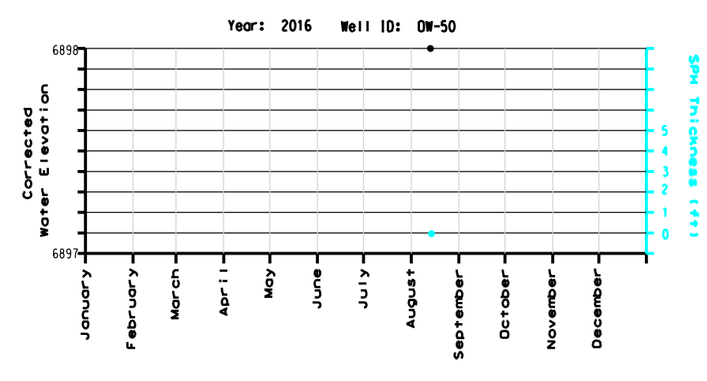


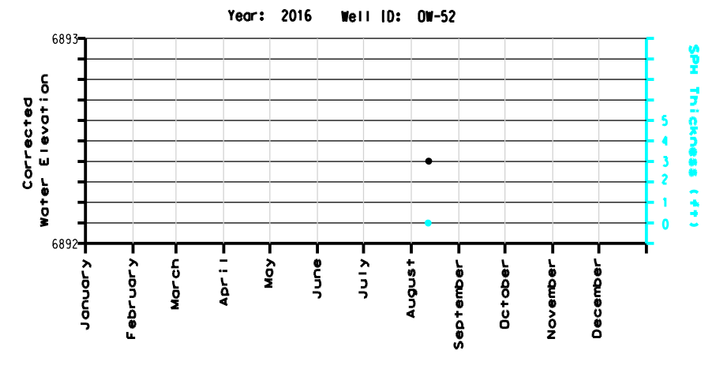


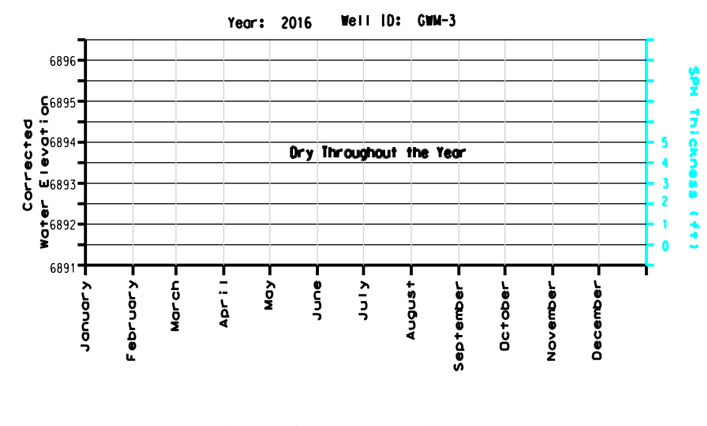


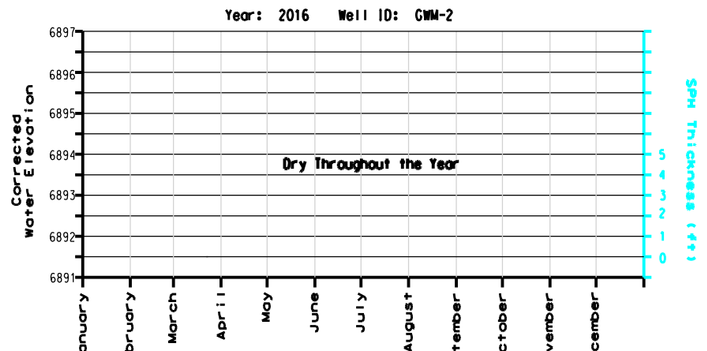












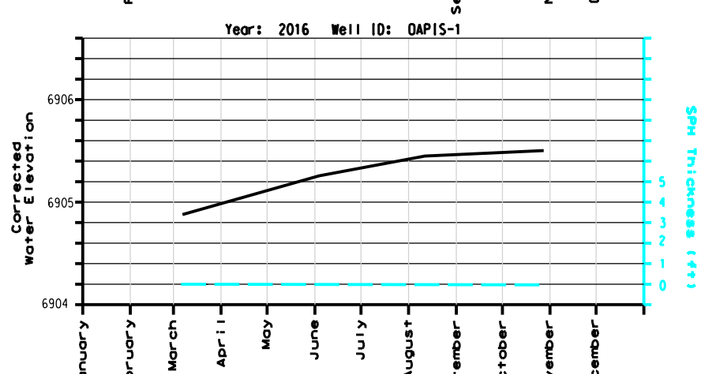


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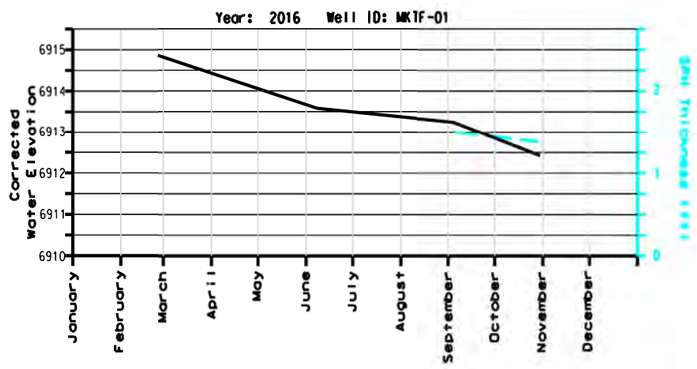
Figure 11

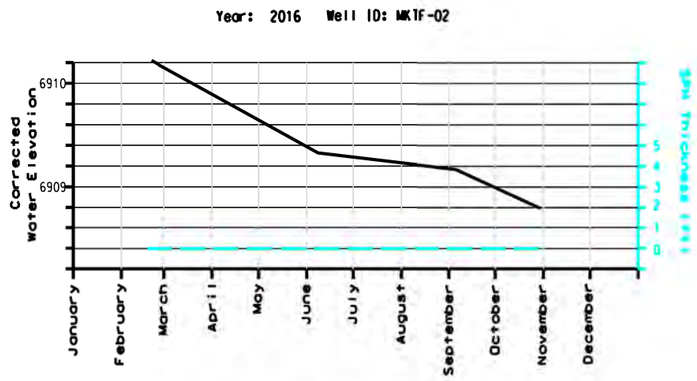
GROUNDWATER ELEVATION VS TIME

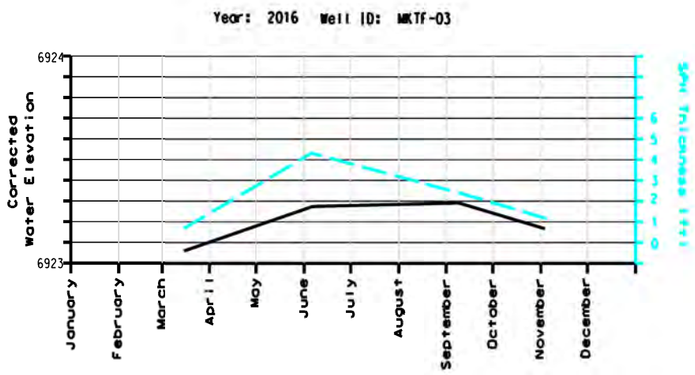
WESTERN REFINING - GALLUP REFINERY

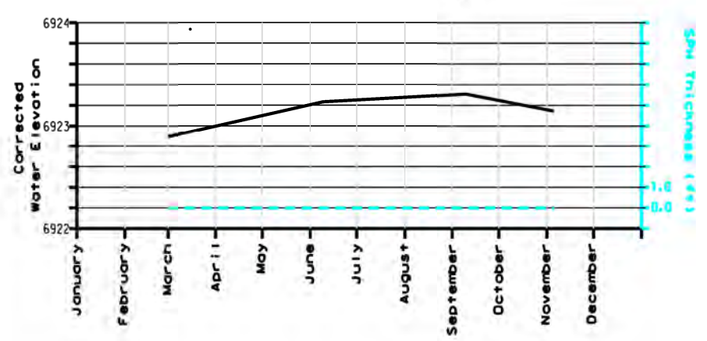
Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

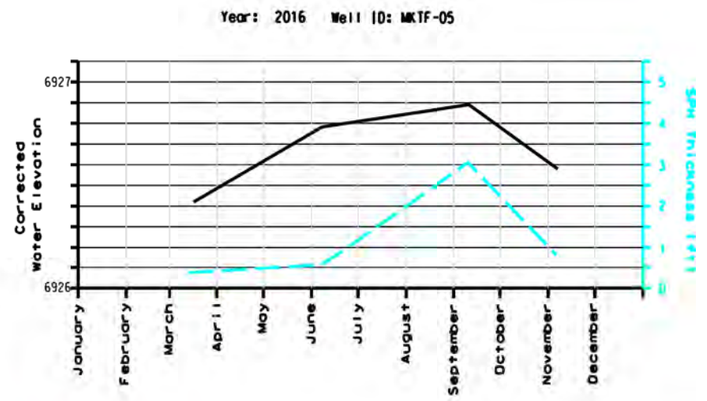
Date: August 31, 2017

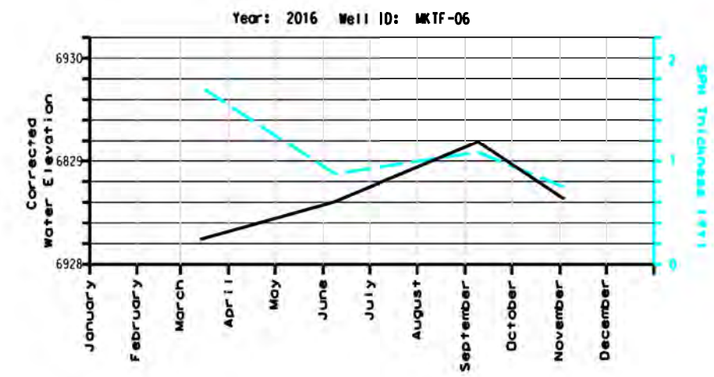


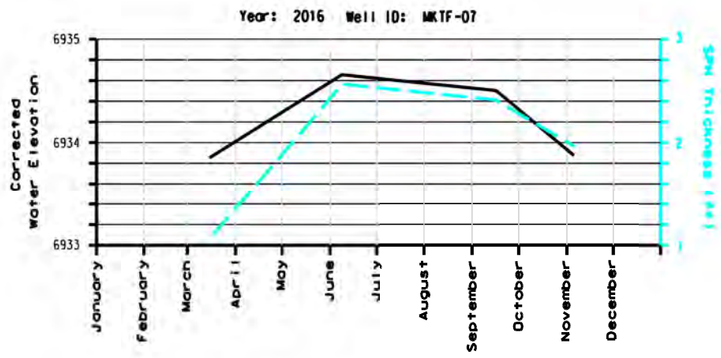


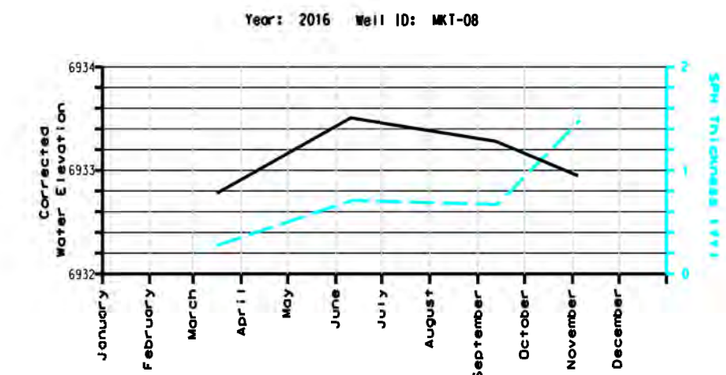


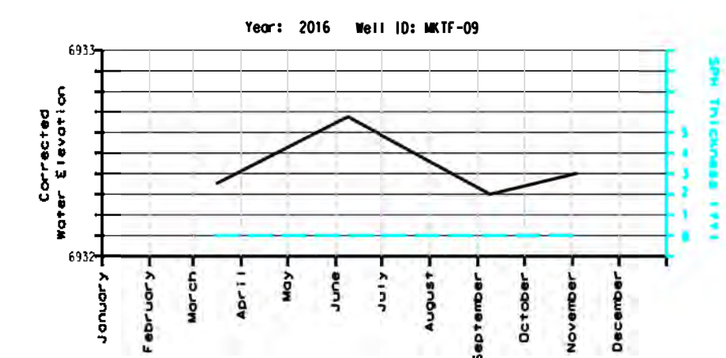


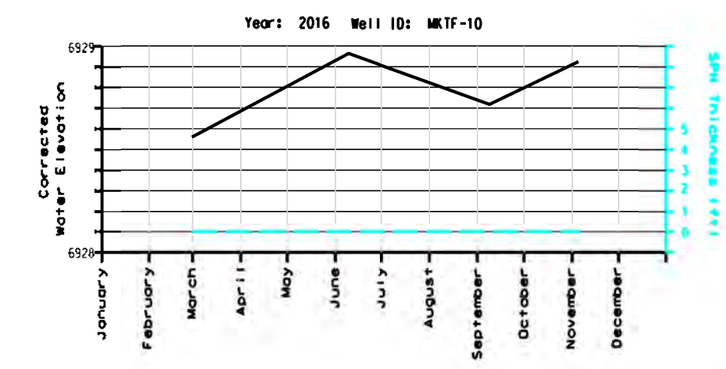


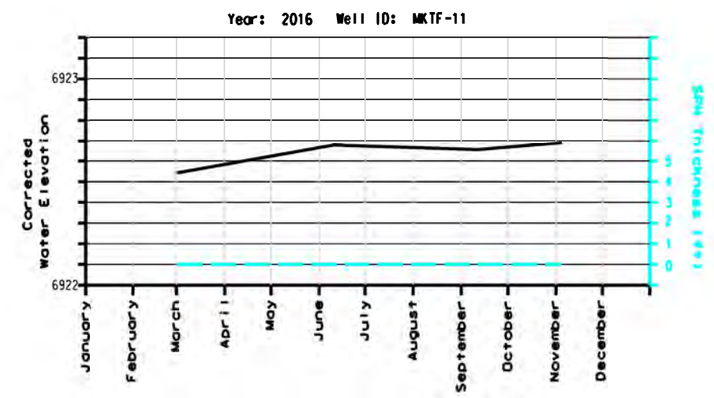


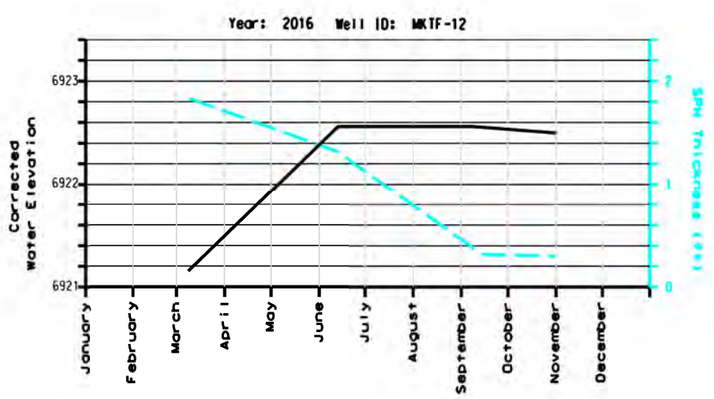


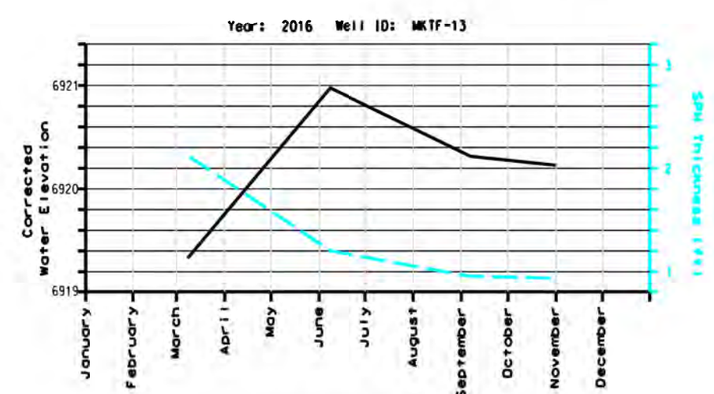


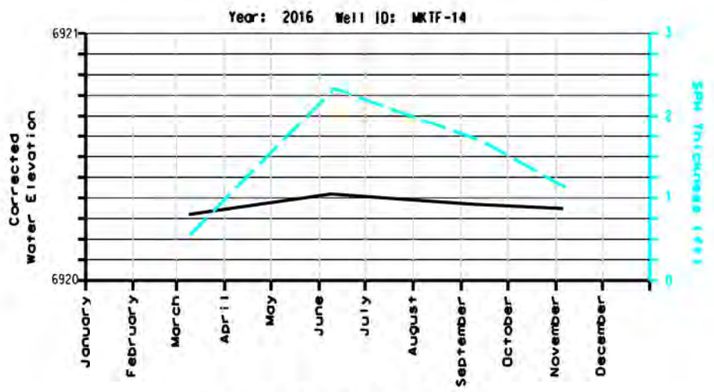


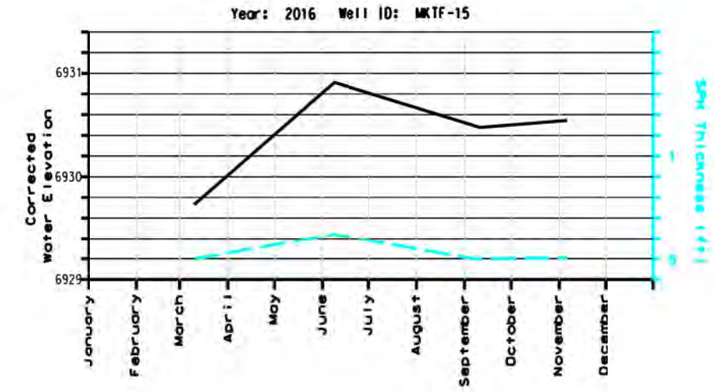


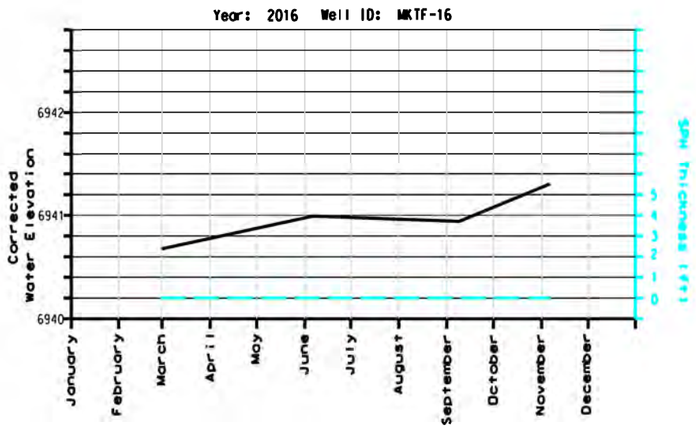


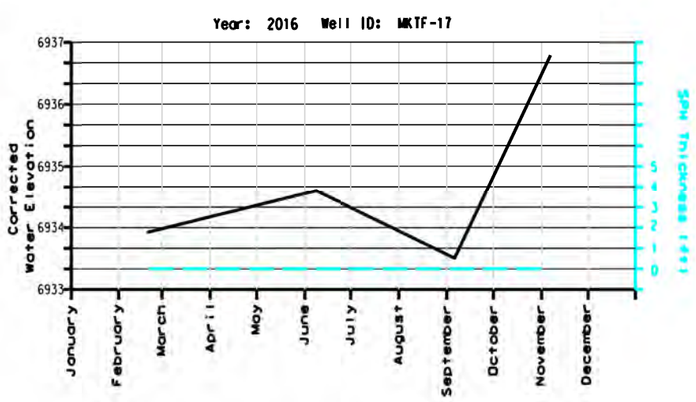


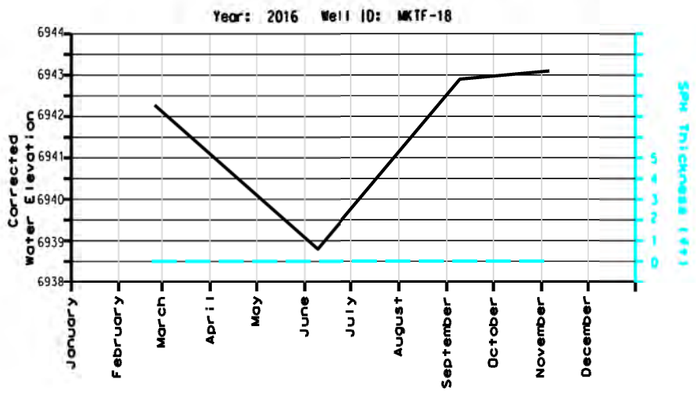


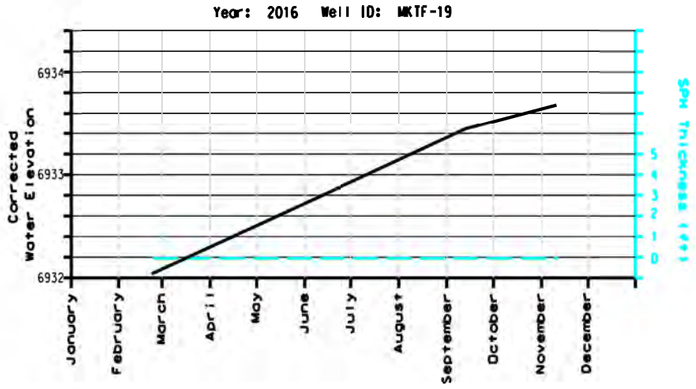












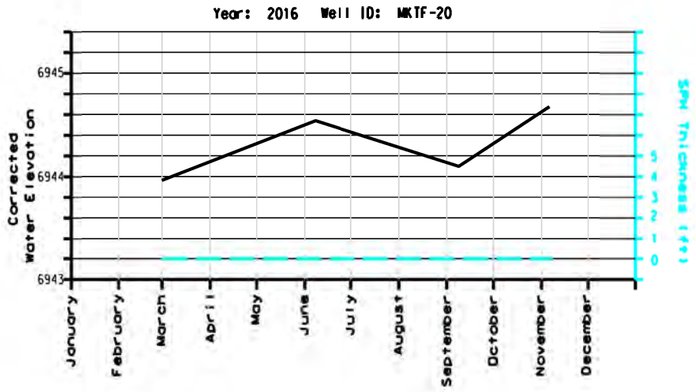


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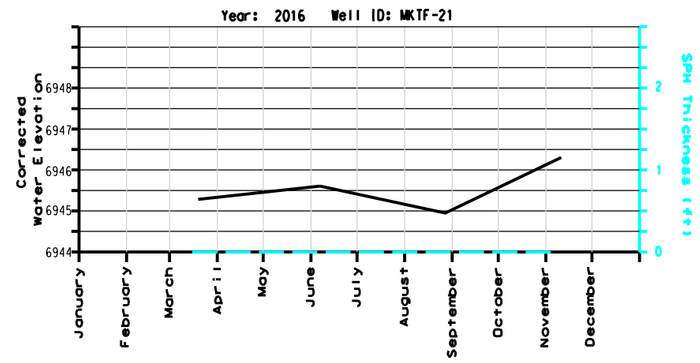
Figure 11A

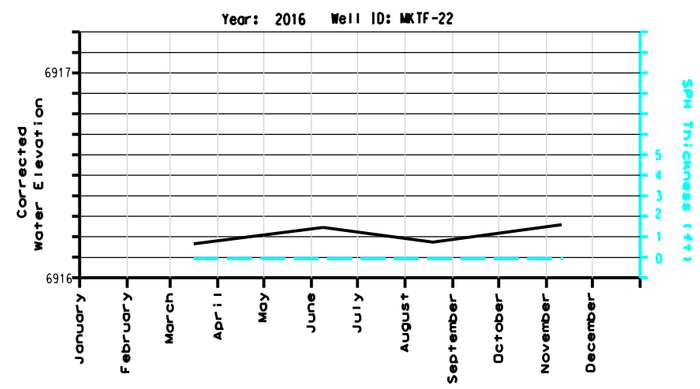
GROUNDWATER ELEVATION VS TIME

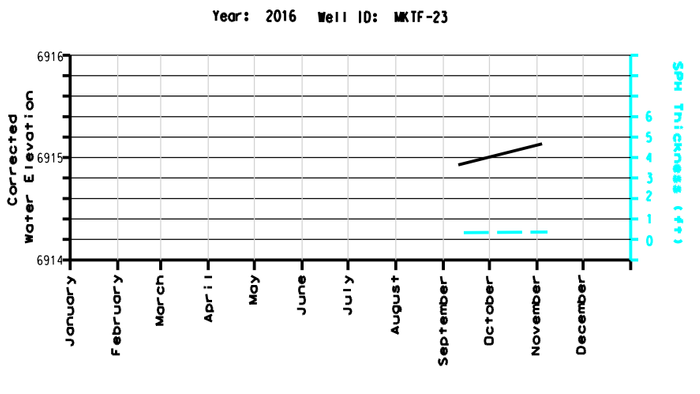
WESTERN REFINING - GALLUP REFINERY

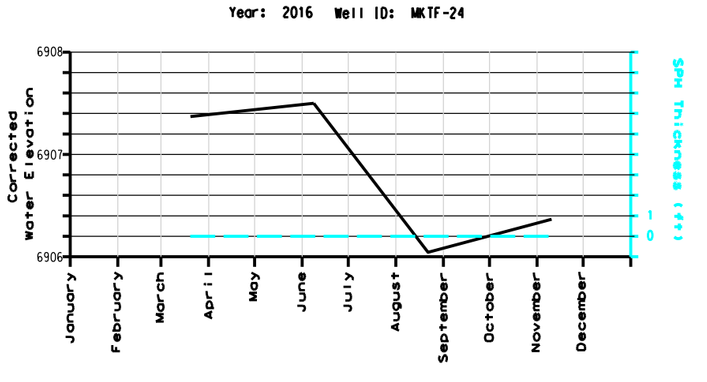
Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

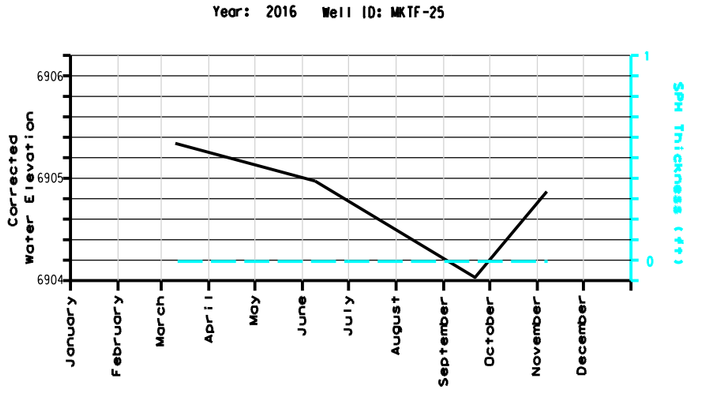
Date: August 31, 2017

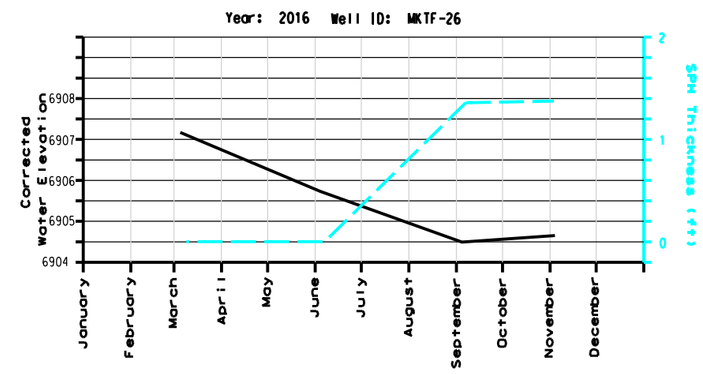


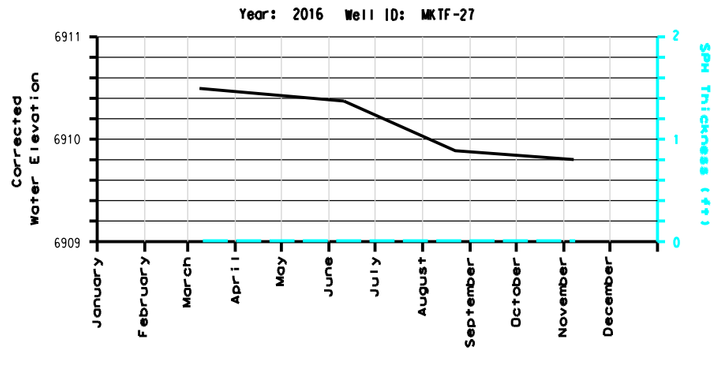


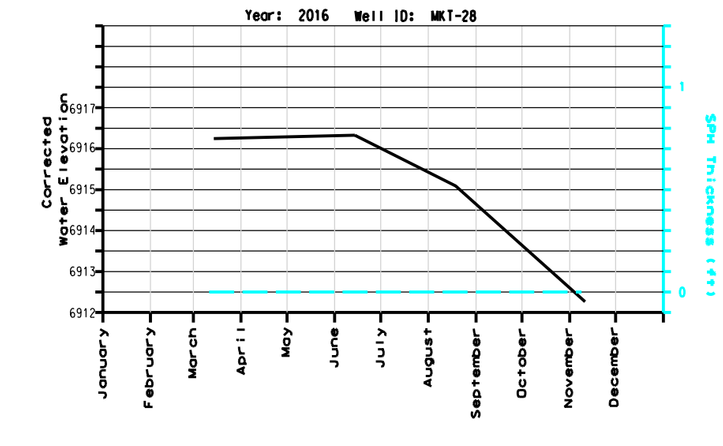


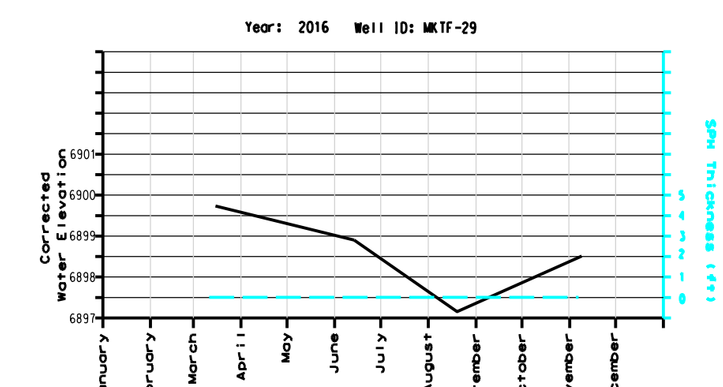


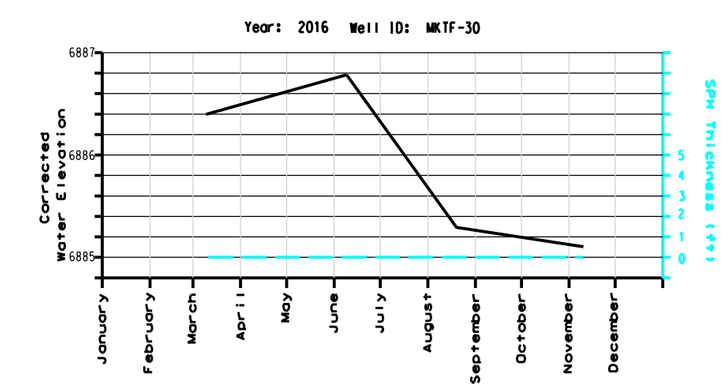


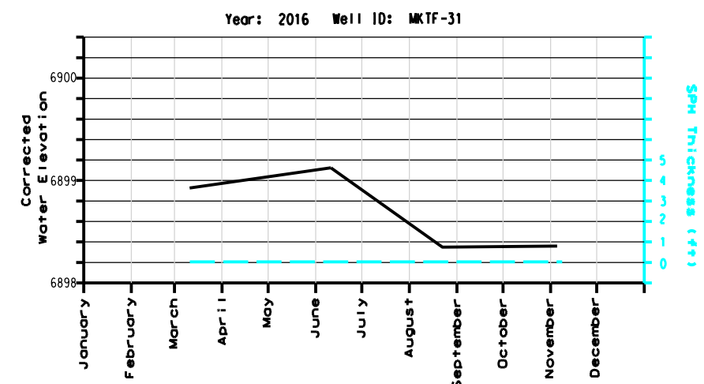


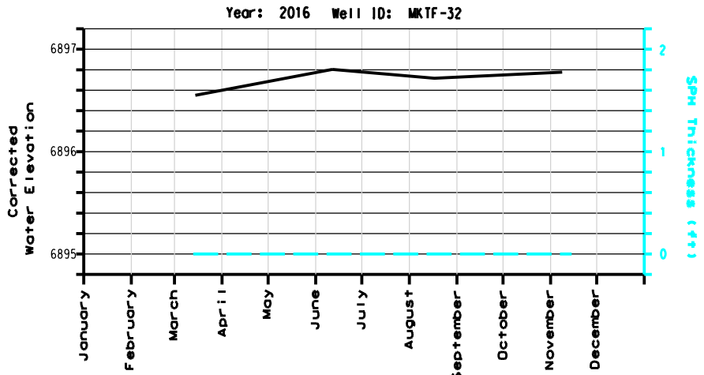


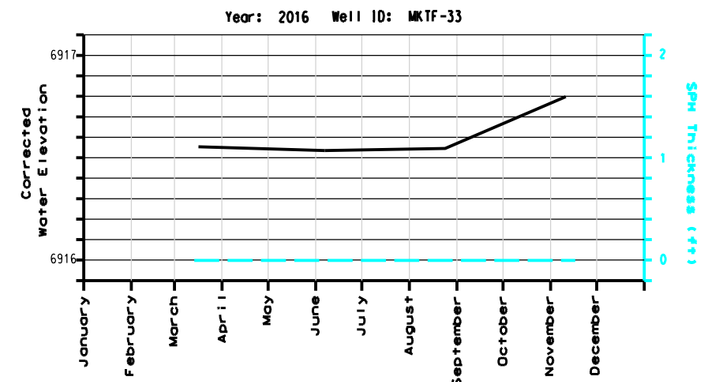


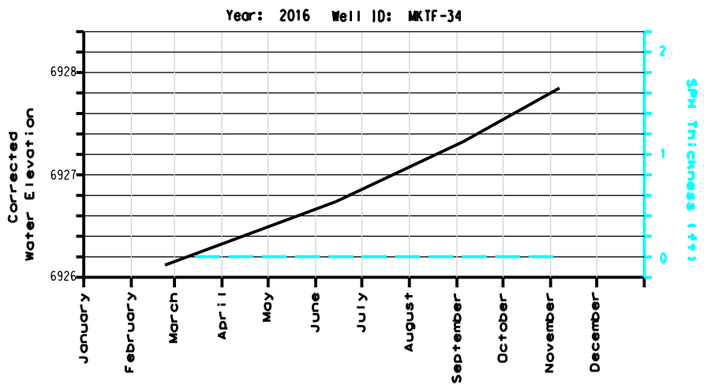


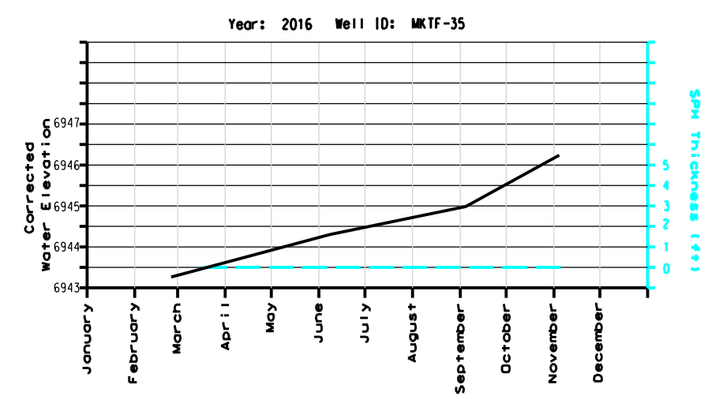


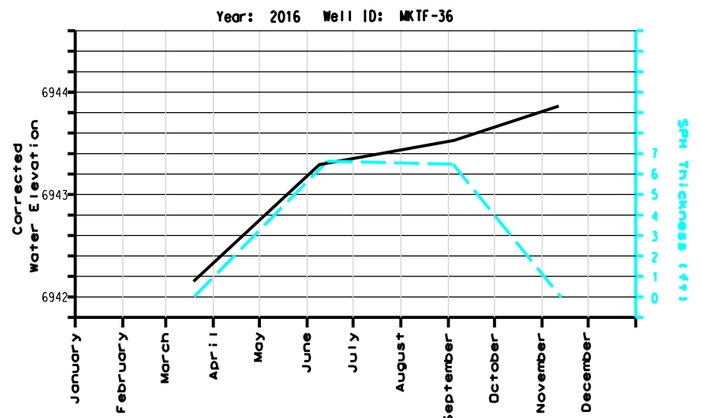


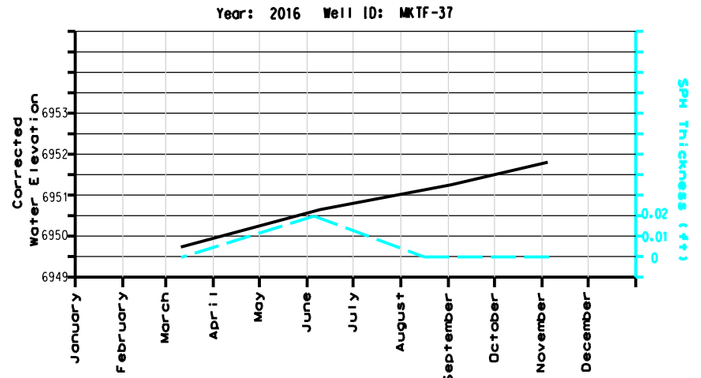


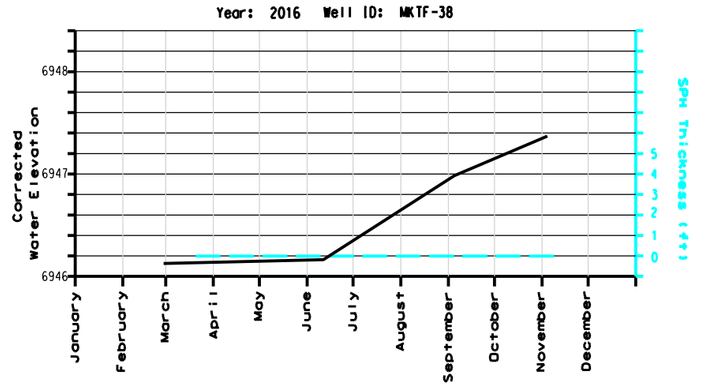


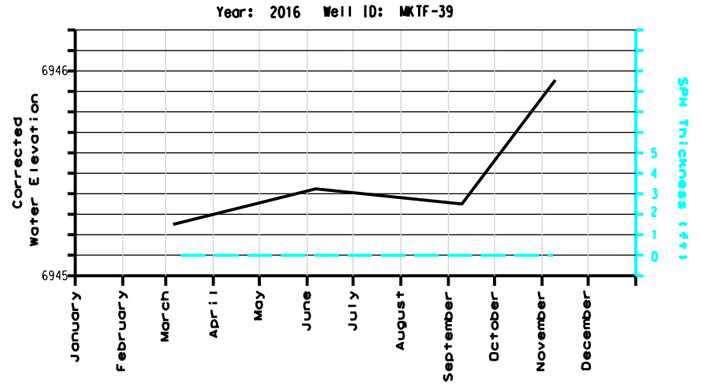












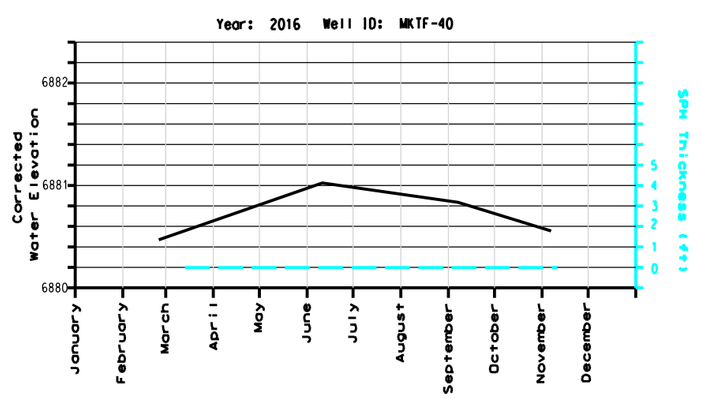


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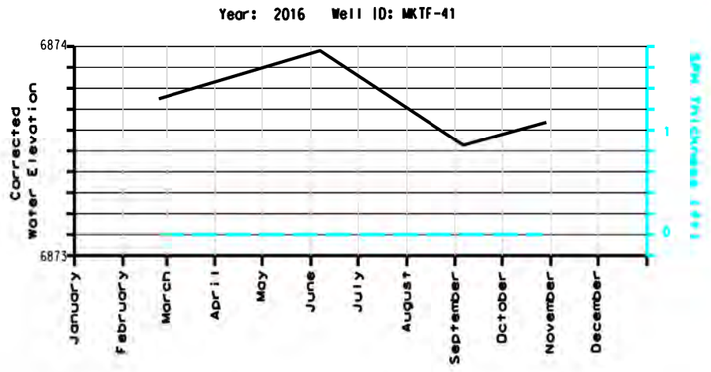
Figure 11B

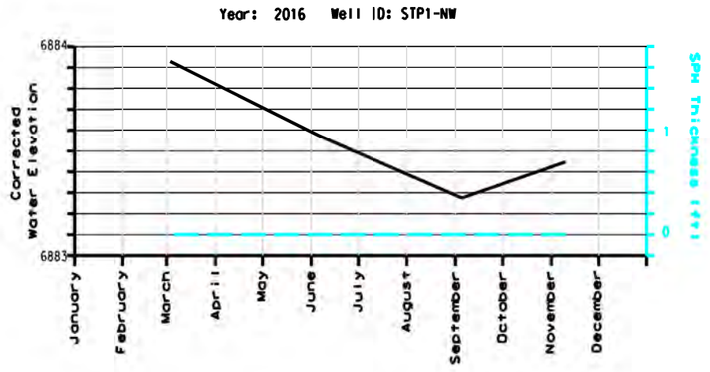
GROUNDWATER ELEVATION VS TIME

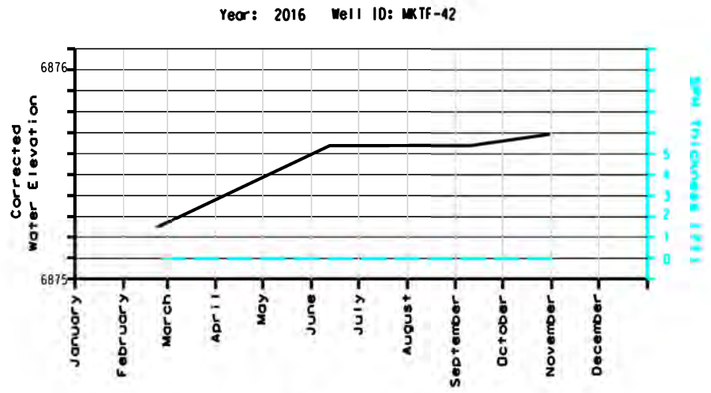
WESTERN REFINING - GALLUP REFINERY

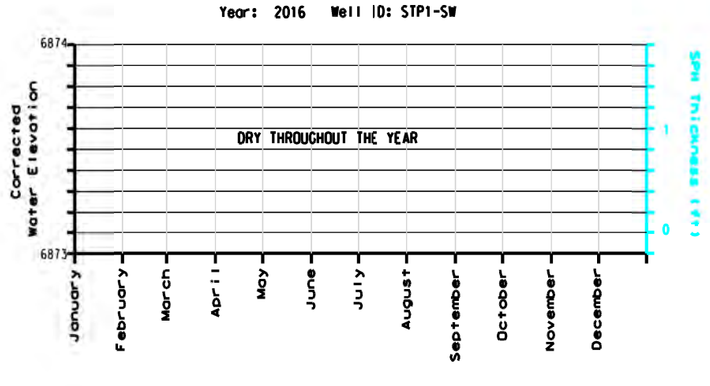
Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

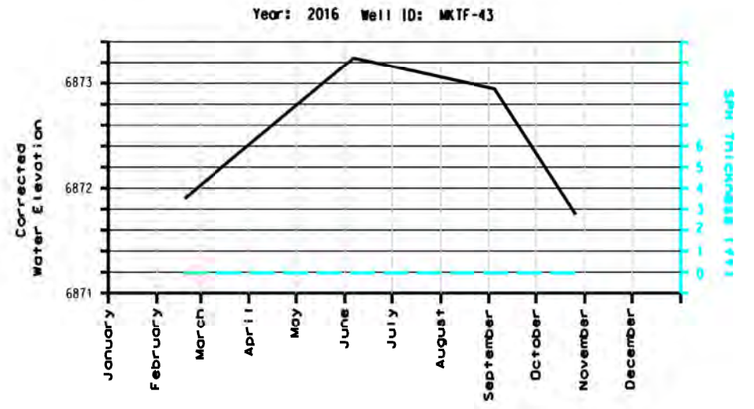
Date: August 31, 2017

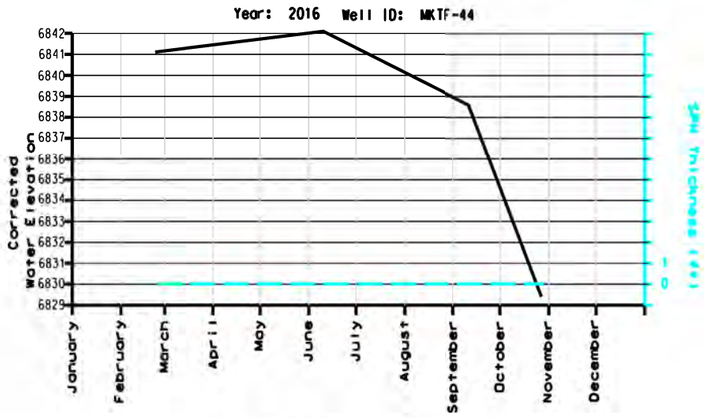


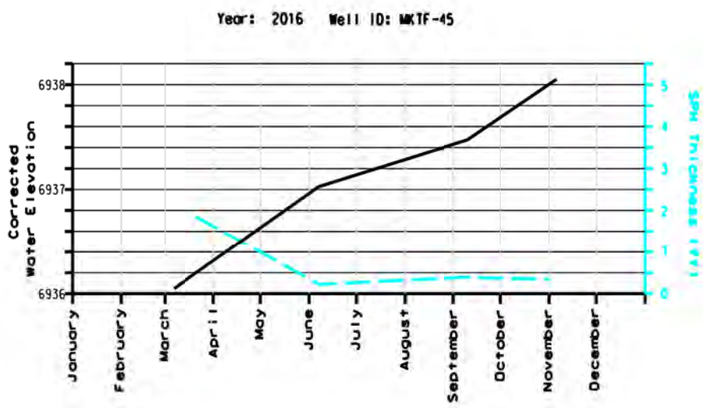












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Project #: 06251318

Figure 11C

GROUNDWATER ELEVATION VS TIME

WESTERN REFINING - GALLUP REFINERY

Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

Date: August 31, 2017

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El Paso, Texas
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915-584-1317

1"=500'

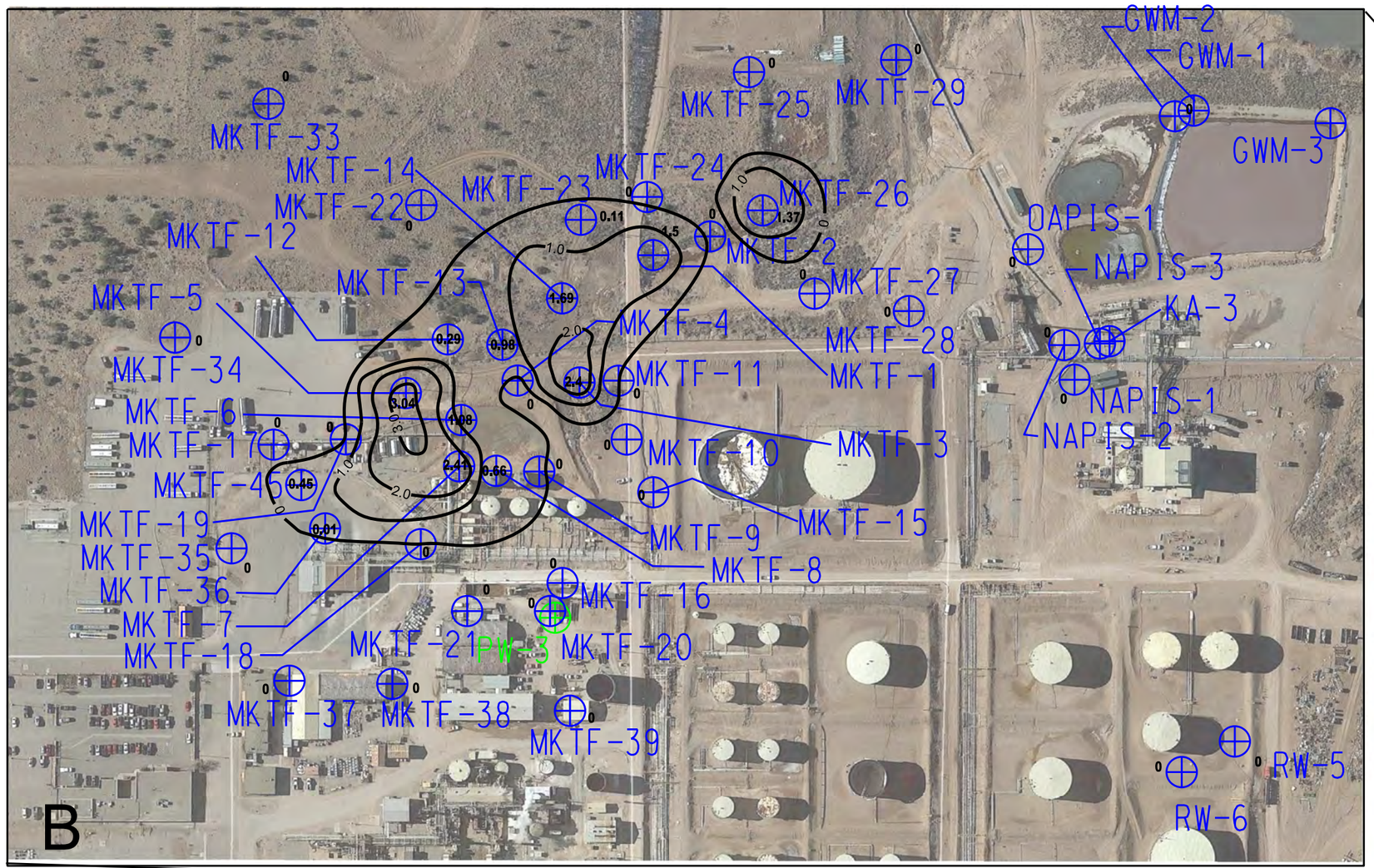
Project #: 06251318

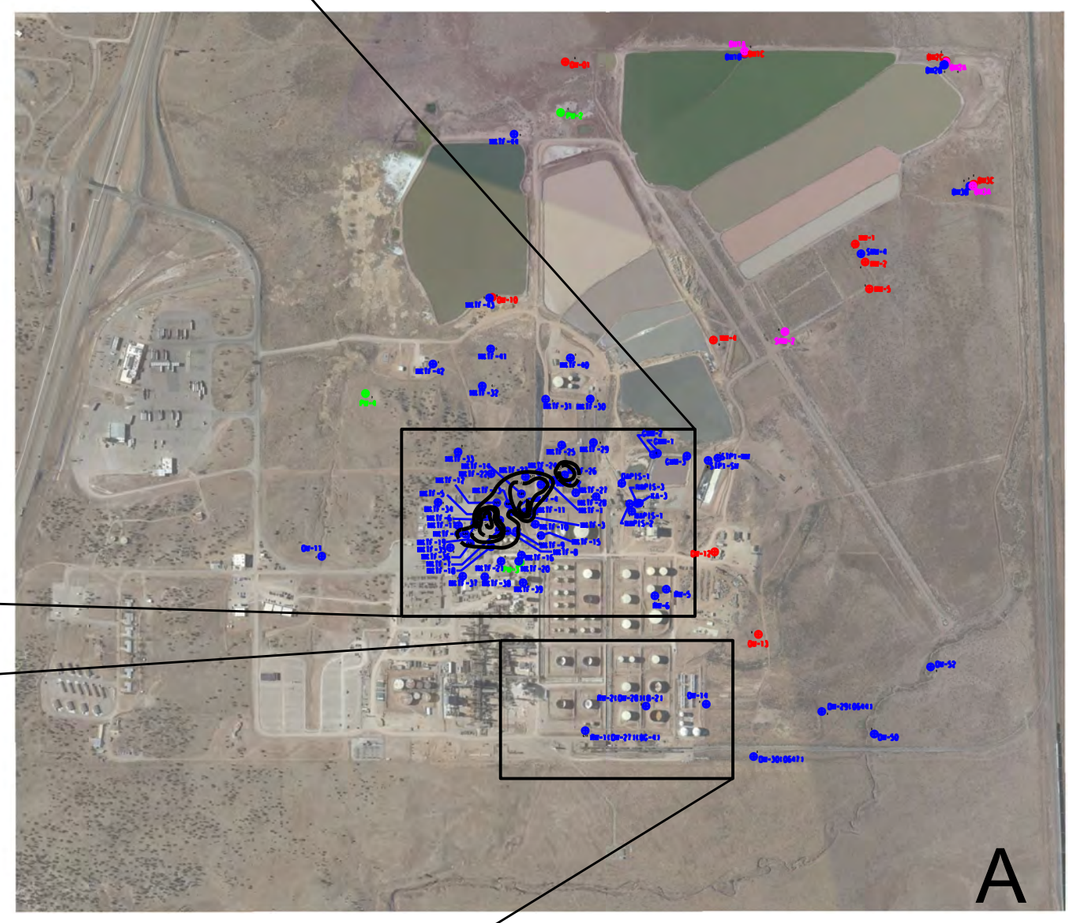
Figure 12

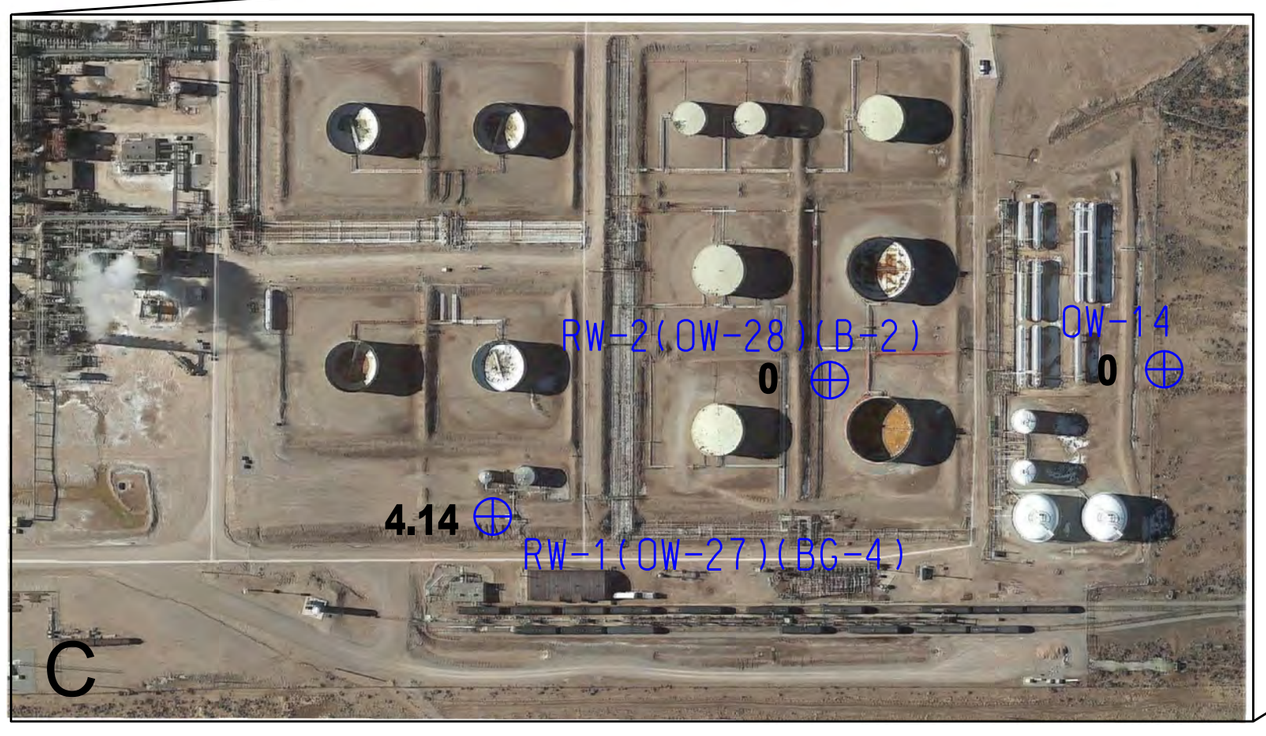
Alluvial/Fluvial Upper Sand Water 2016

WESTERN REFINING - GALLUP REFINERY

Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301
Date: August 5, 2017







SPH Contour Thickness (in feet)

Contour Interval: 1.0'

Scale: Image A - Not to scale
Image B - 1" = 200'
Image C - 1" = 200'

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Line is 1 inch long on original

Project #: 06251318

Figure 13

Product Thickness Map (SPH for 09/16)

WESTERN REFINING - GALLUP REFINERY

Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

Date: August 8, 2017

LEGEND

- CLAY
- SANDY CLAY OR CLAYEY SAND
- SAND
- SILT
- SHALE (CHINLE FORMATION)
- SANDSTONE (CHINLE FORMATION)
- PROFILE LINE
- WATER BEARING ZONE
- SCREENED INTERVAL

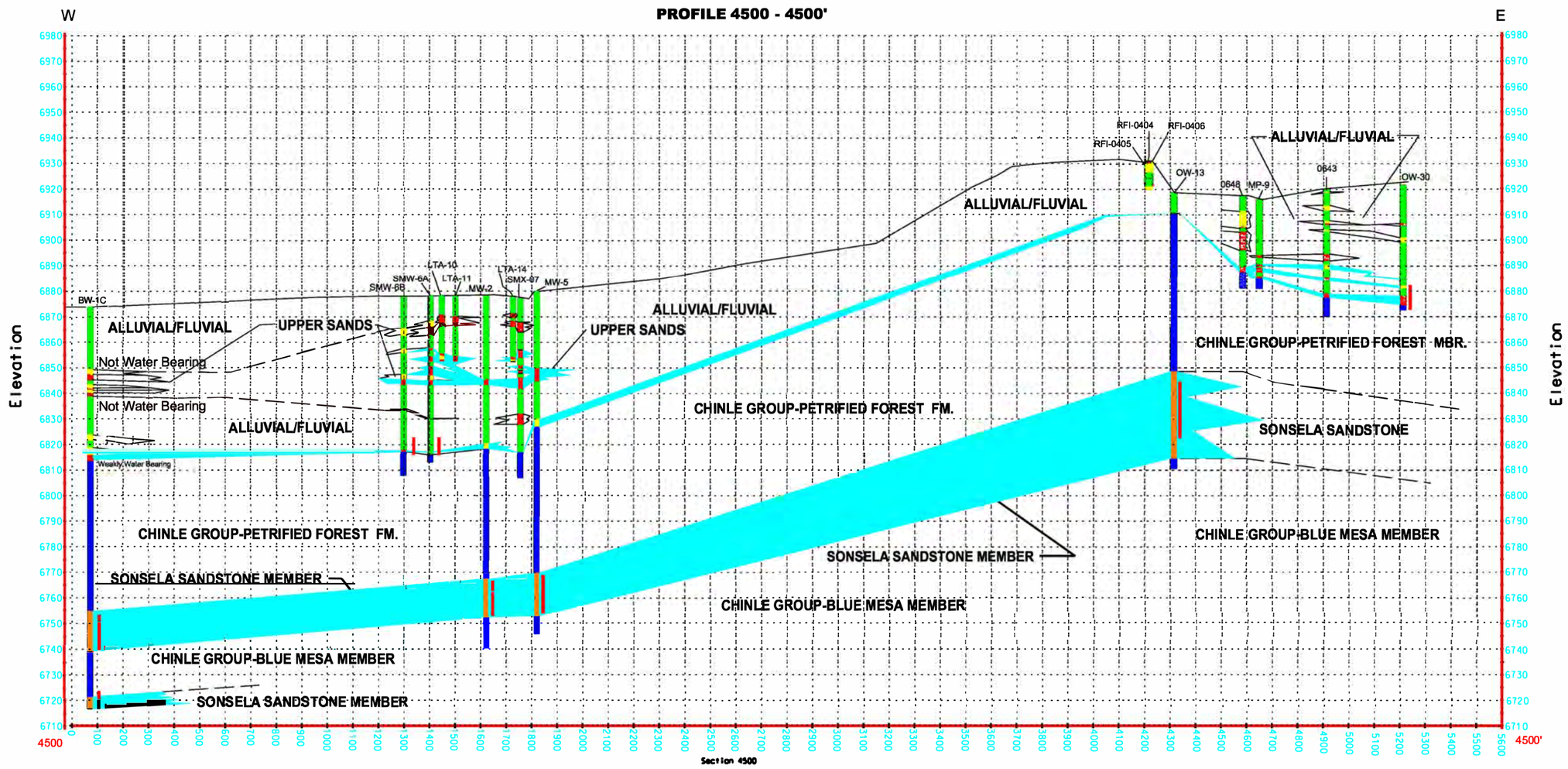

Figure 14

TYPICAL WEST - EAST GEOLOGIC PROFILE

WESTERN REFINING - GALLUP REFINERY

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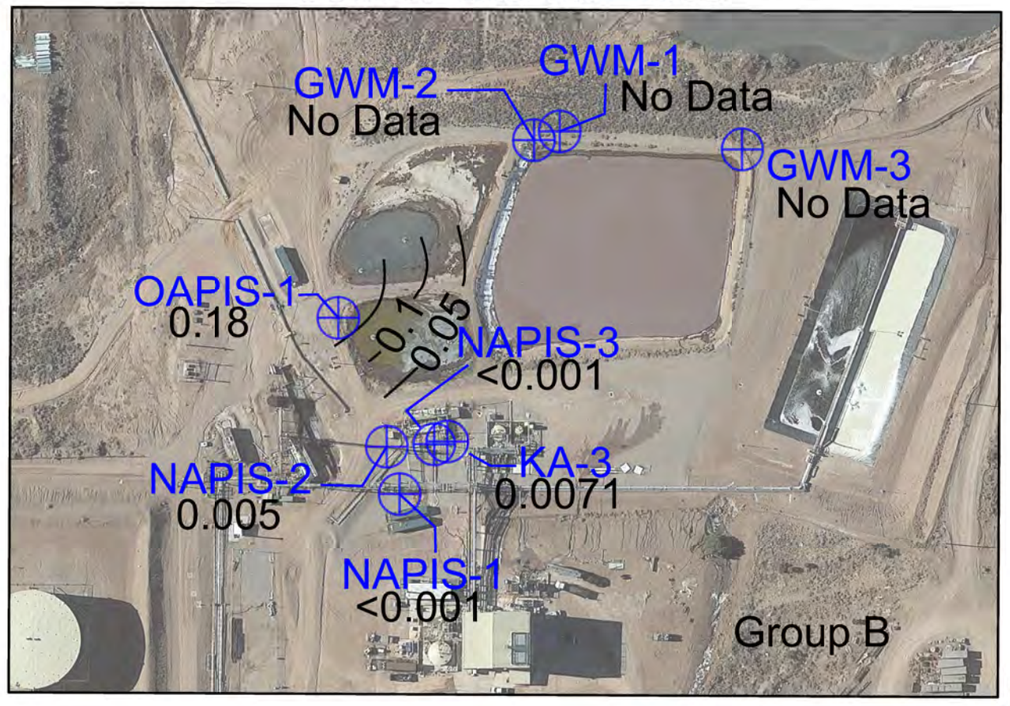
Project #: 06251104

Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

Date: August 8, 2017

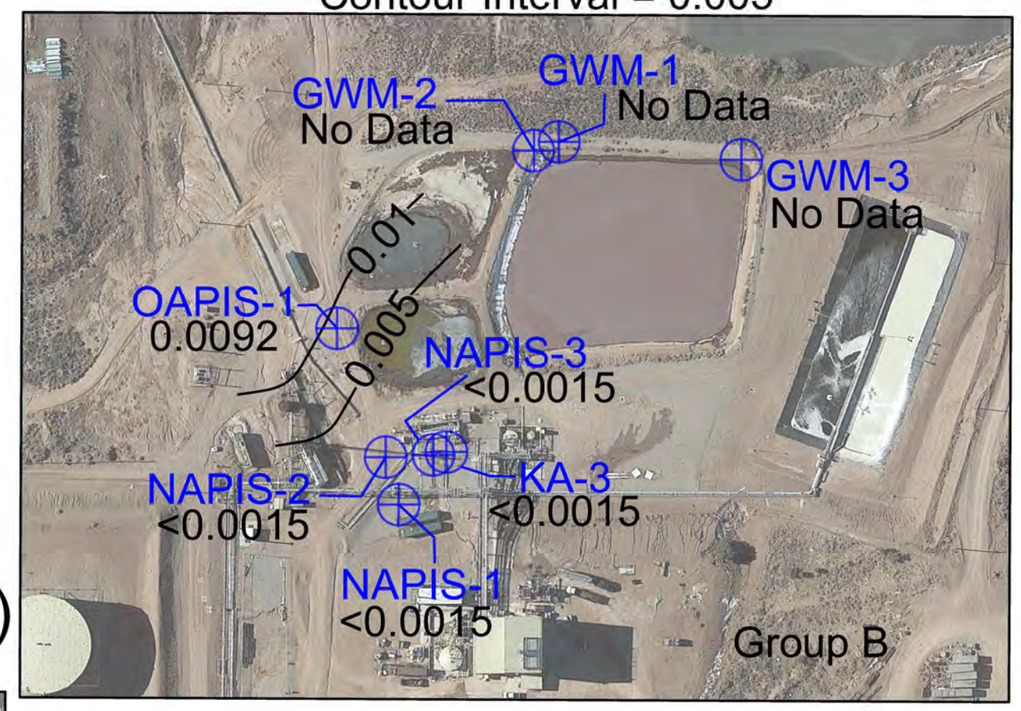
Benzene (September 2016)

Contour Interval = 0.05



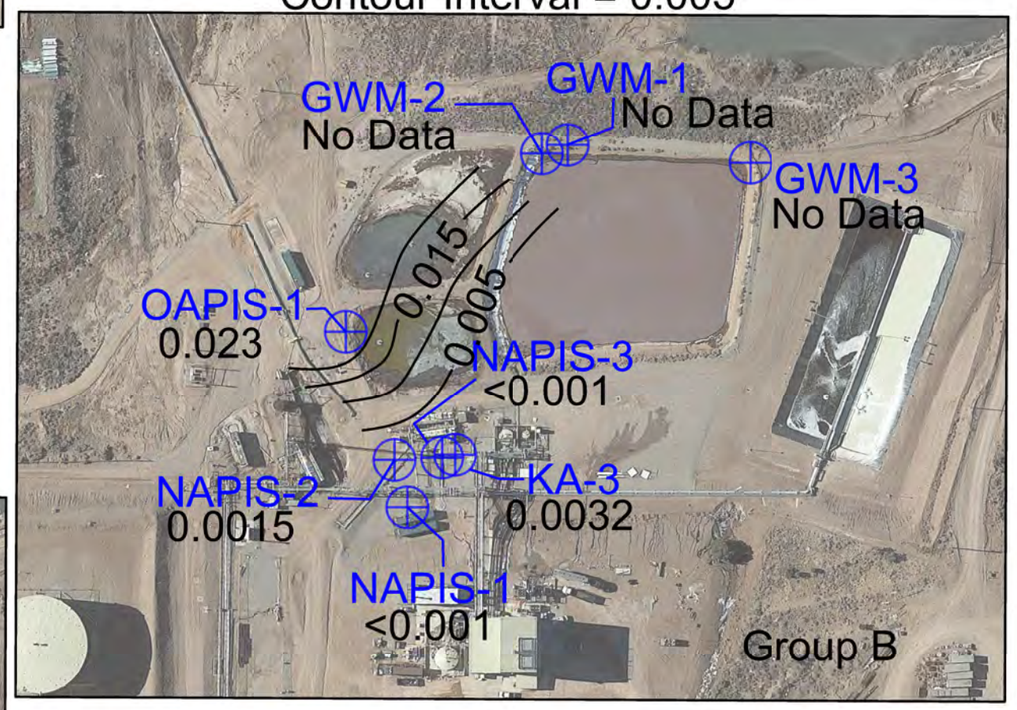
Total Xylenes (September 2016)

Contour Interval = 0.005



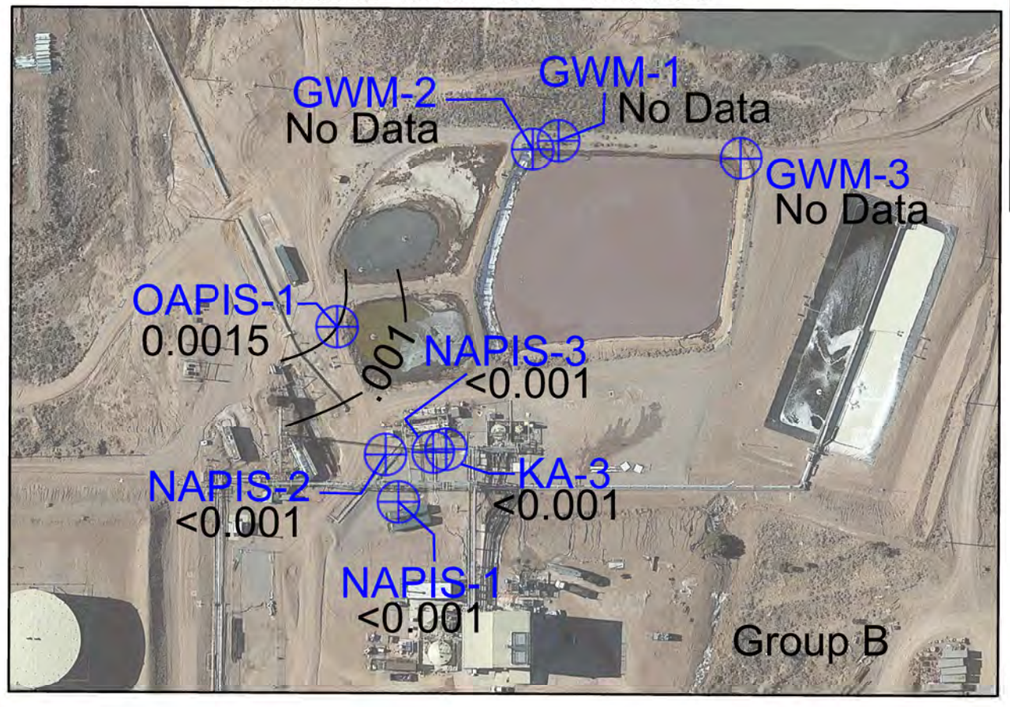
Ethyl Benzene (September 2016)

Contour Interval = 0.005



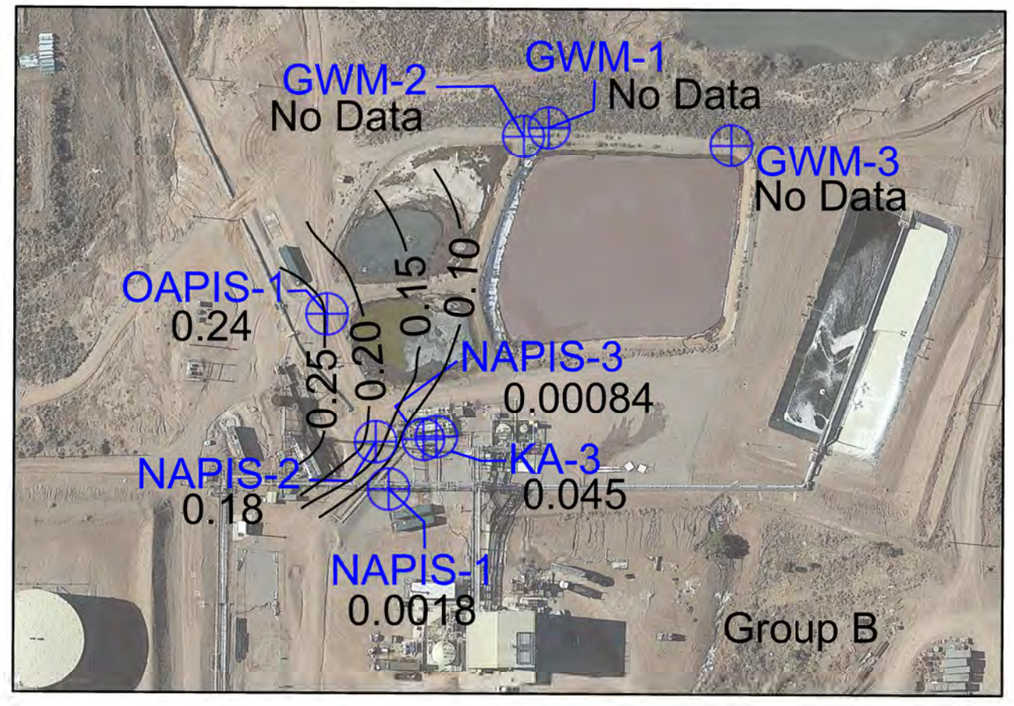
Toluene (September 2016)

Contour Interval = 0.0005



MTBE (September 2016)

Contour Interval = 0.05



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Project #: 06251104

Figure 15

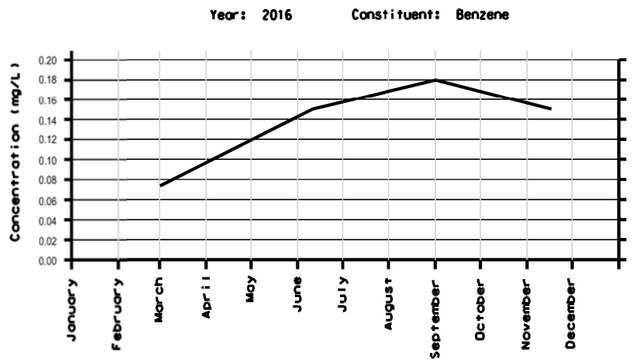
WELL GROUP B CONSTITUENTS

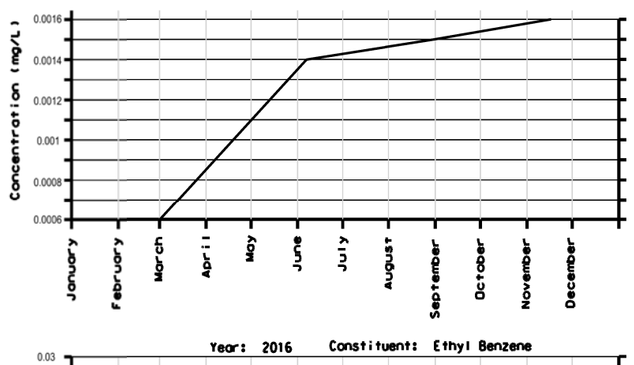
WESTERN REFINING - GALLUP REFINERY

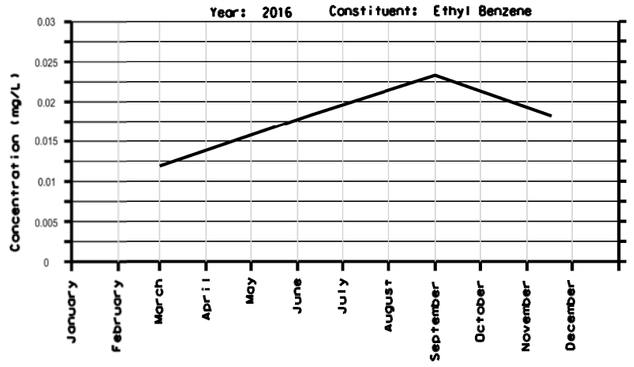
Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

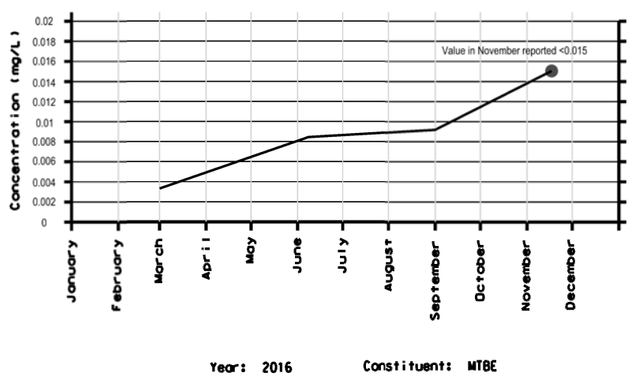
Date: August 22, 2017

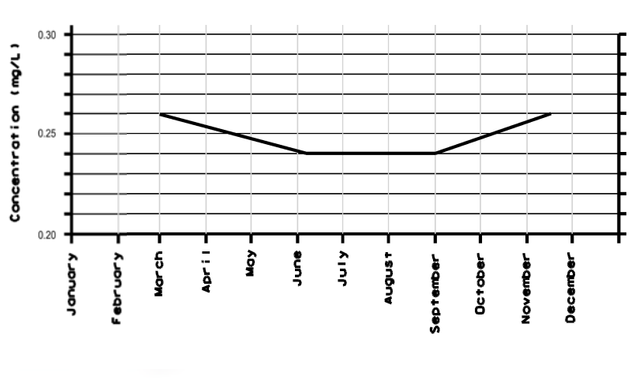
Well ID: OAPIS-1

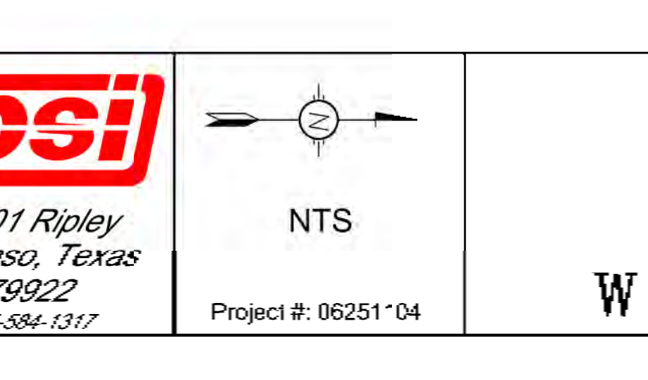




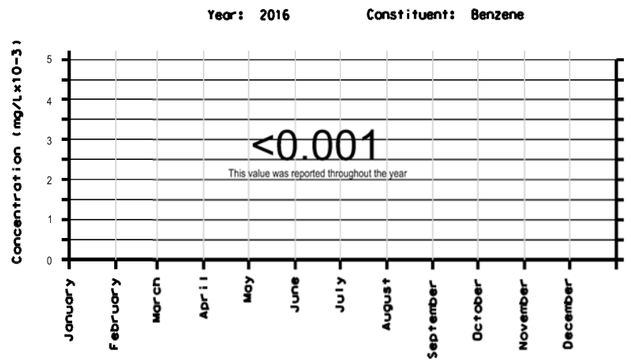


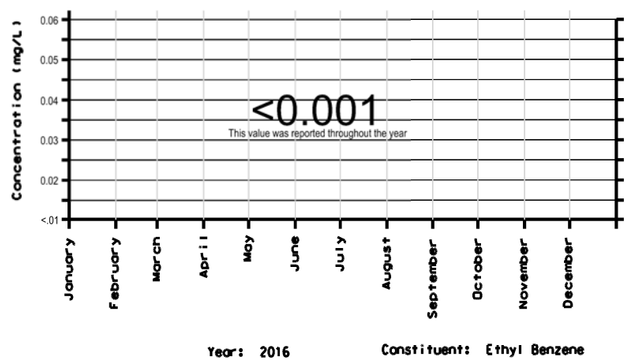


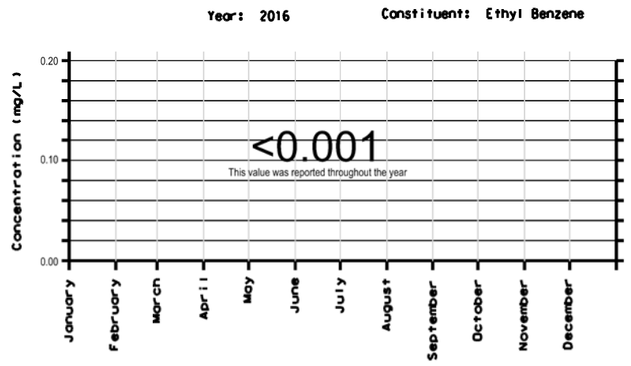


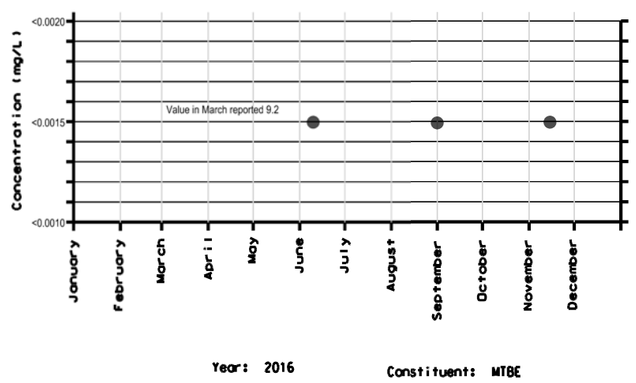


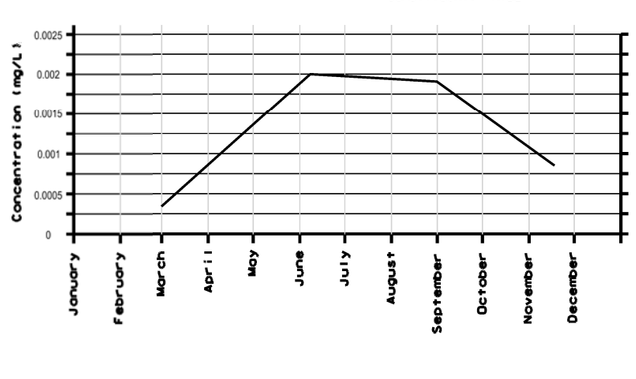
Well ID: NAPIS-1

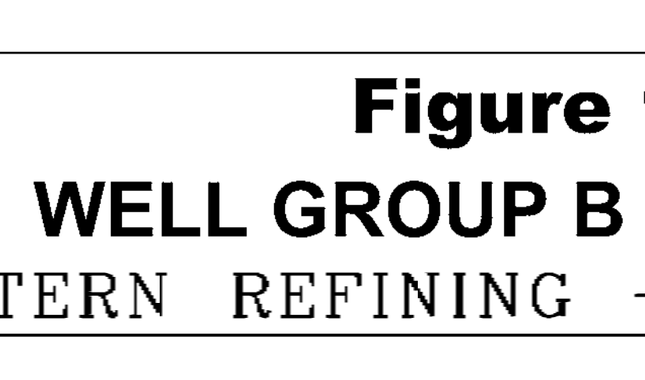












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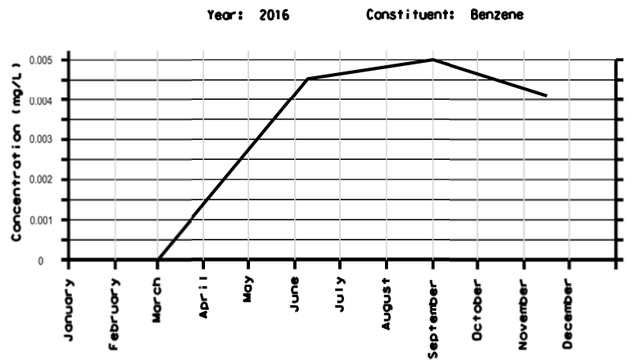

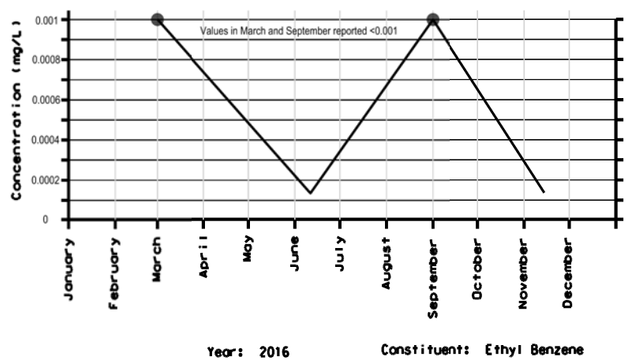

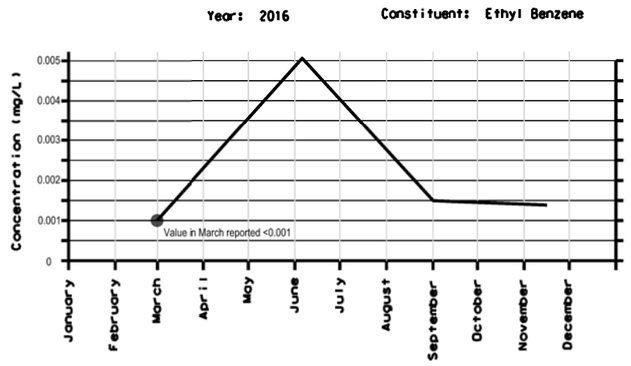

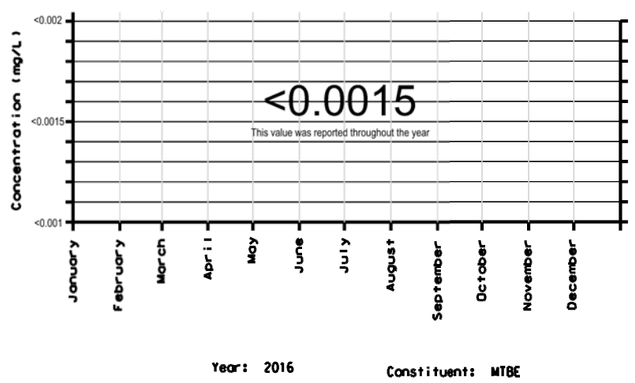

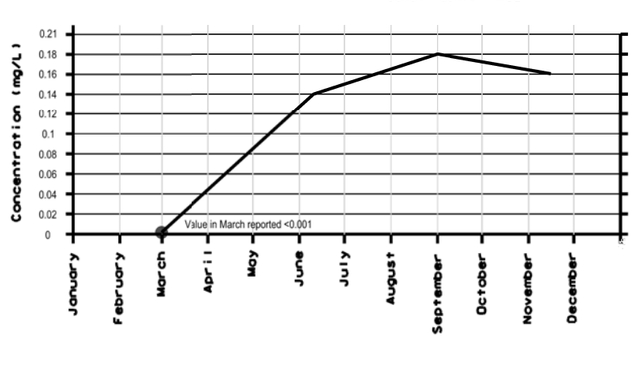

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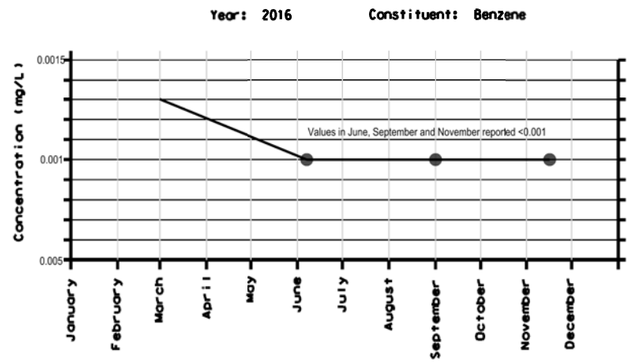

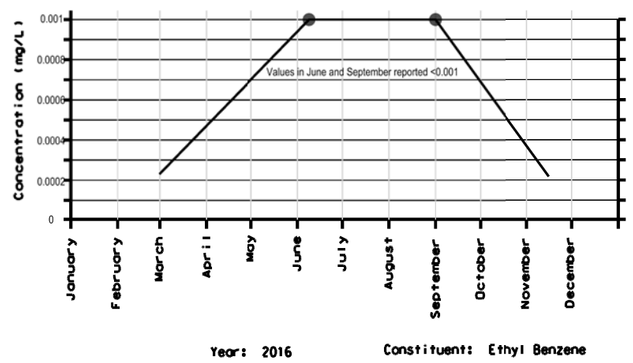

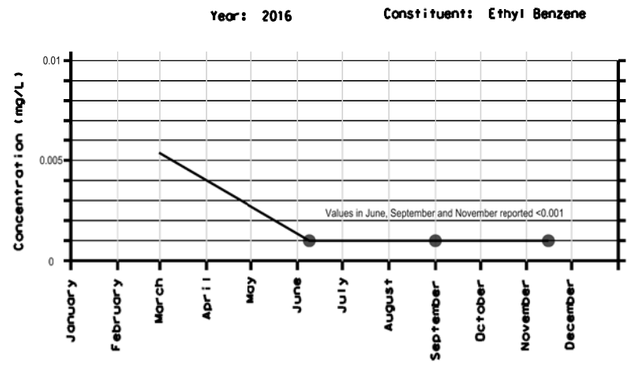

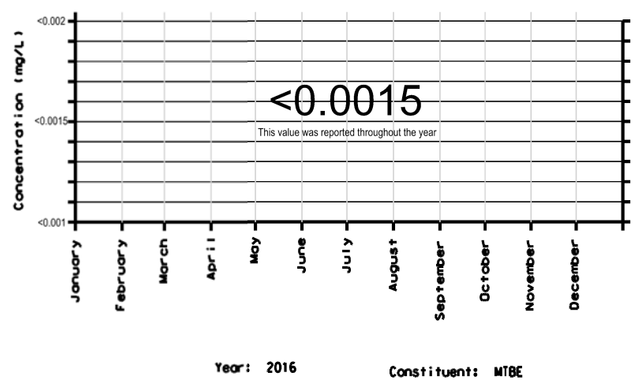

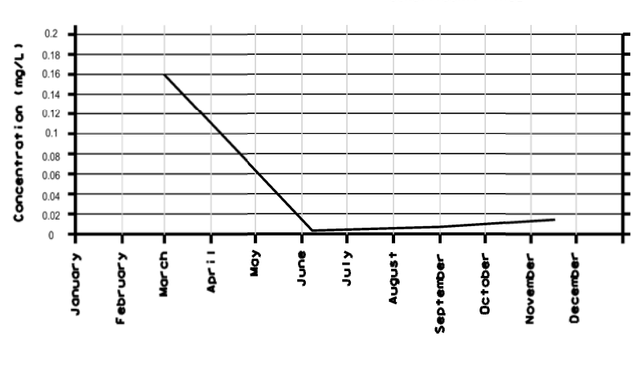

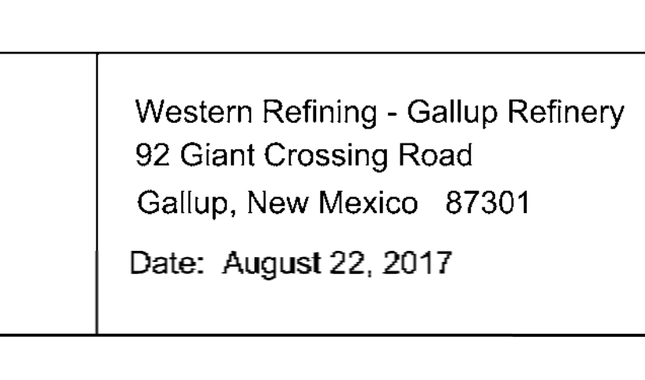

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Figure 15.1

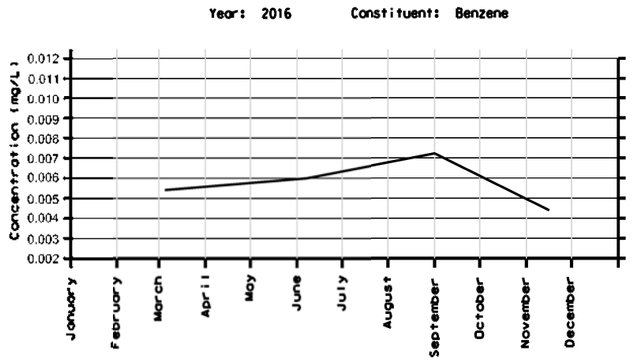
WELL GROUP B CONSTITUENTS

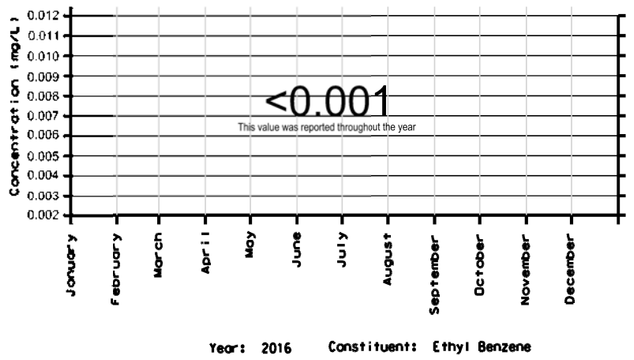
WESTERN REFINING - GALLUP REFINERY

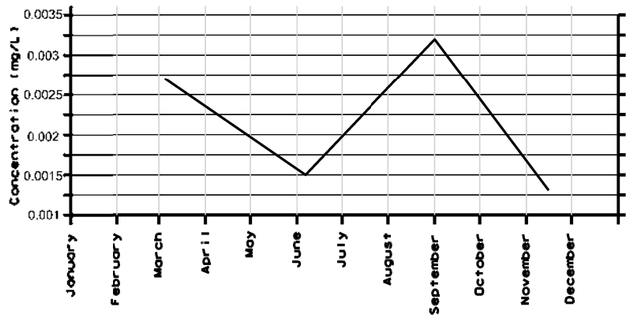
Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

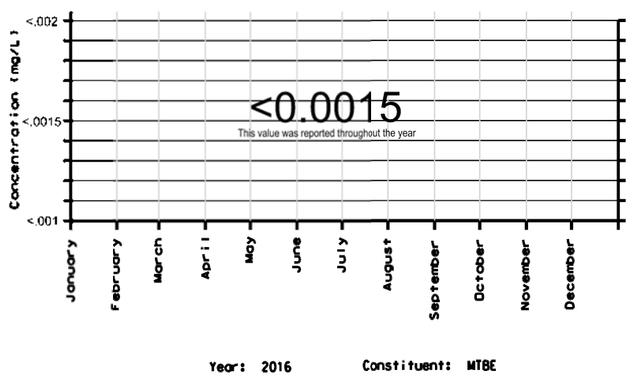
Date: August 22, 2017

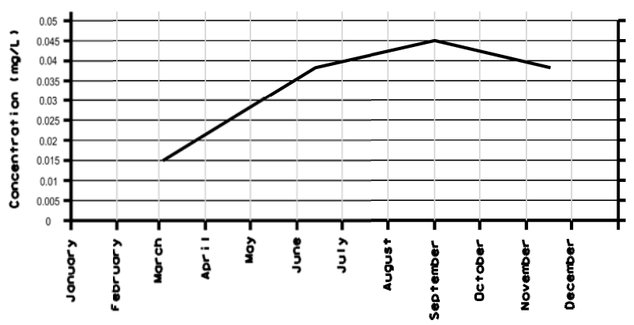
Well ID: KA-3



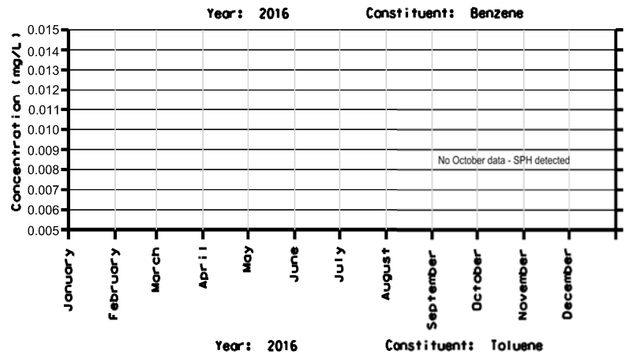


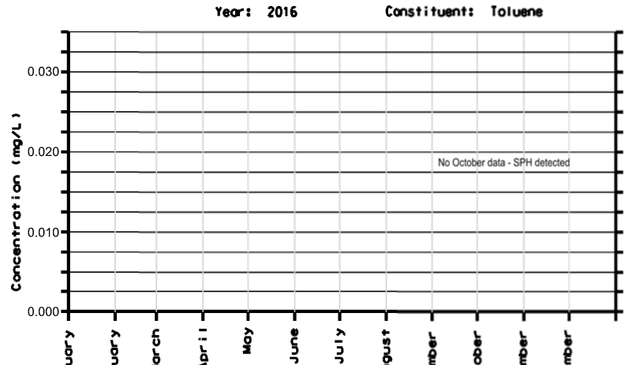


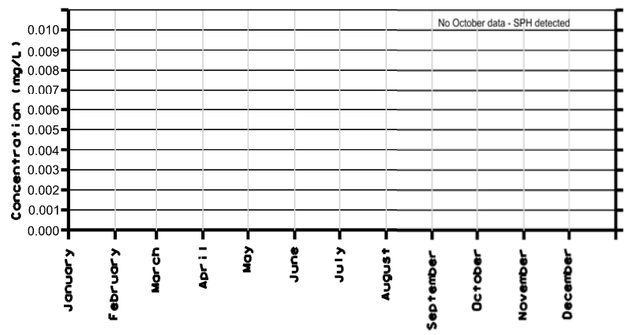


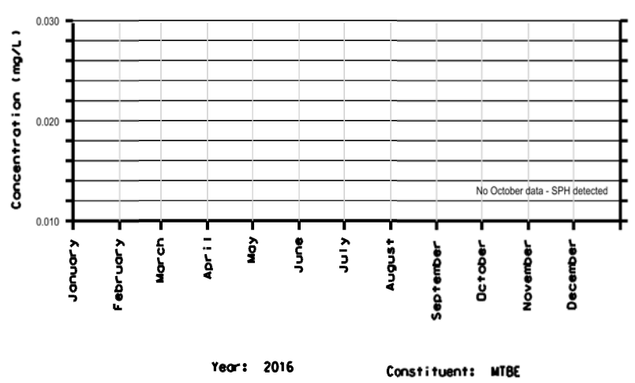


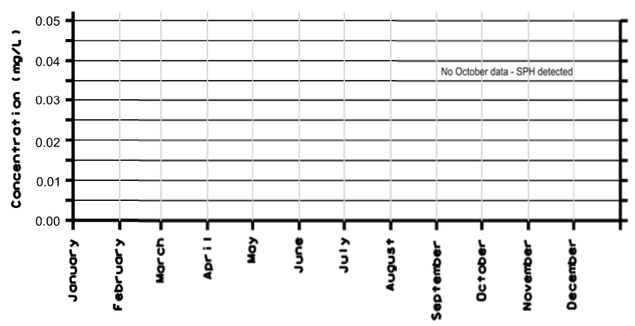
Well ID: GWM-1



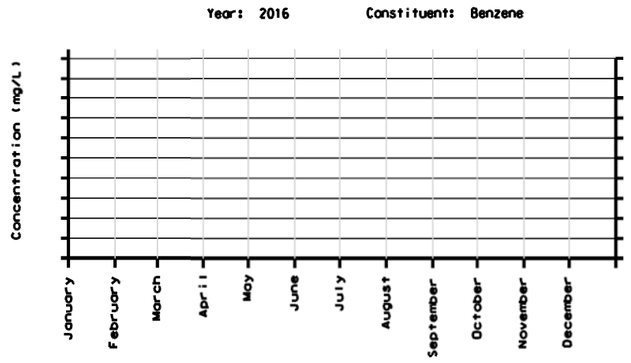


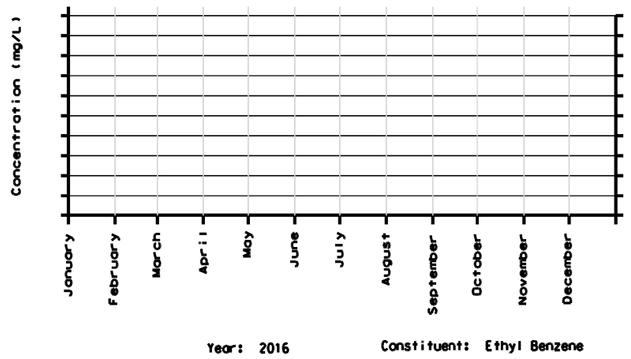


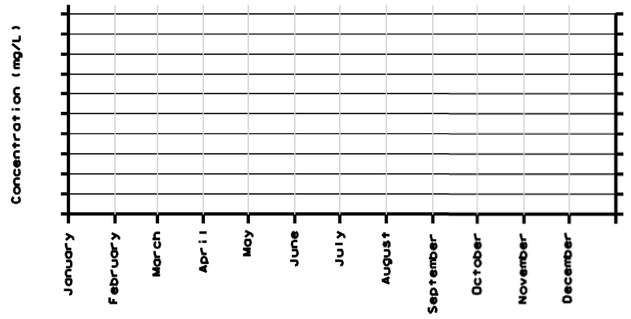


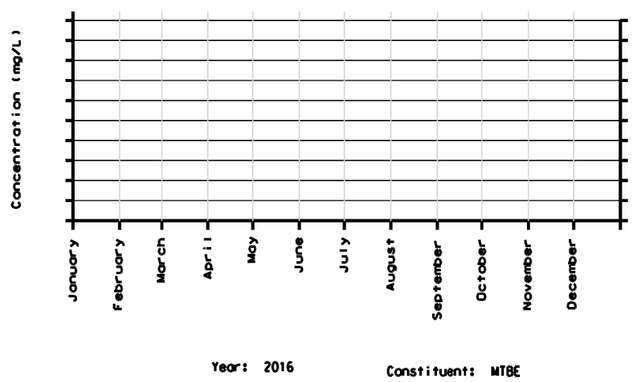


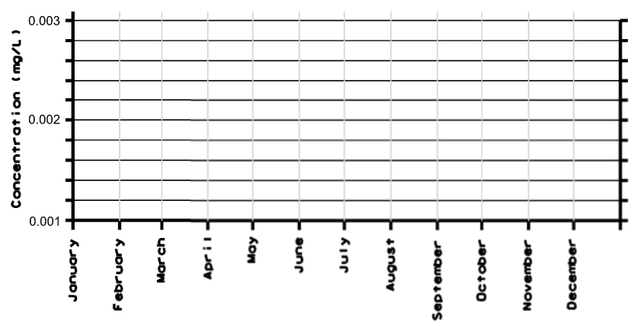
Well ID: GWM-2



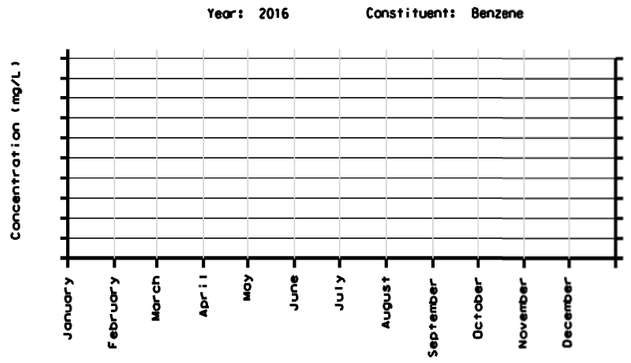


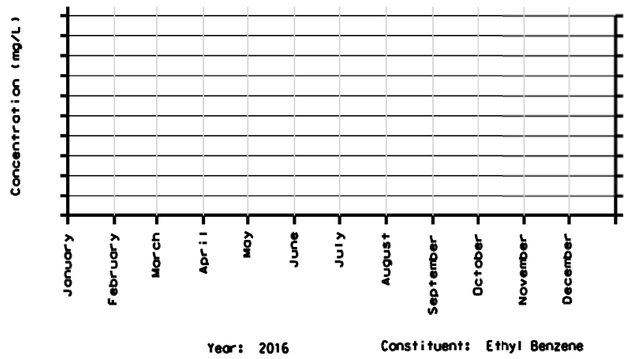


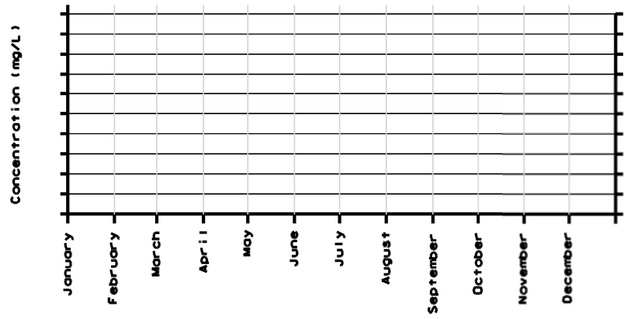


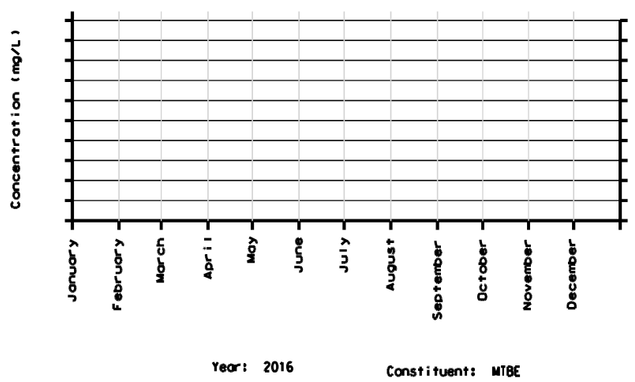


Well ID: GWM-3









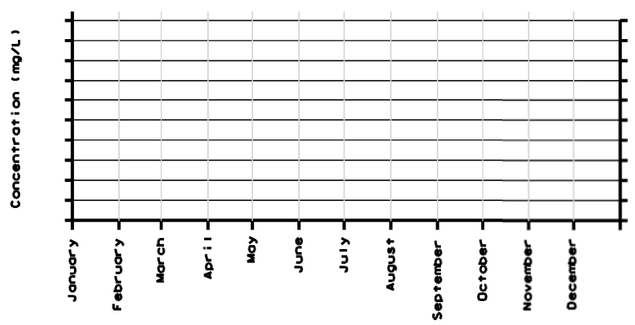


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Figure 15.2

WELL GROUP B CONSTITUENTS

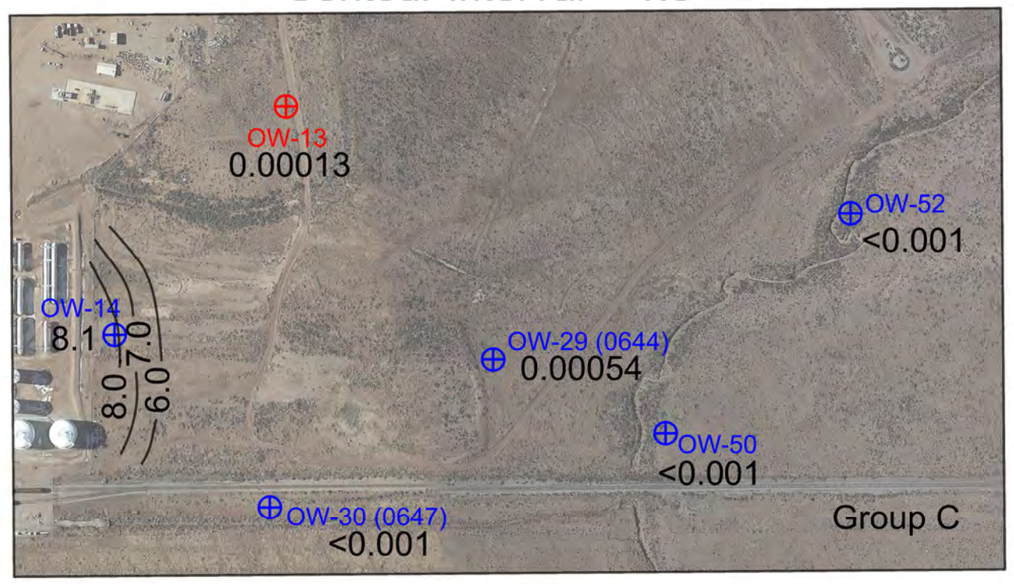
WESTERN REFINING - GALLUP REFINERY

Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

Date: August 22, 2017

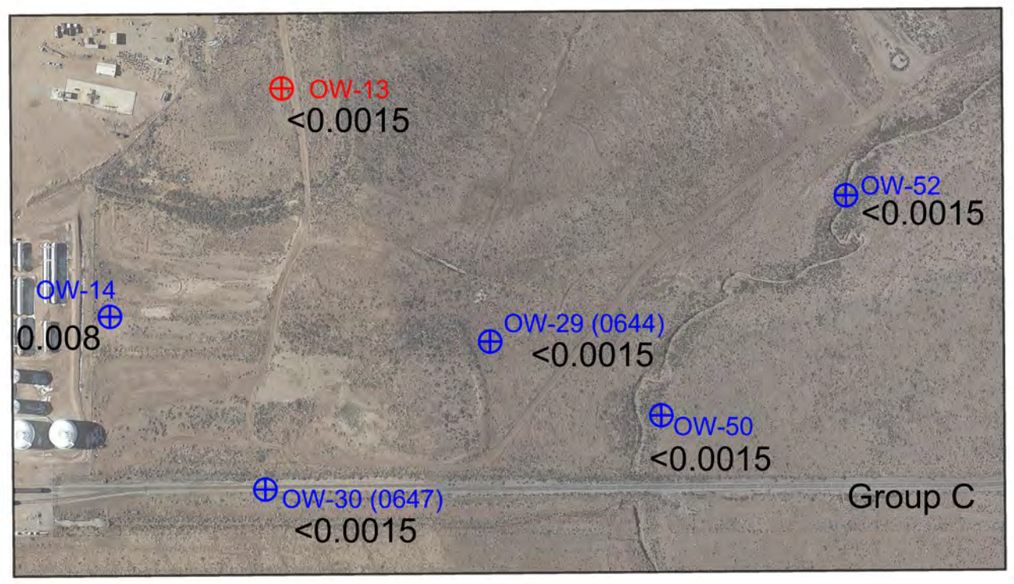
Benzene (September 2016)

Contour Interval = 1.0



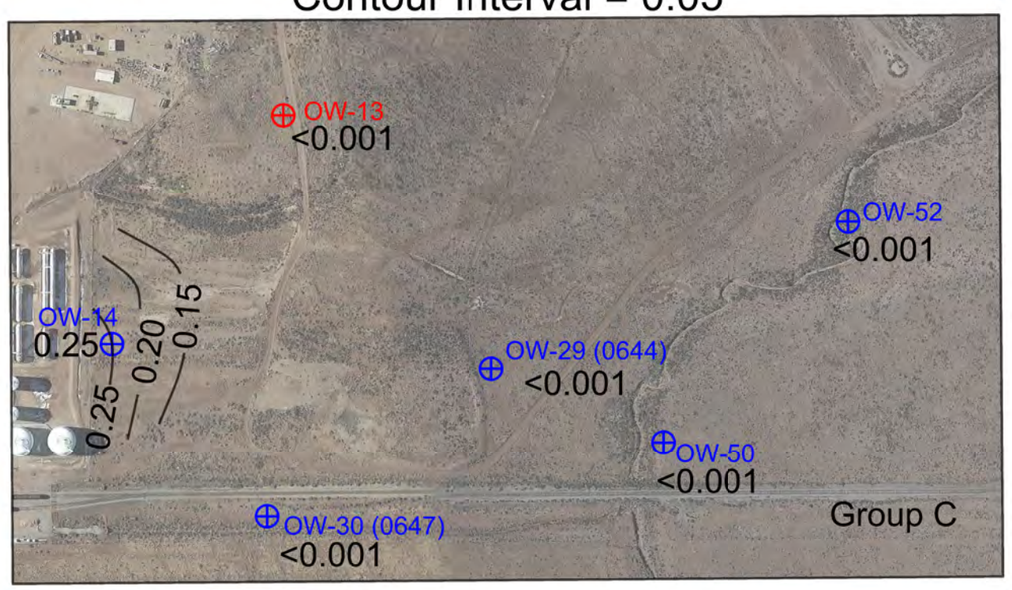
Total Xylenes (September 2016)

Contour Interval = N/A



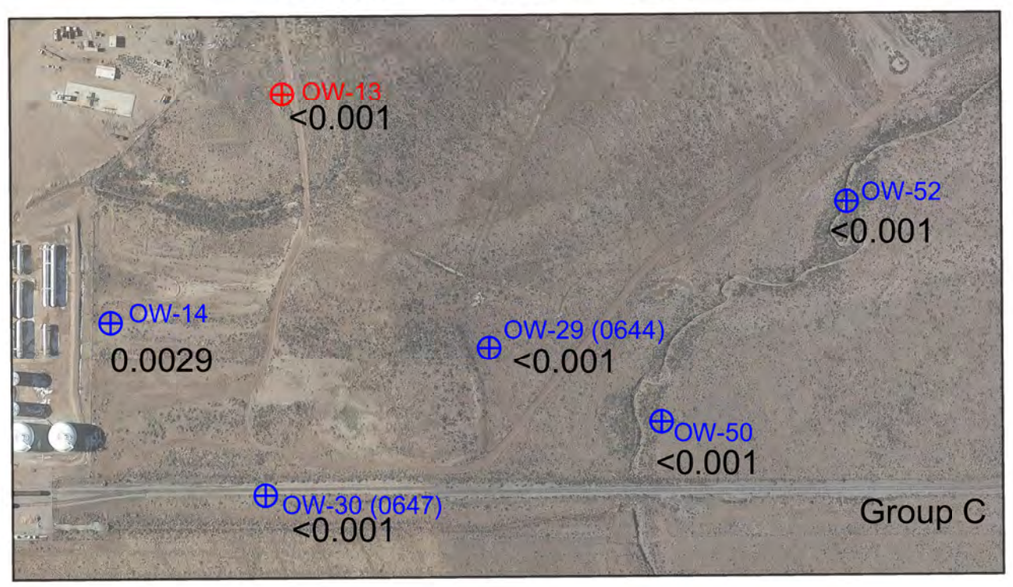
Ethyl Benzene (September 2016)

Contour Interval = 0.05



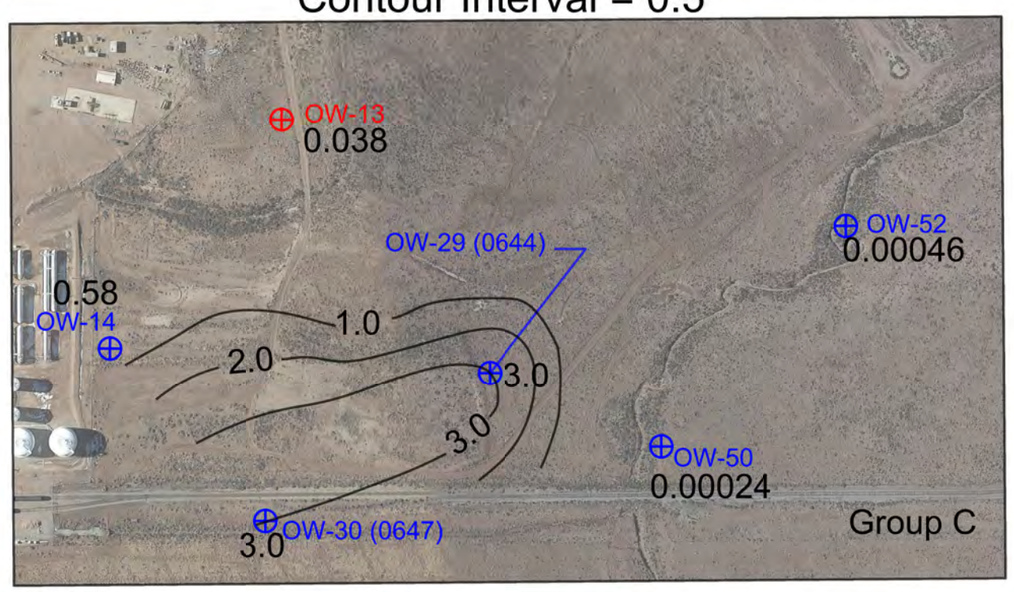
Toluene (September 2016)

Contour Interval = N/A



MTBE (September 2016)

Contour Interval = 0.5



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Project #: 06251104

Figure 16

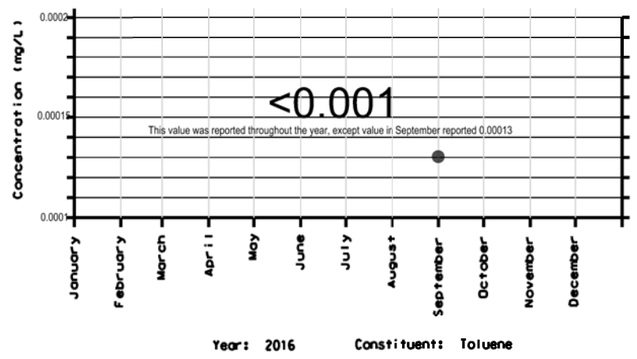
WELL GROUP C CONSTITUENTS

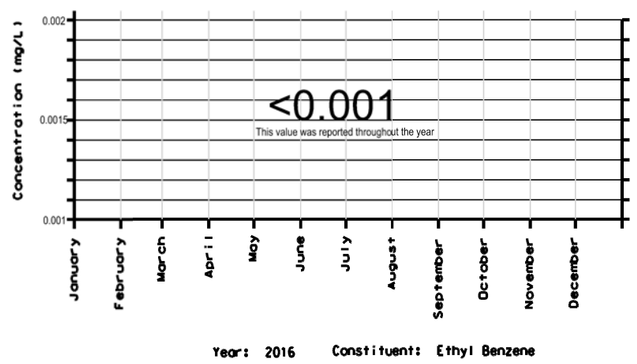
WESTERN REFINING - GALLUP REFINERY

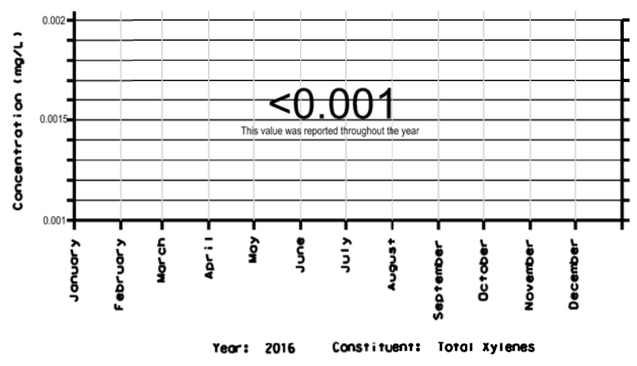
Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

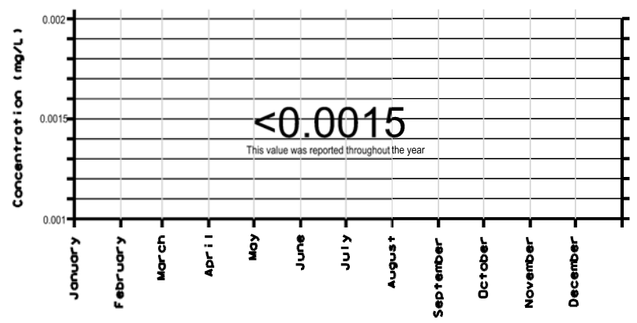
Date: August 22, 2017

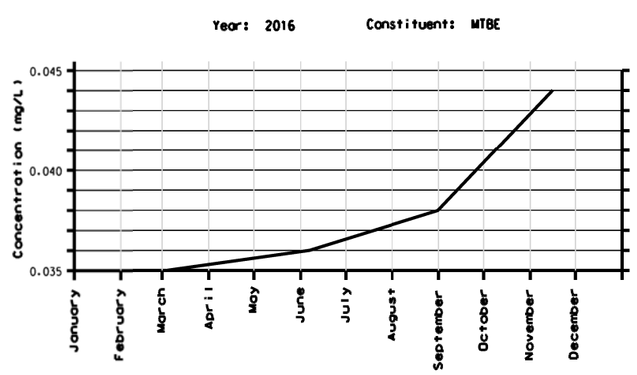
Well ID: OW-13



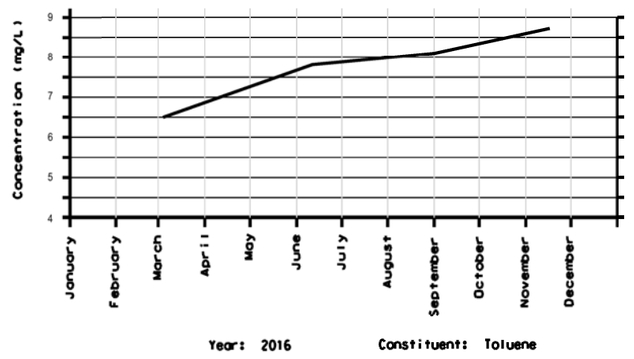


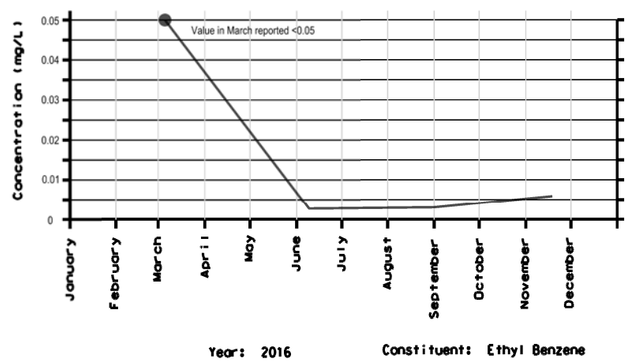


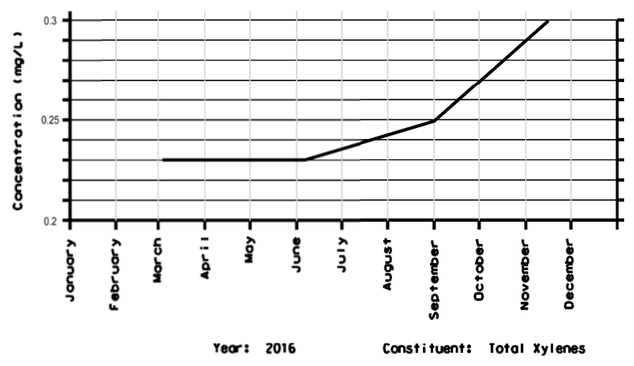


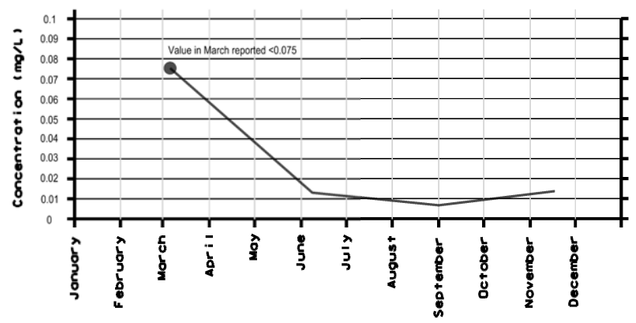


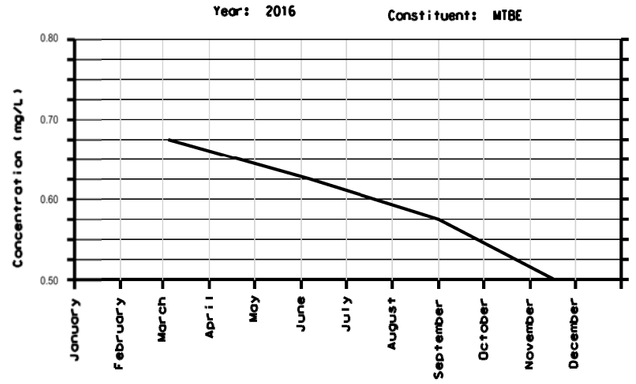
Well ID: OW-14



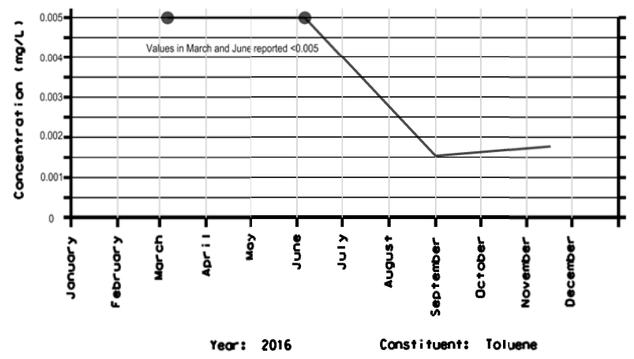


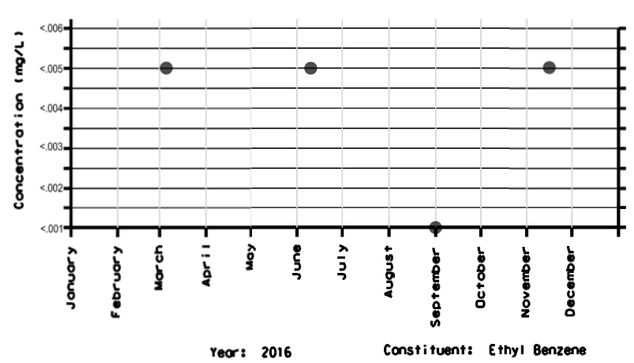


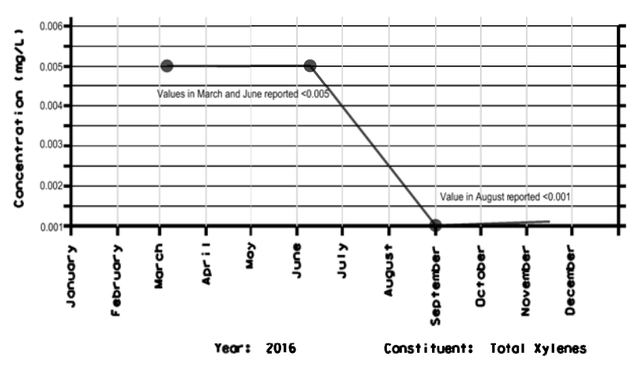


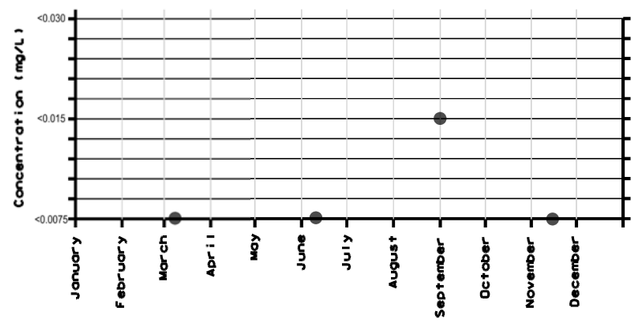


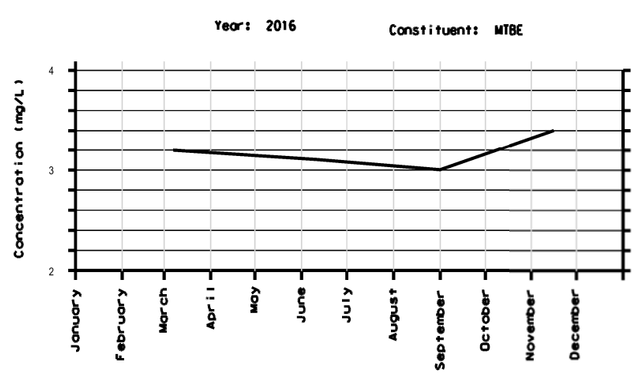
Well ID: OW-29











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Project #: 06251104

Figure 16.1

WELL GROUP C CONSTITUENTS

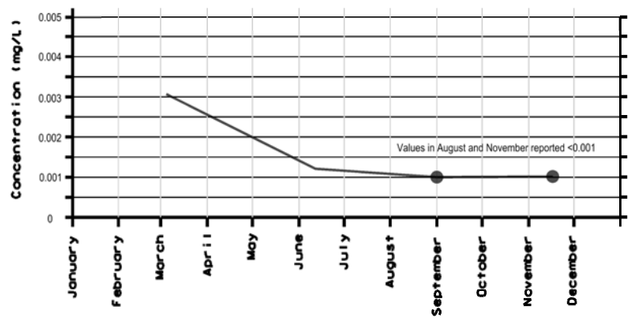
WESTERN REFINING - GALLUP REFINERY

Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

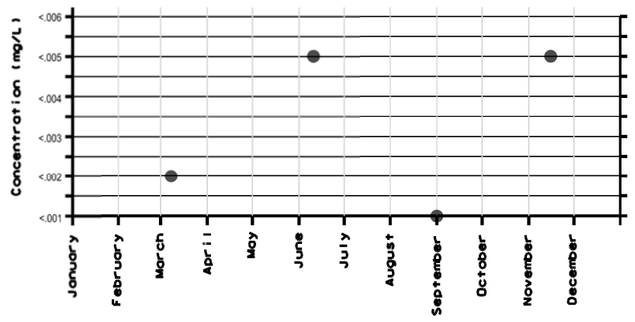
Date: August 22, 2017

Well ID: OW-30

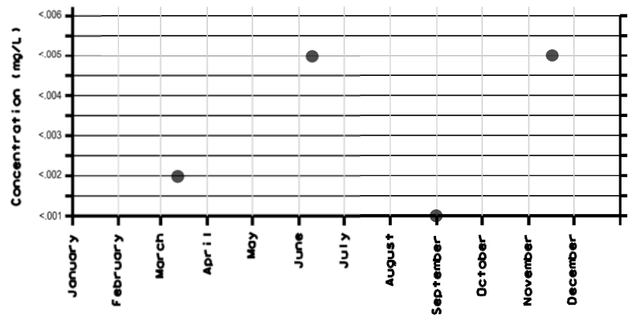
Year: 2016 Constituent: Benzene



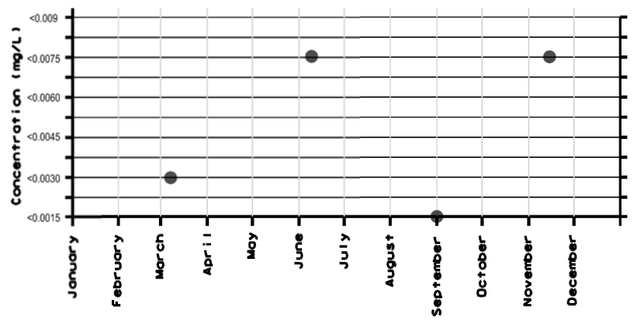
Year: 2016 Constituent: Toluene



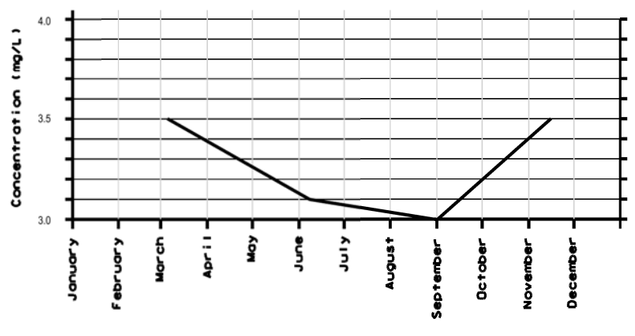
Year: 2016 Constituent: Ethyl Benzene



Year: 2016 Constituent: Total Xylenes

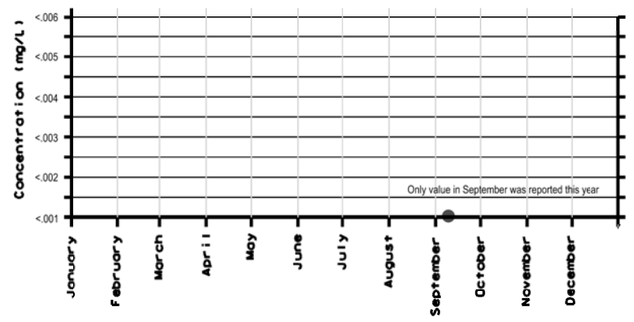


Year: 2016 Constituent: MTBE

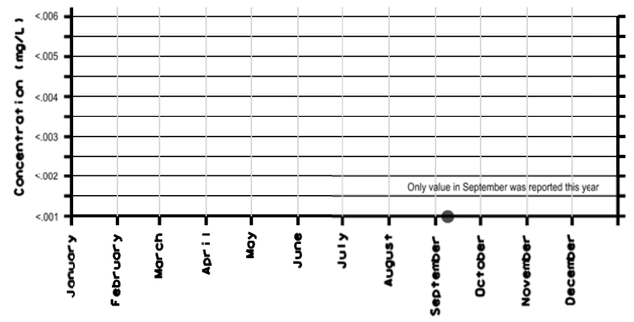


Well ID: OW-50

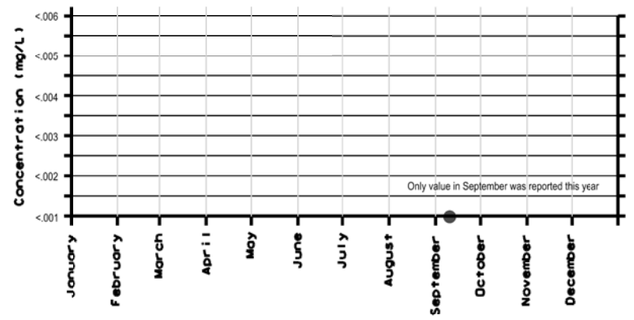
Year: 2016 Constituent: Benzene



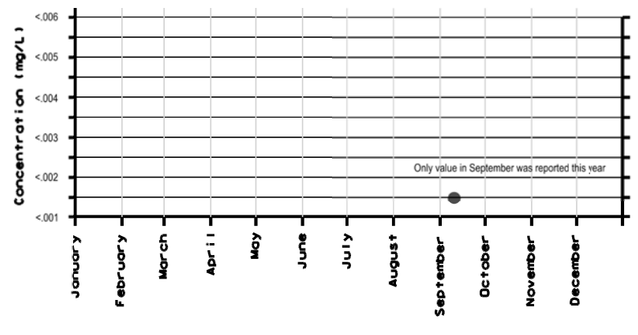
Year: 2016 Constituent: Toluene



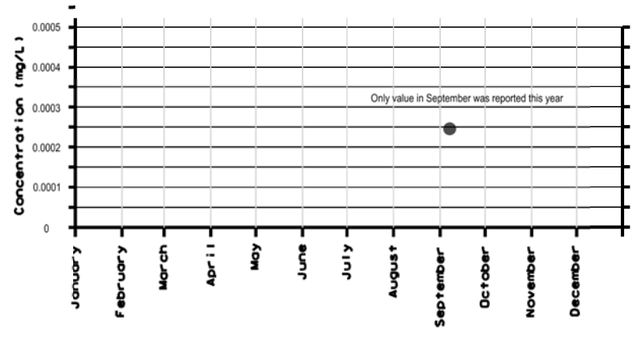
Year: 2016 Constituent: Ethyl Benzene



Year: 2016 Constituent: Total Xylenes

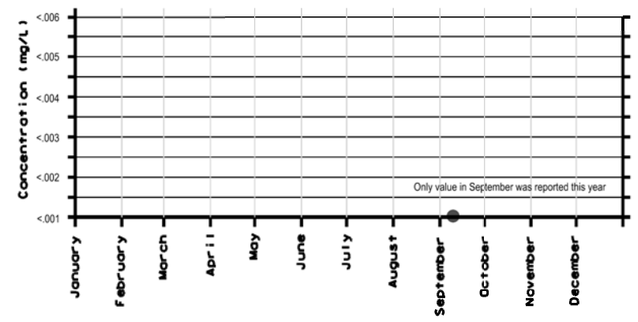


Year: 2016 Constituent: MTBE

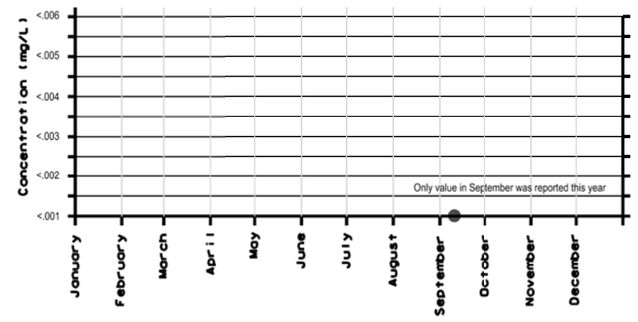


Well ID: OW-52

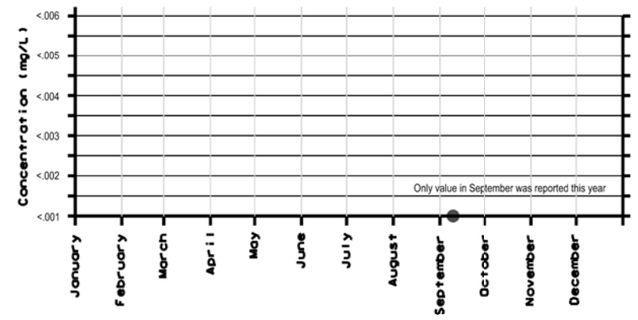
Year: 2016 Constituent: Benzene



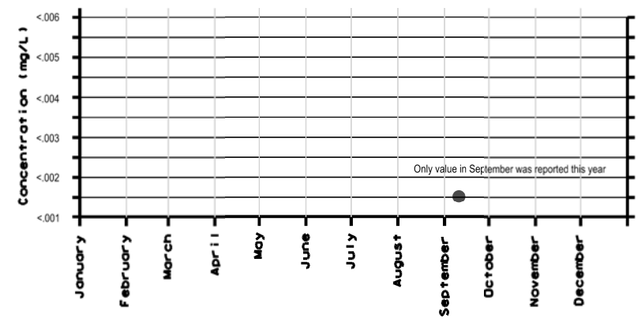
Year: 2016 Constituent: Toluene



Year: 2016 Constituent: Ethyl Benzene



Year: 2016 Constituent: Total Xylenes



Year: 2016 Constituent: MTBE

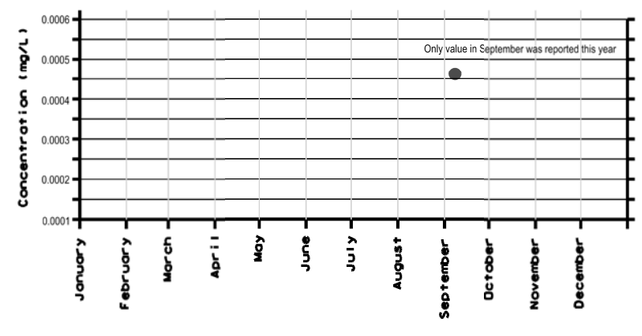


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Figure 16.2

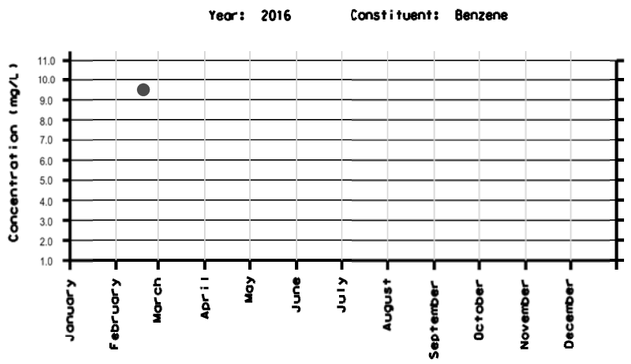
WELL GROUP C CONSTITUENTS

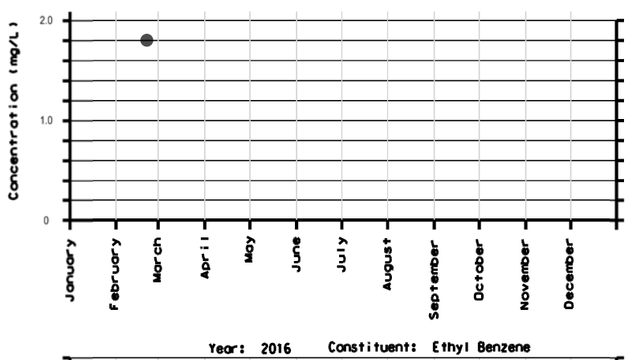
WESTERN REFINING - GALLUP REFINERY

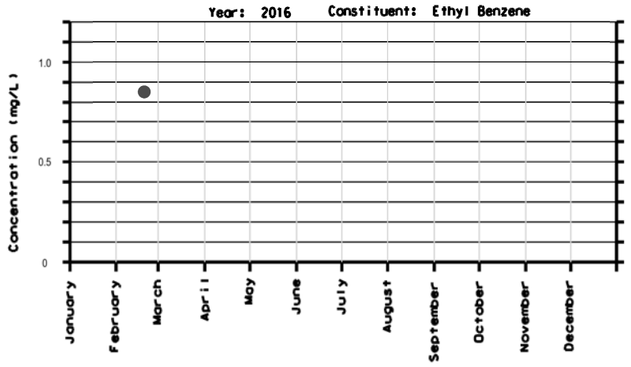
Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

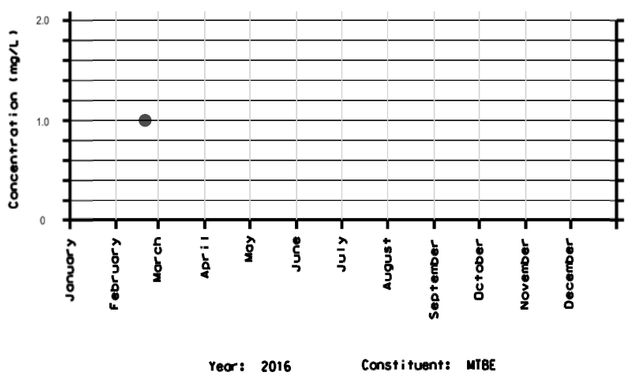
Date: August 22, 2017

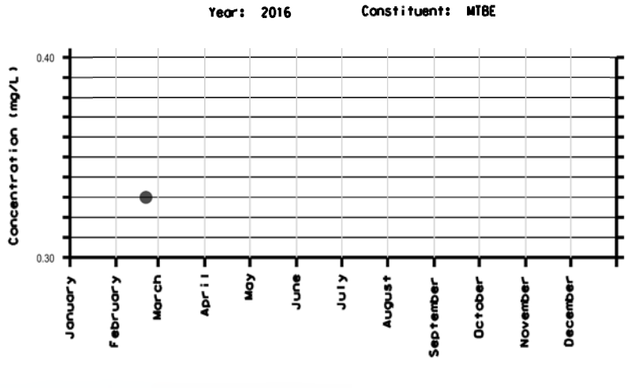
Well ID: MKTF-1



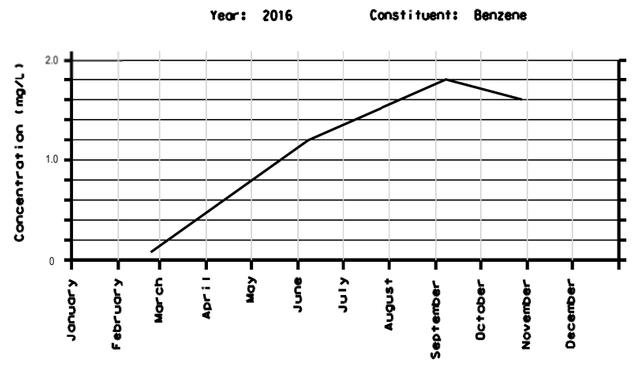


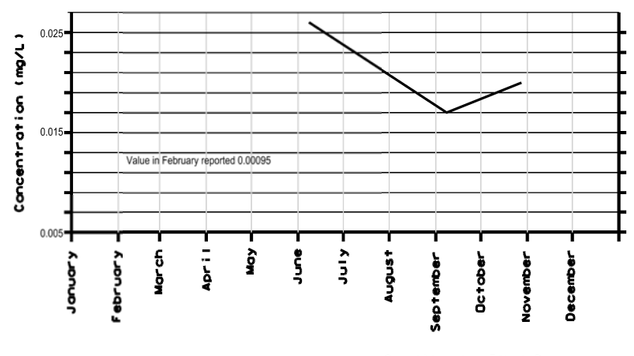


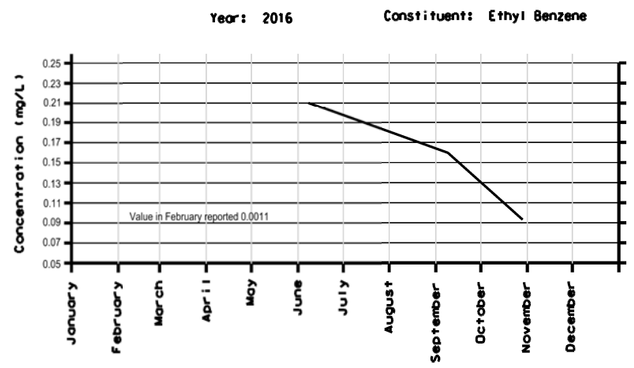


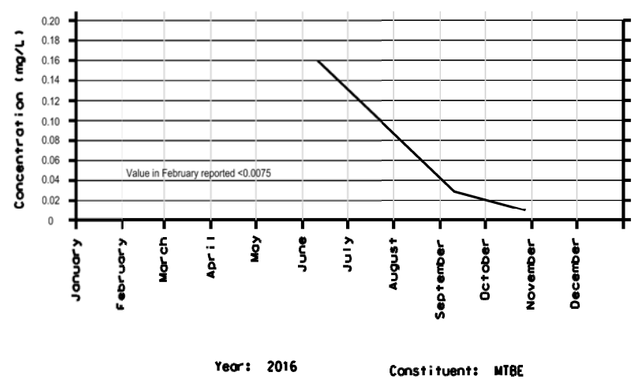


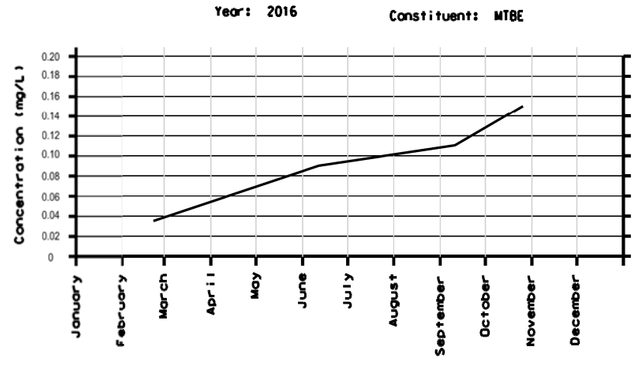
Well ID: MKTF-2



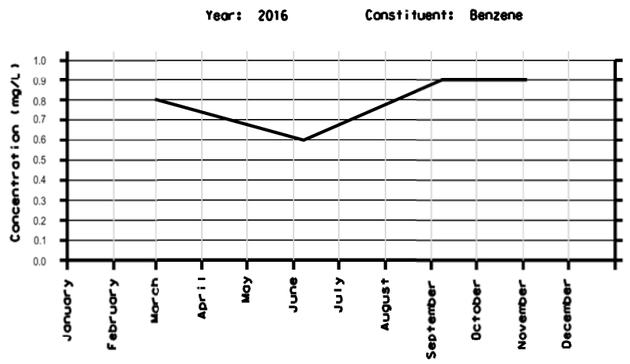


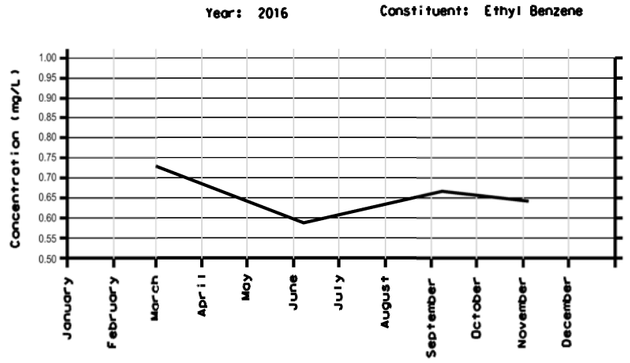


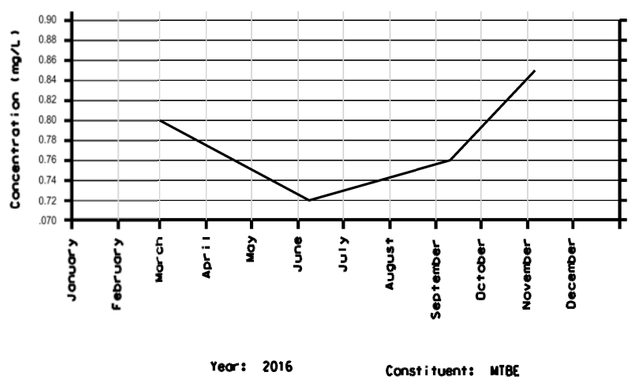


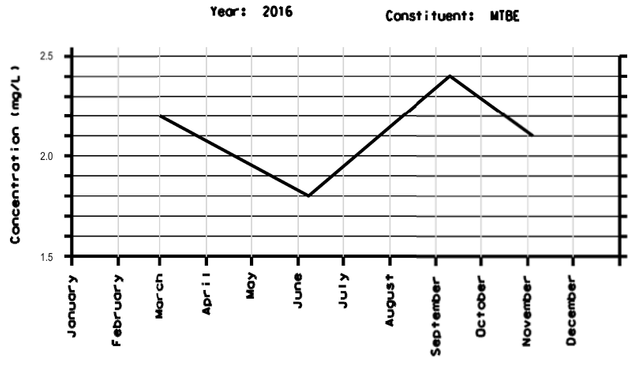


Well ID: MKTF-4









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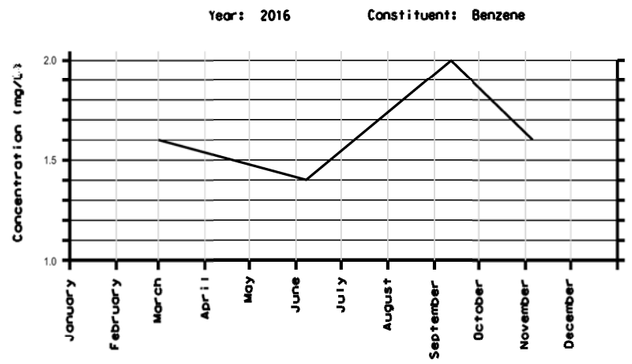

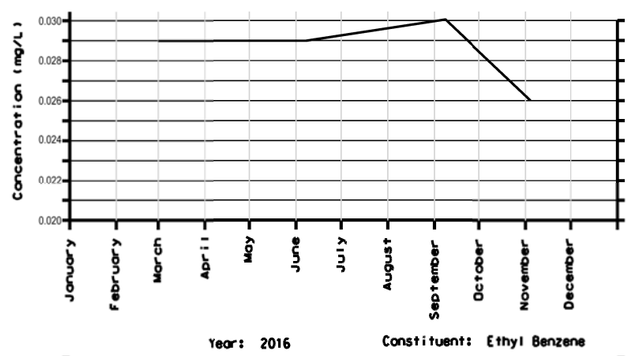

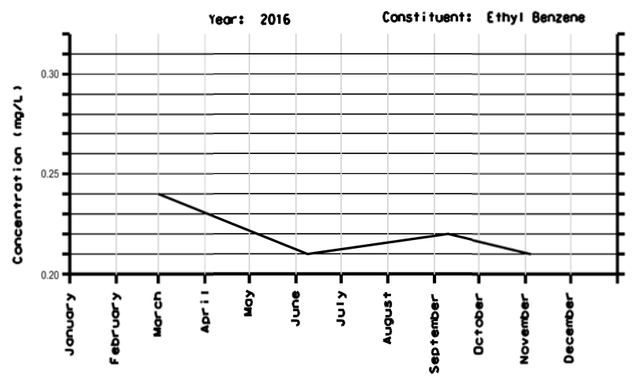

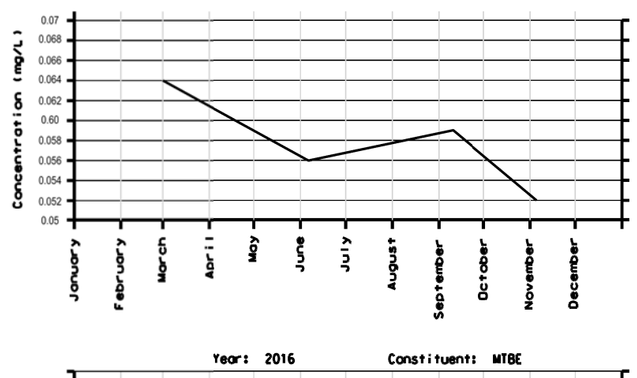

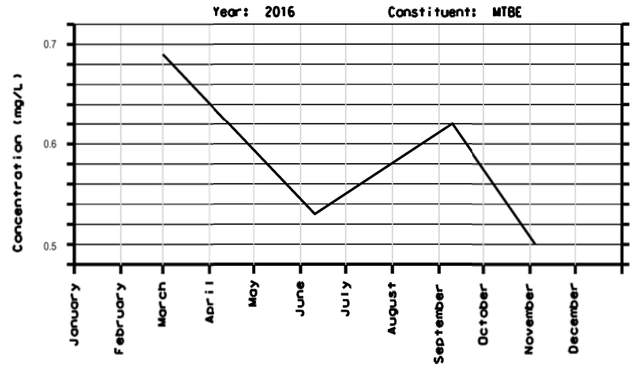

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Project #: 06251318

Figure 17.1

WELL GROUP E CONSTITUENTS

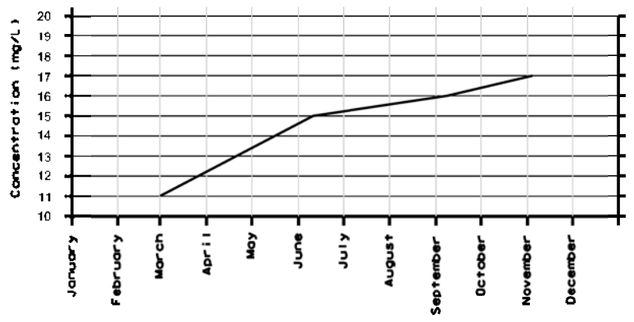
WESTERN REFINING - GALLUP REFINERY

Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

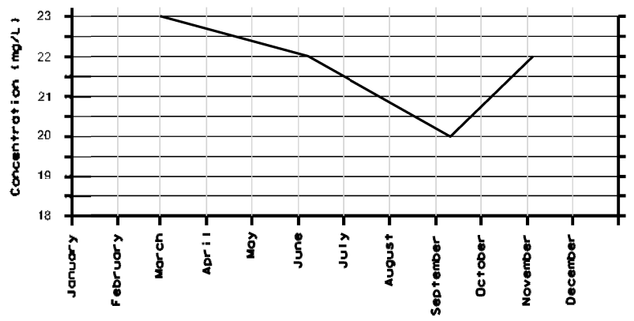
Date: May 15, 2017

Well ID: MKTF-10

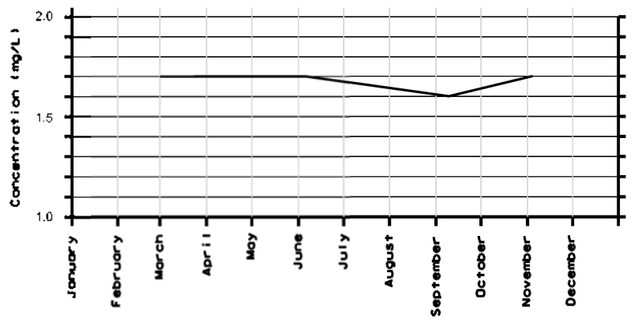
Year: 2016 Constituent: Benzene



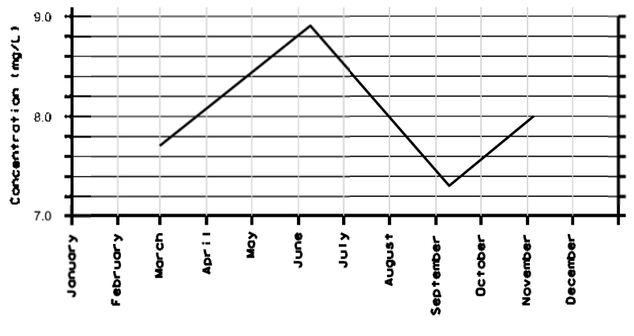
Year: 2016 Constituent: Toluene



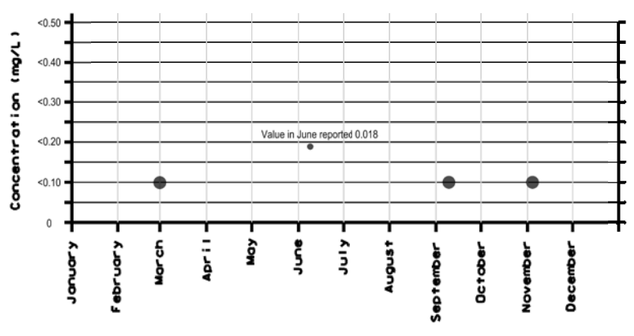
Year: 2016 Constituent: Ethyl Benzene



Year: 2016 Constituent: Total Xylenes

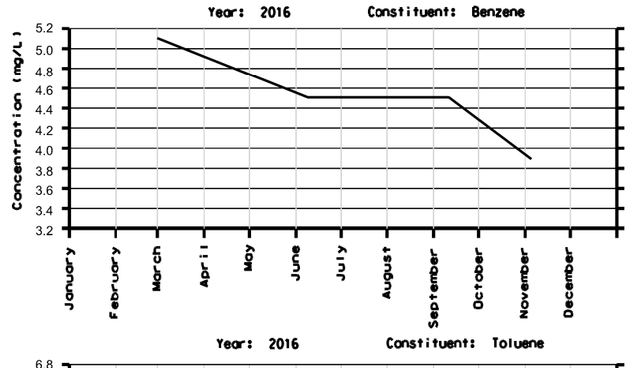


Year: 2016 Constituent: MTBE

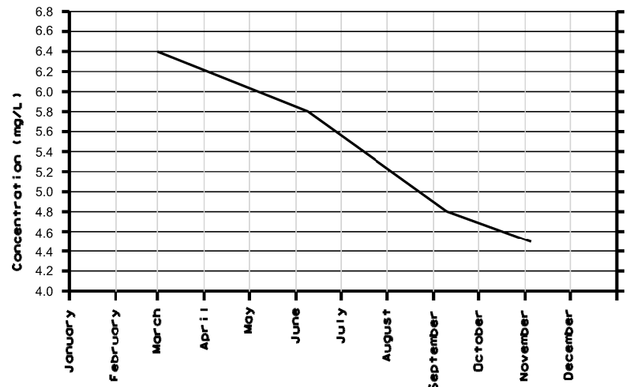


Well ID: MKTF-11

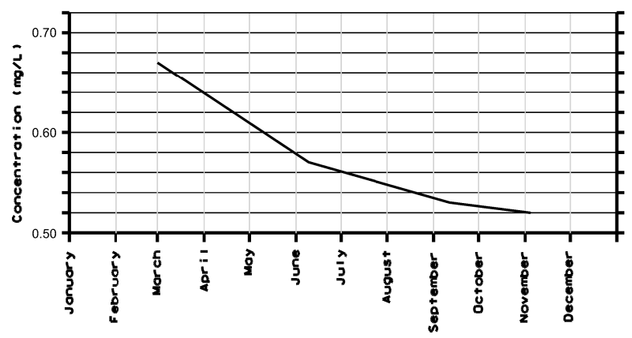
Year: 2016 Constituent: Benzene



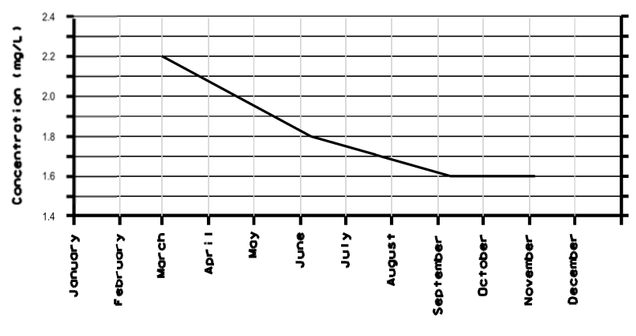
Year: 2016 Constituent: Toluene



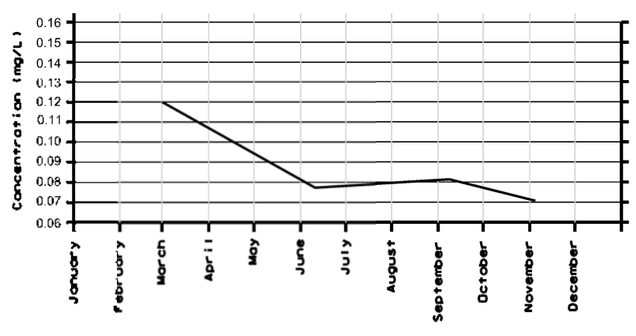
Year: 2016 Constituent: Ethyl Benzene



Year: 2016 Constituent: Total Xylenes

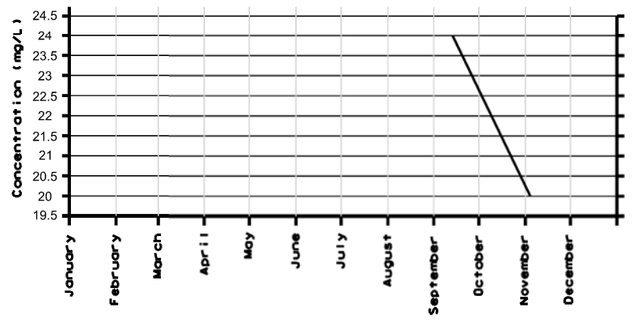


Year: 2016 Constituent: MTBE

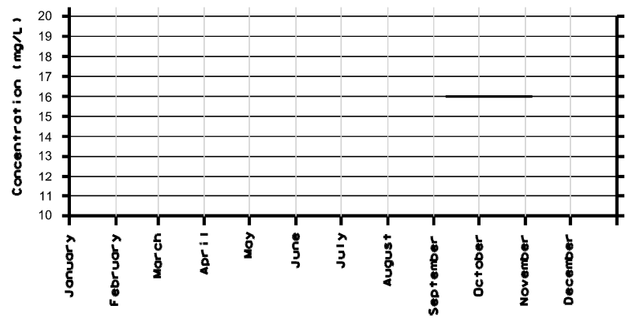


Well ID: MKTF-15

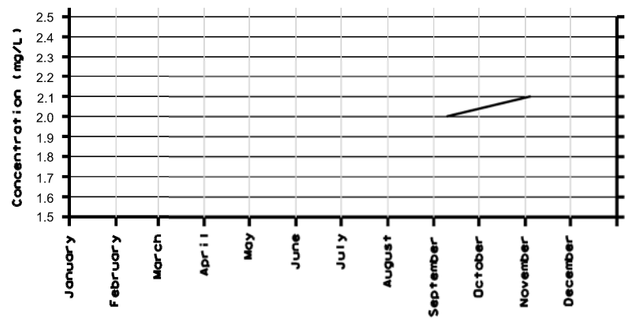
Year: 2016 Constituent: Benzene



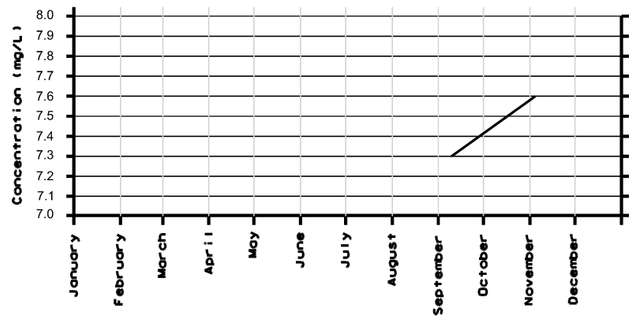
Year: 2016 Constituent: Toluene



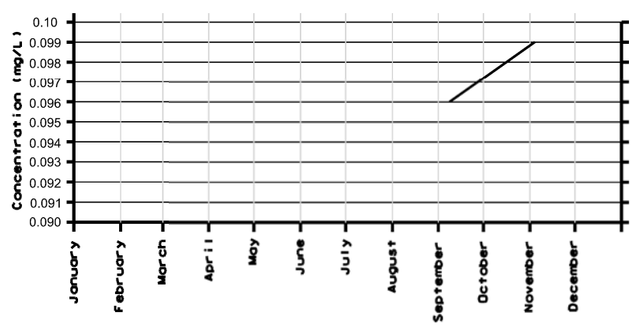
Year: 2016 Constituent: Ethyl Benzene



Year: 2016 Constituent: Total Xylenes

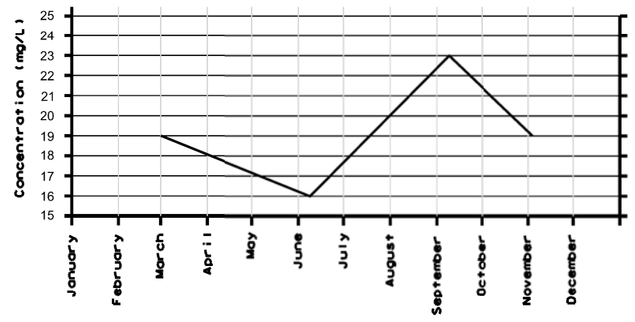


Year: 2016 Constituent: MTBE

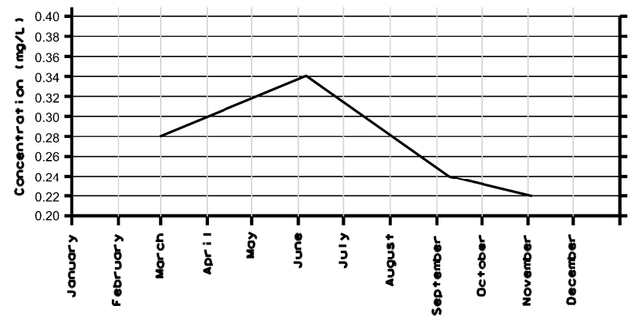


Well ID: MKTF-16

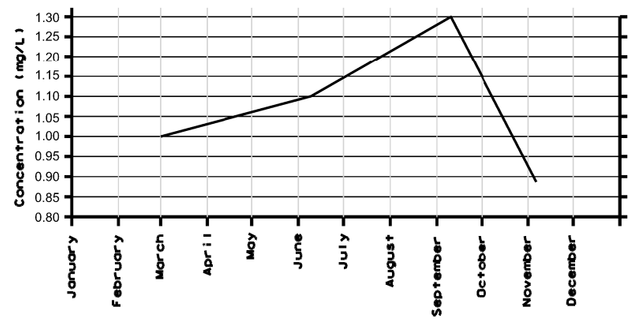
Year: 2016 Constituent: Benzene



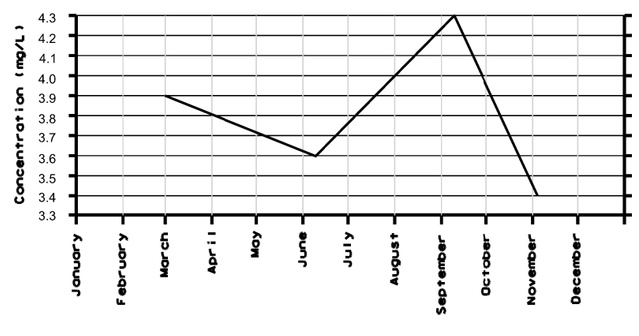
Year: 2016 Constituent: Toluene



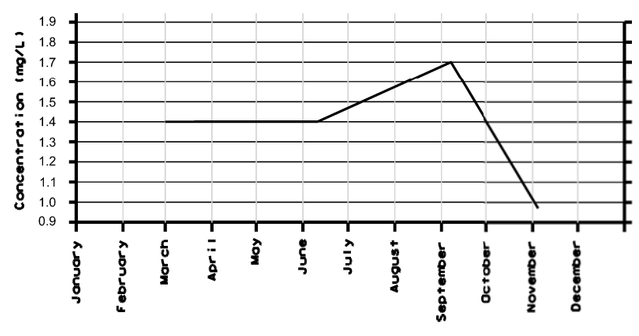
Year: 2016 Constituent: Ethyl Benzene



Year: 2016 Constituent: Total Xylenes



Year: 2016 Constituent: MTBE



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Project #: 06251318

Figure 17.2

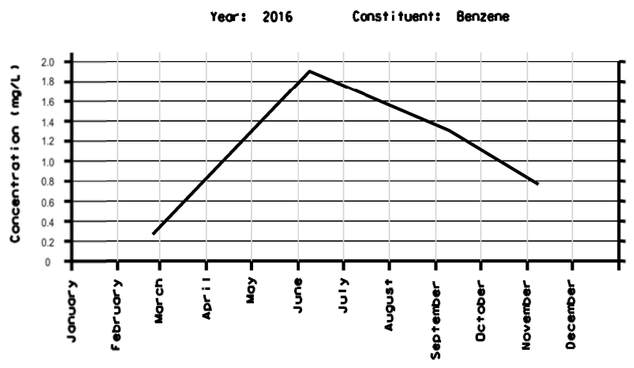
WELL GROUP E CONSTITUENTS

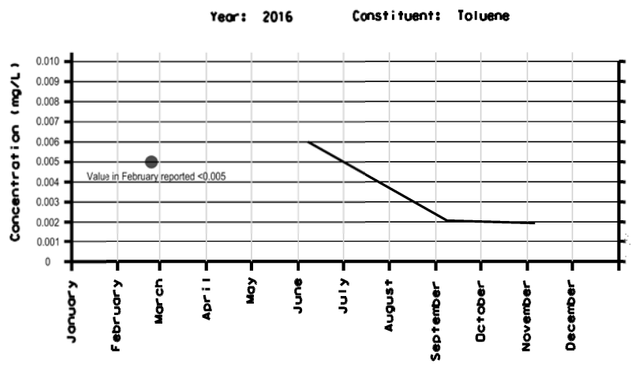
WESTERN REFINING - GALLUP REFINERY

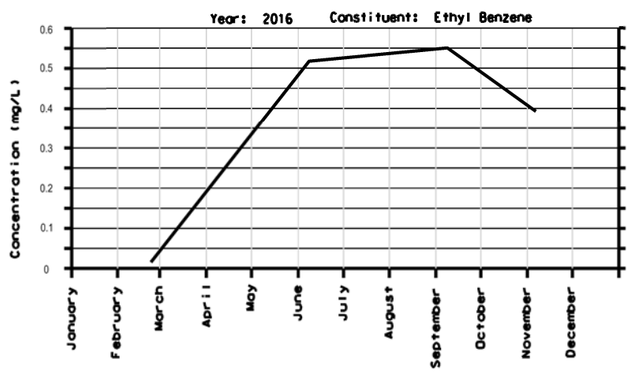
Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

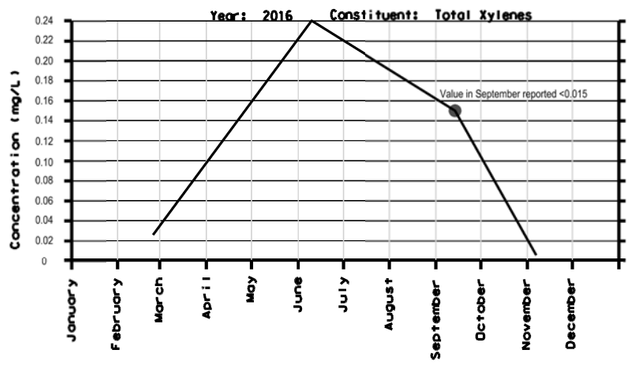
Date: May 15, 2017

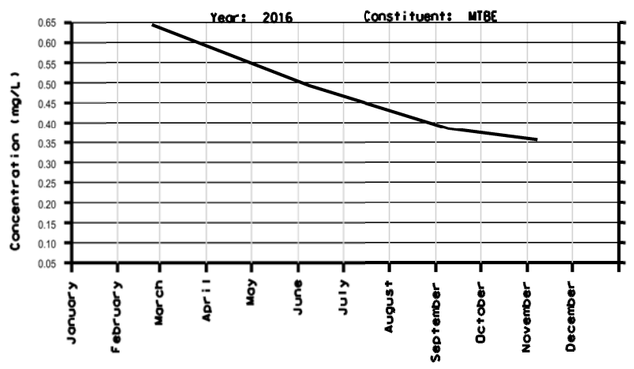
Well ID: MKTF-17



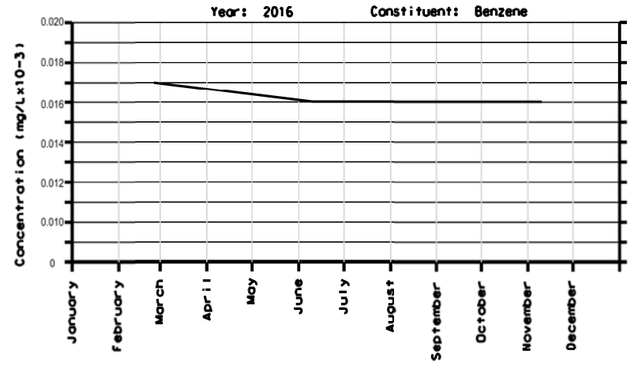


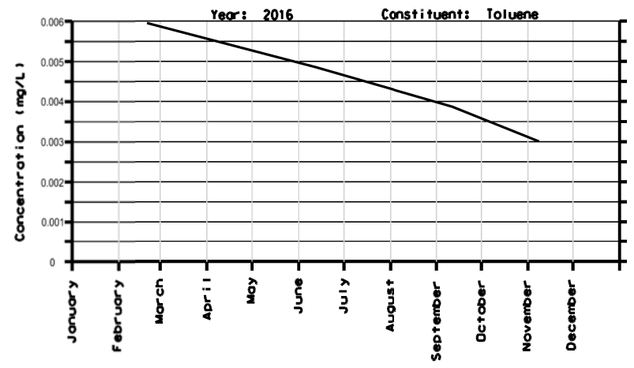


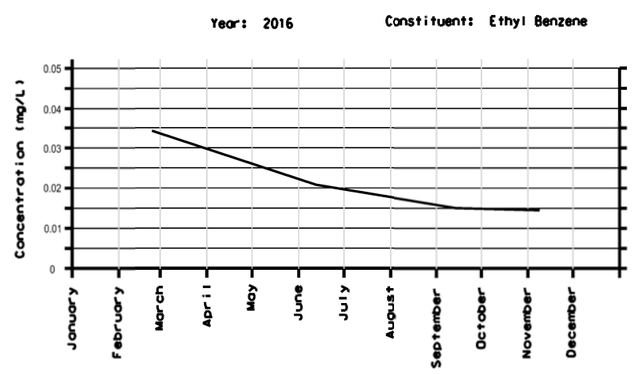


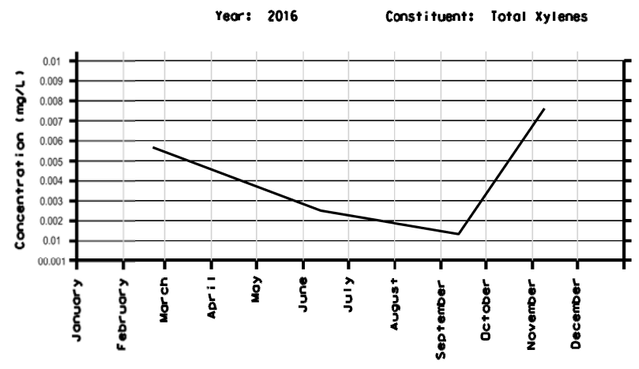


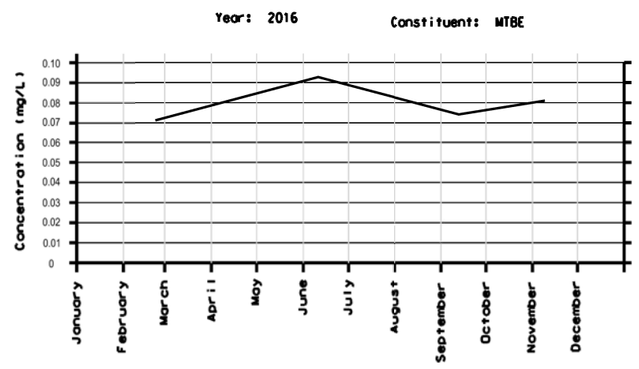
Well ID: MKTF-18











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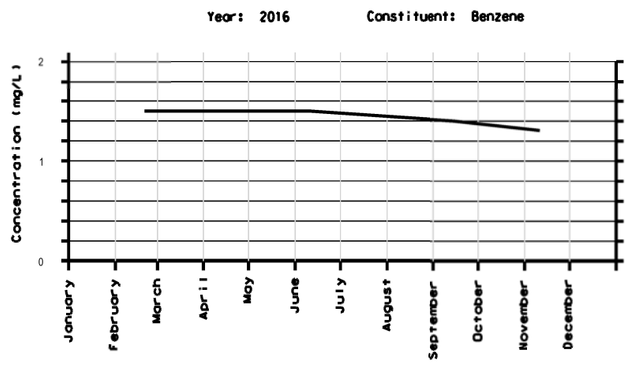
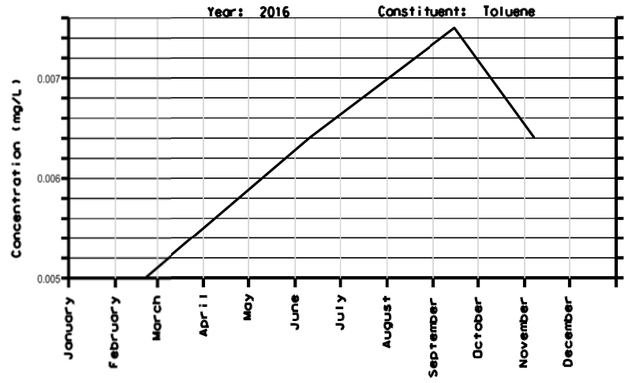
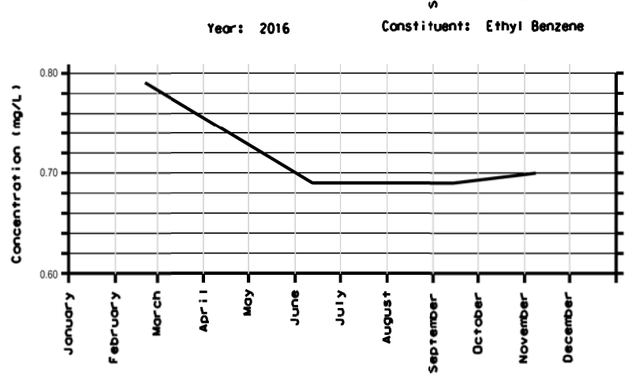
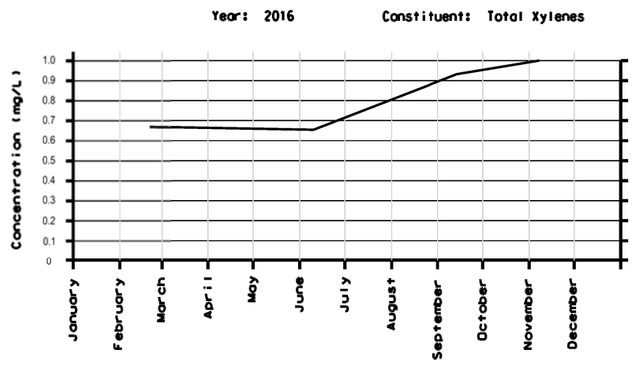
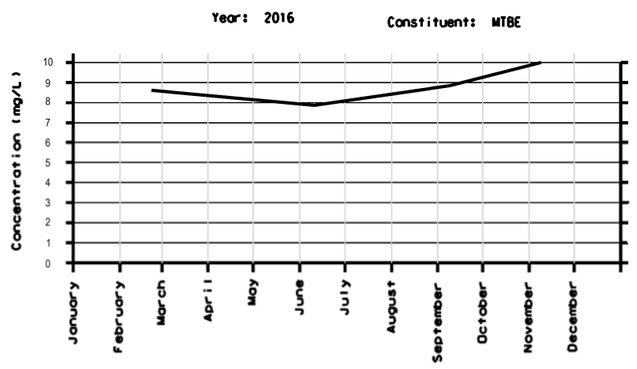


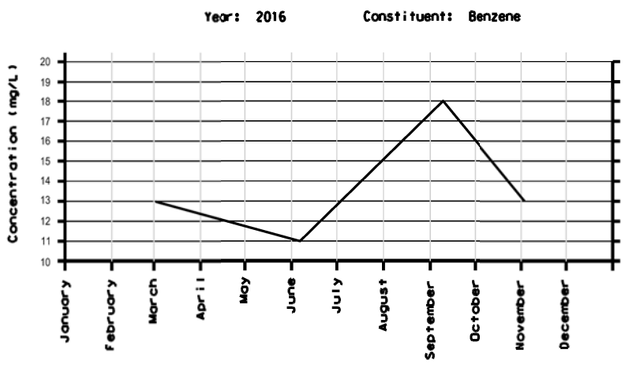


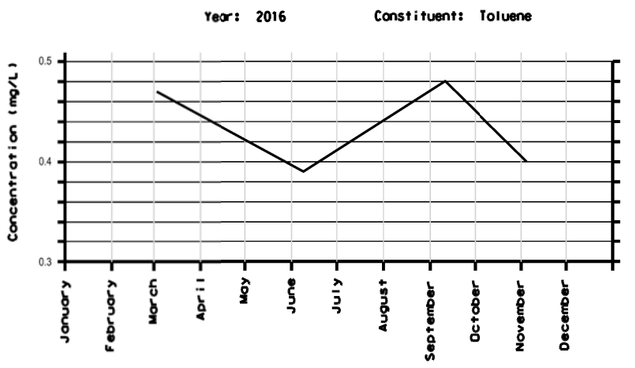


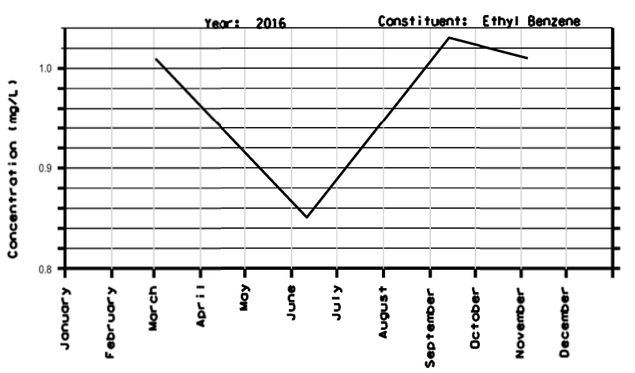


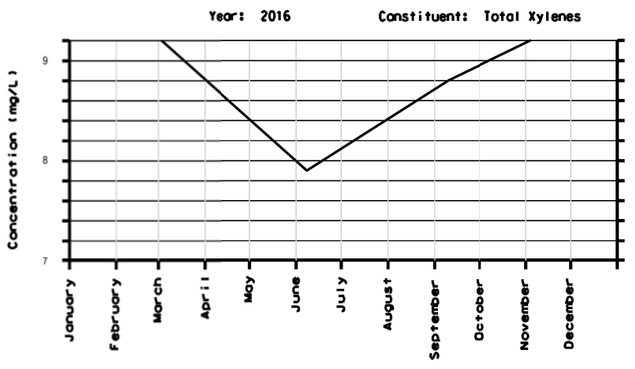


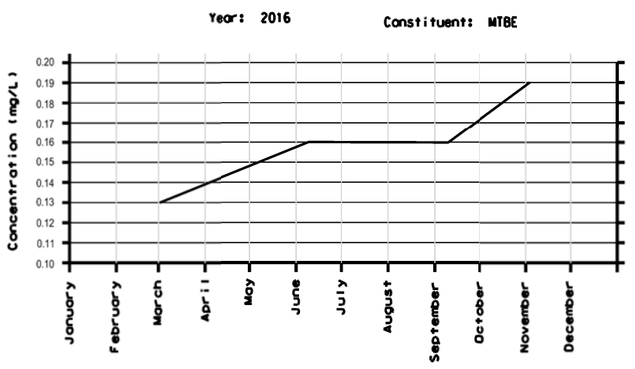
Well ID: MKTF-20











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Project #: 06251318

Figure 17.3

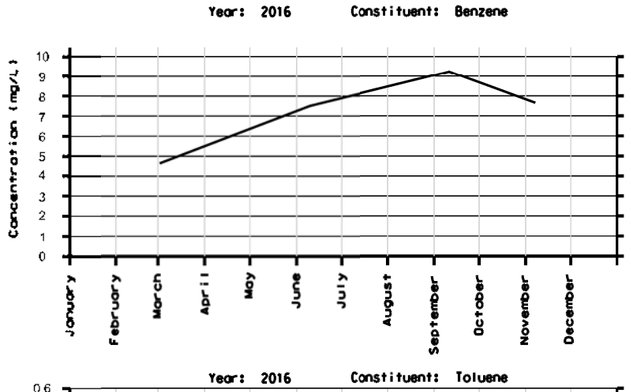
WELL GROUP E CONSTITUENTS

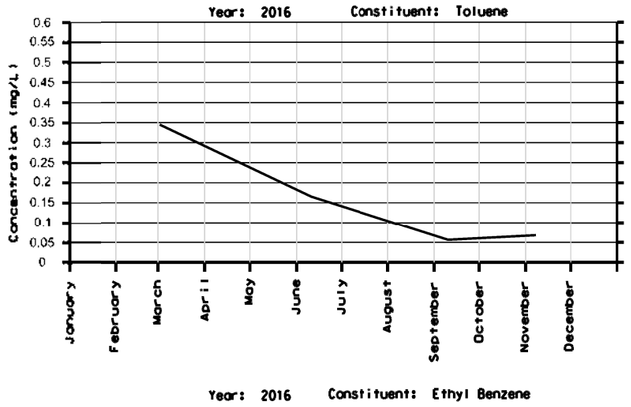
WESTERN REFINING - GALLUP REFINERY

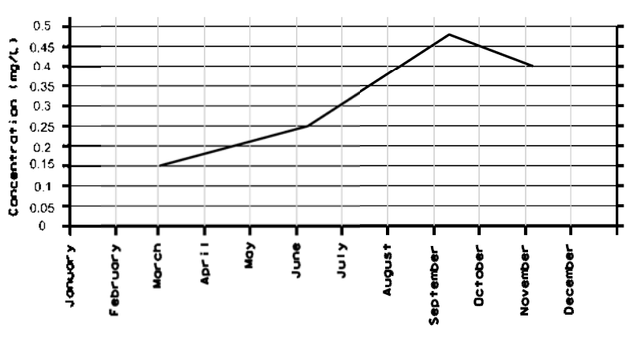
Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

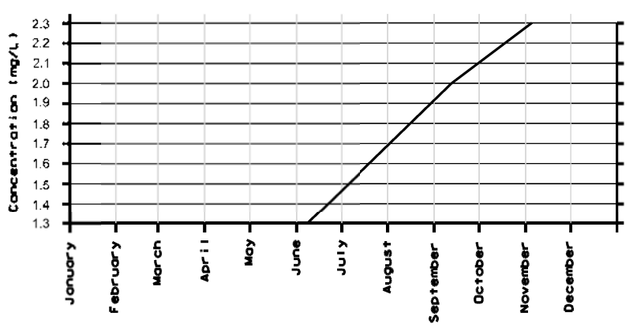
Date: May 17, 2017

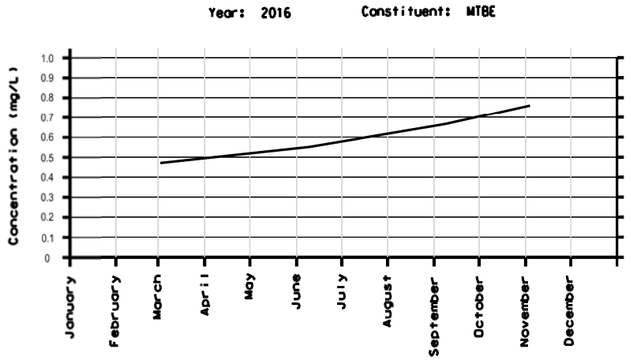
Well ID: MKTF-21











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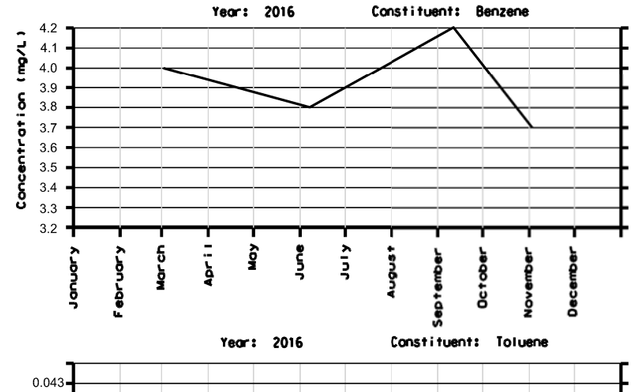
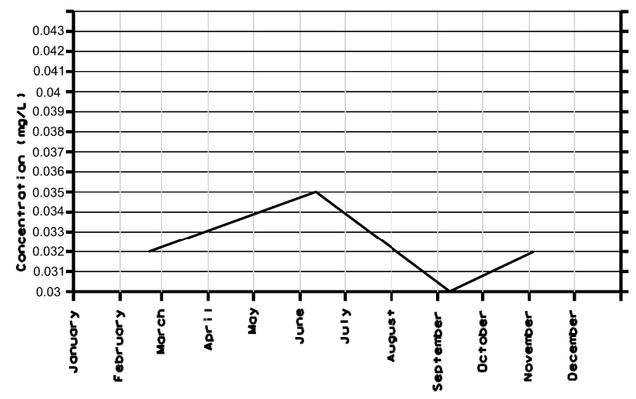
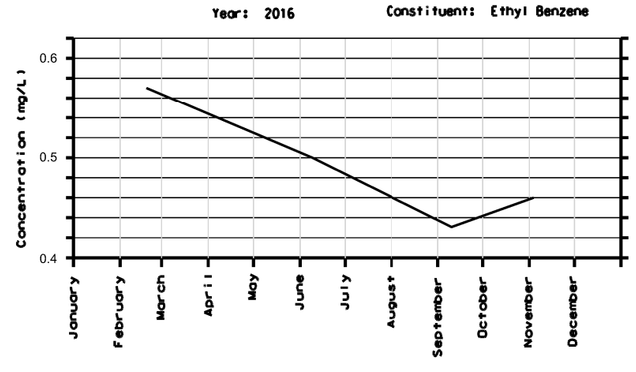
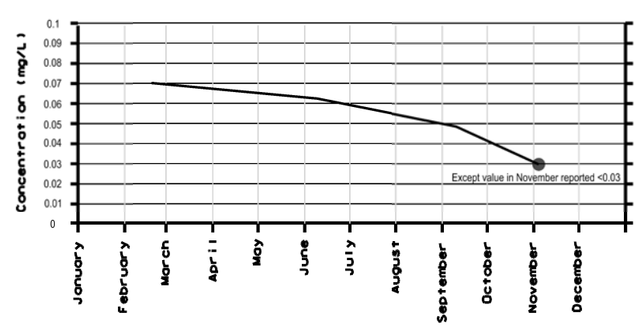
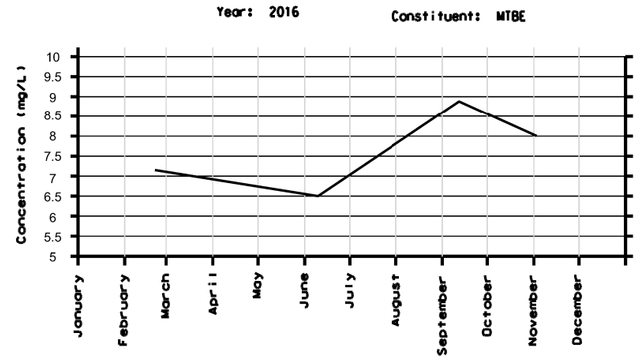


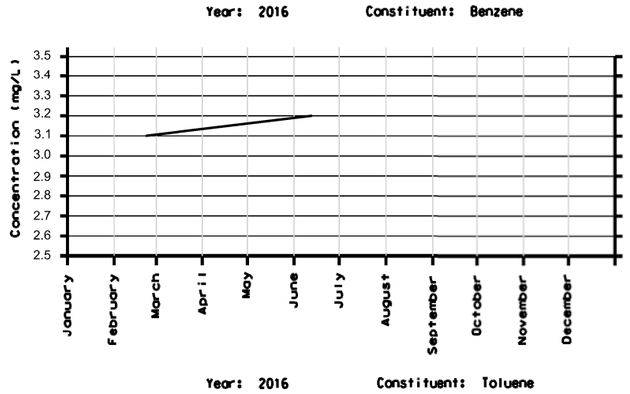


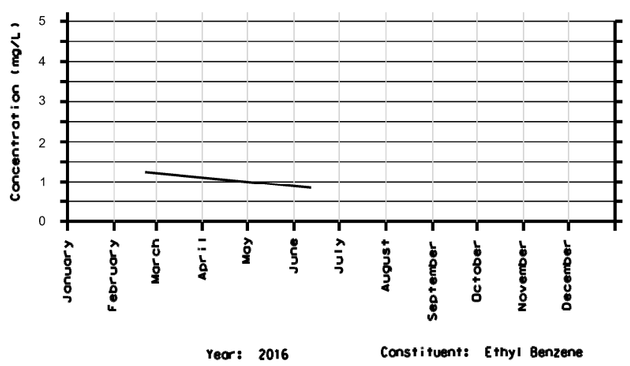


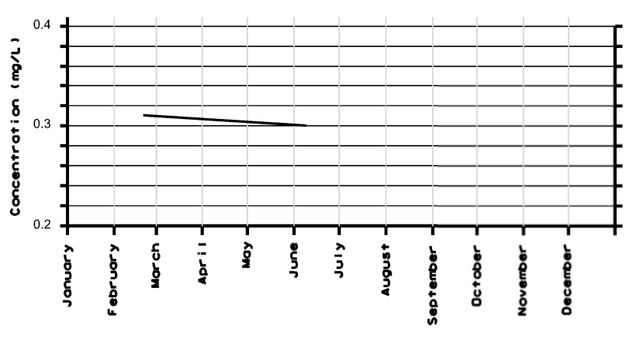


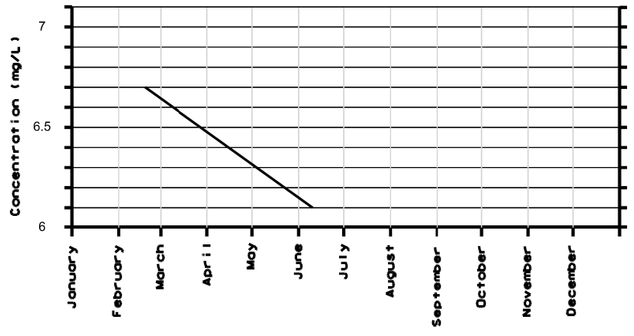


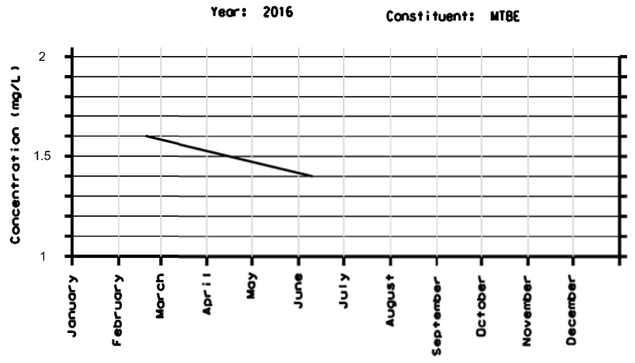
Well ID: MKTF-23



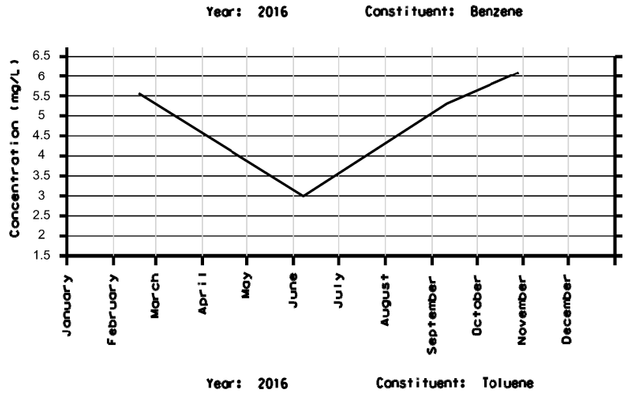


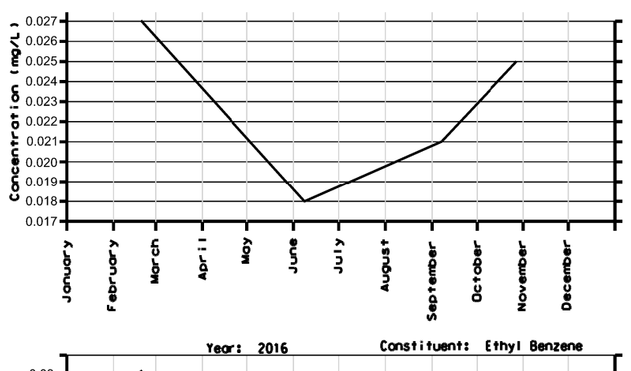


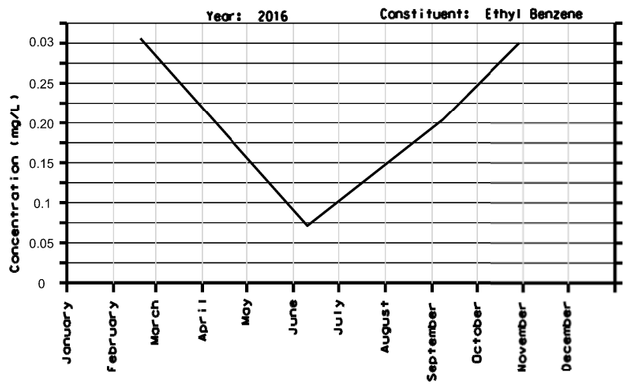


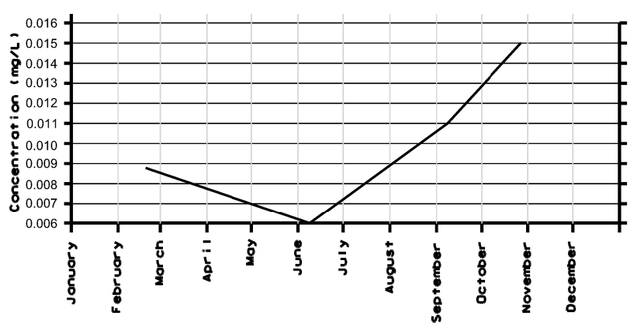


Well ID: MKTF-24









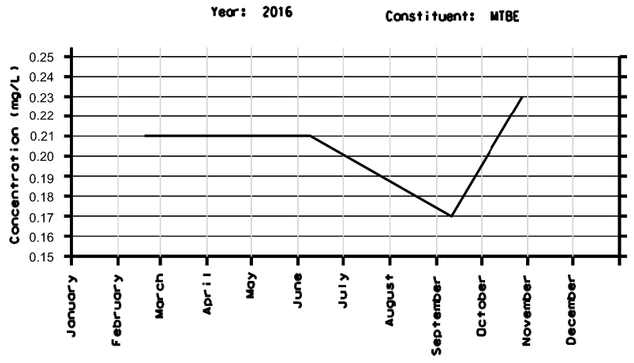


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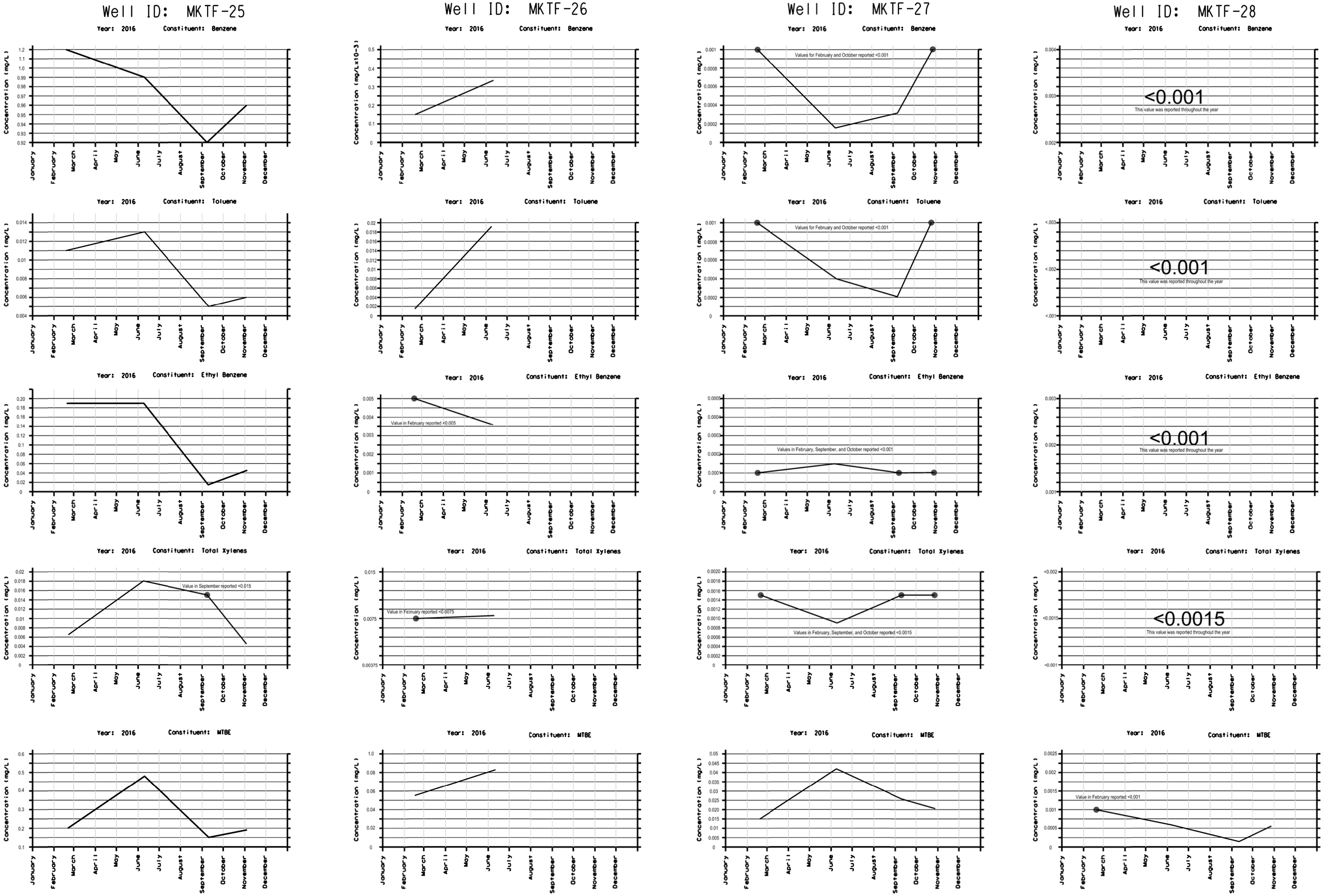
Figure 17.4

WELL GROUP E CONSTITUENTS

WESTERN REFINING - GALLUP REFINERY

Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

Date: May 18, 2017



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Project #: 06251318

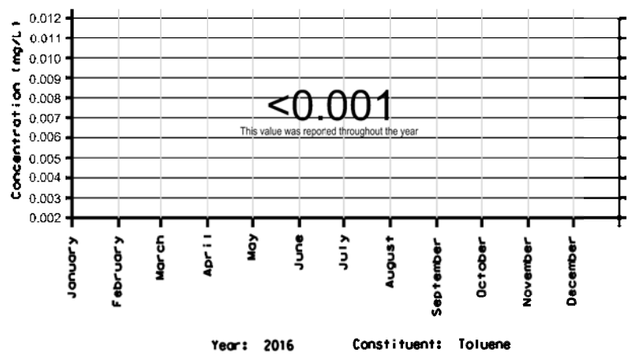
Figure 17.5

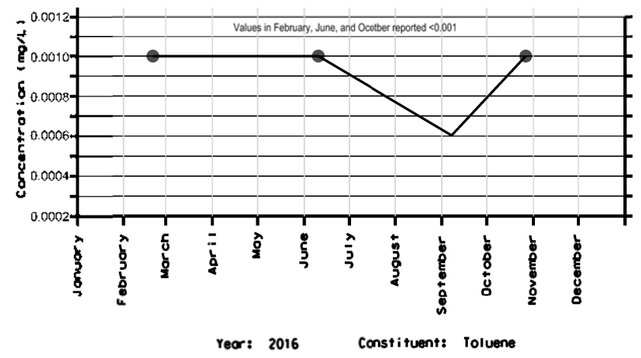
WELL GROUP E CONSTITUENTS

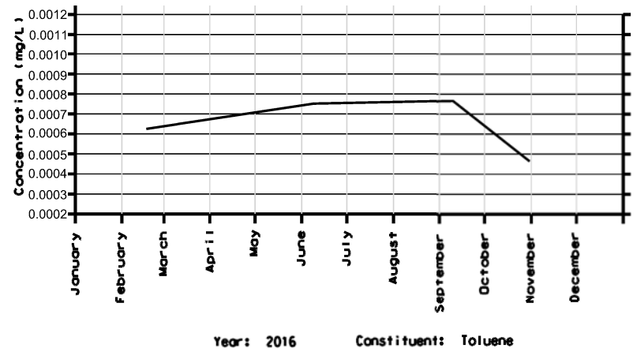
WESTERN REFINING - GALLUP REFINERY

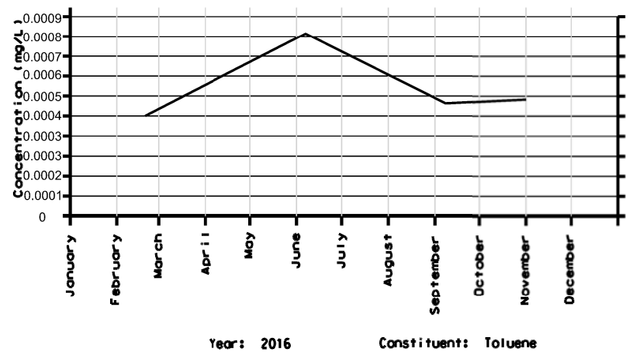
Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

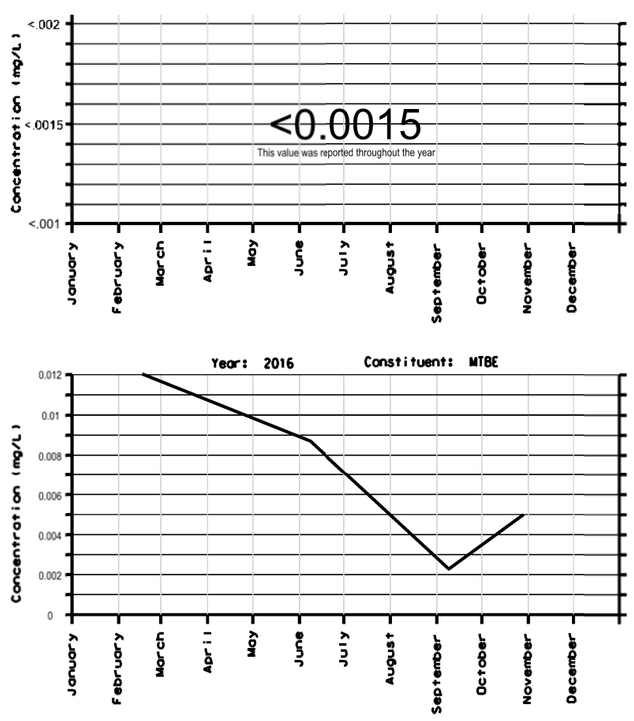
Date: May 19, 2017

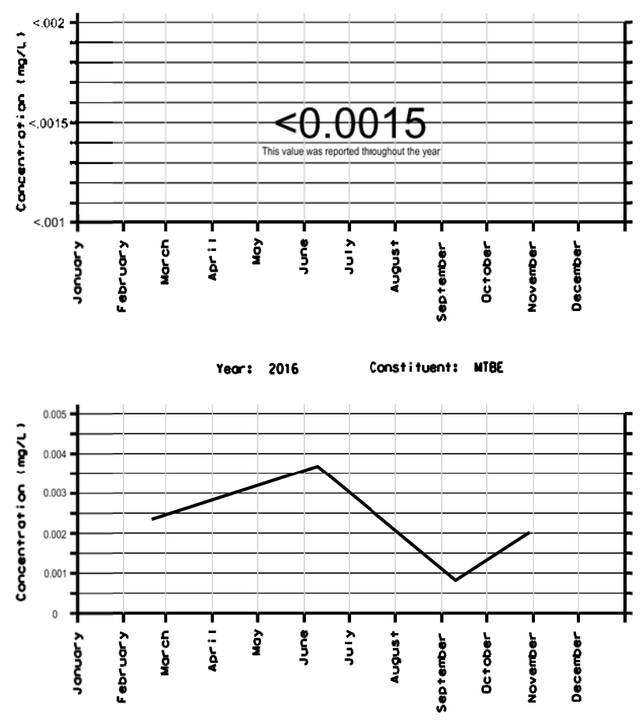


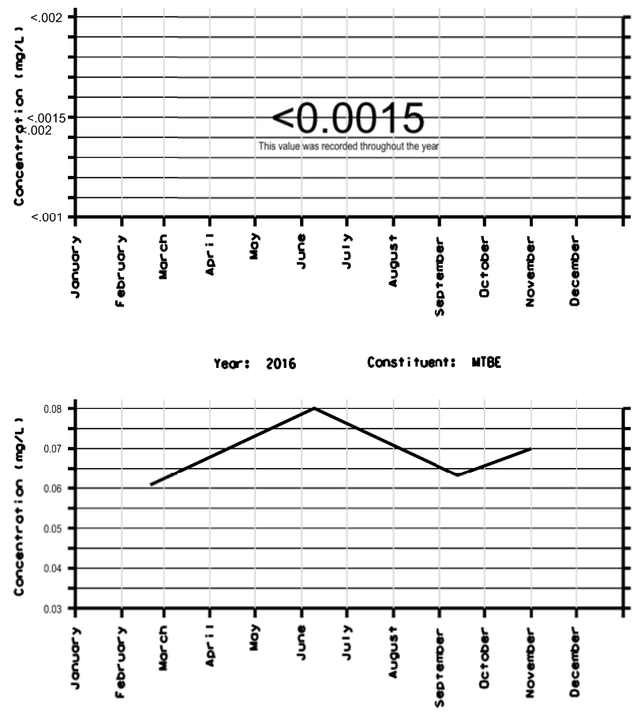












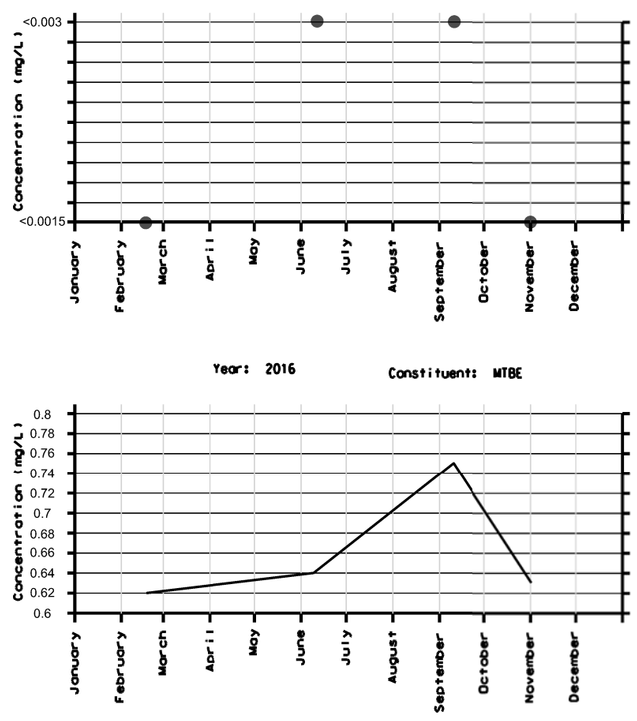


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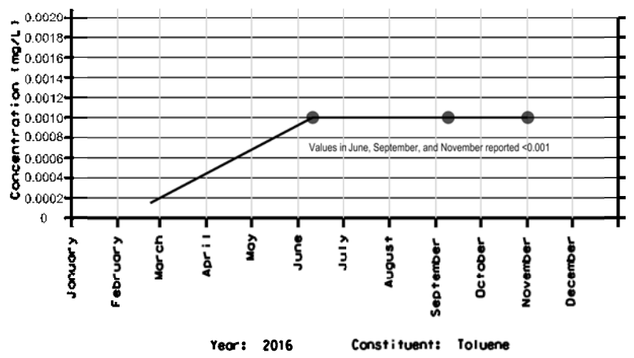
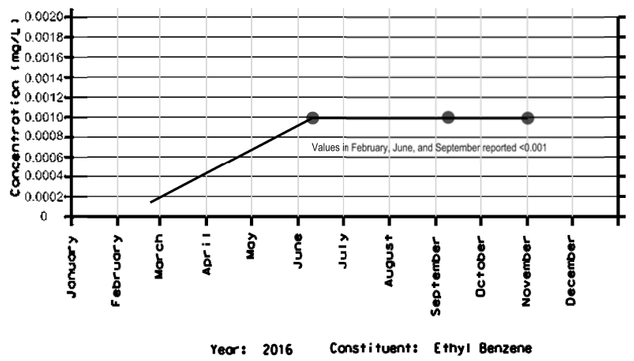
Figure 17.6
WELL GROUP E CONSTITUENTS
WESTERN REFINING - GALLUP REFINERY

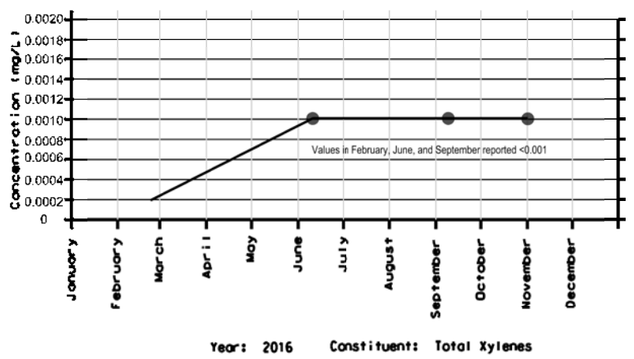
Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

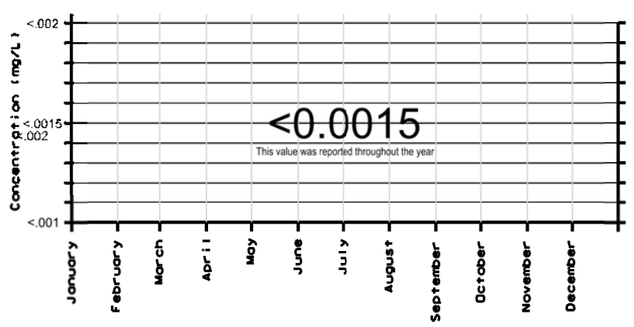
Date: May 19, 2017

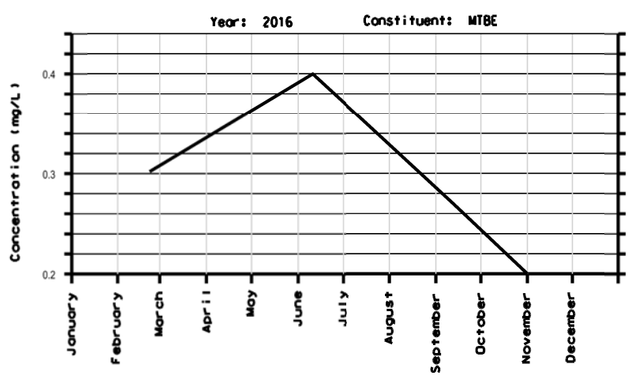
Well ID: MKTF-33



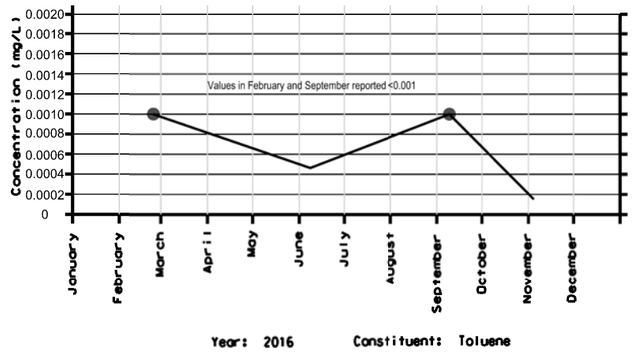


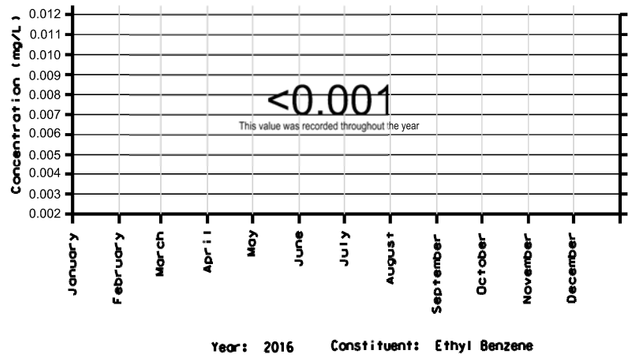


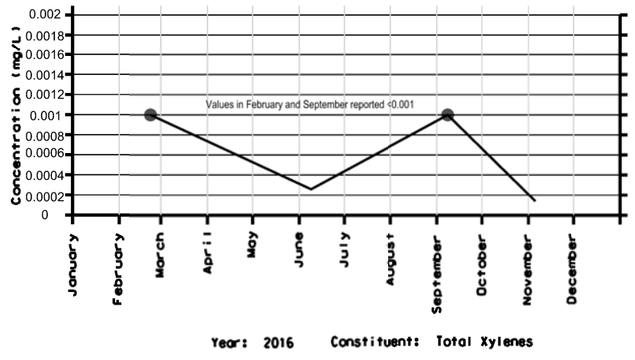


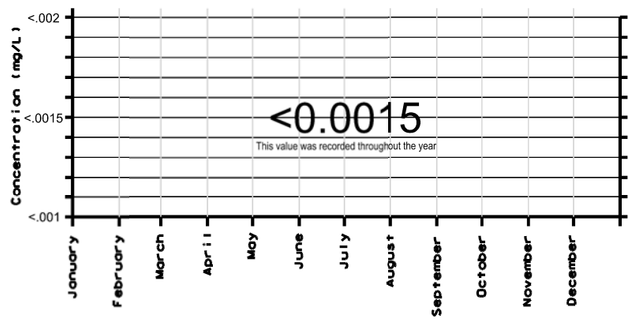


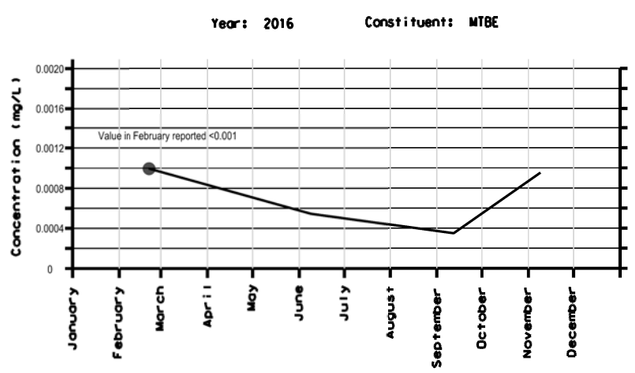
Well ID: MKTF-34











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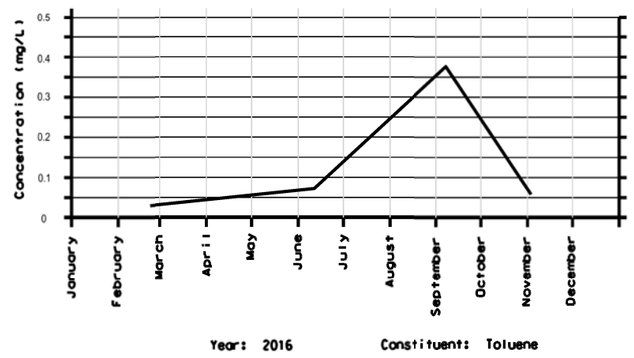

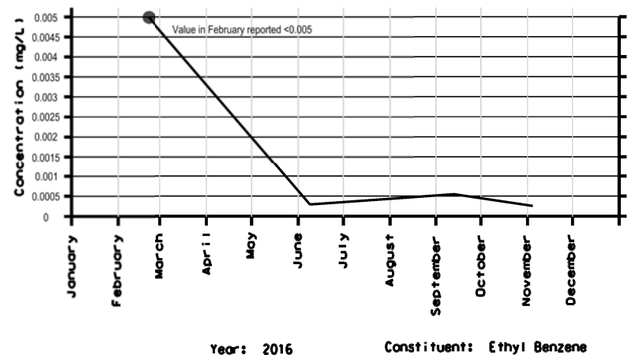

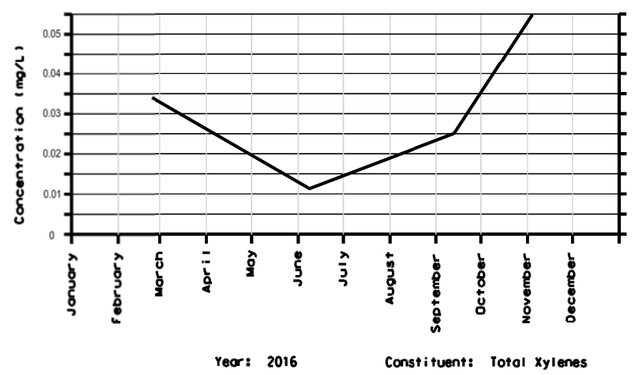

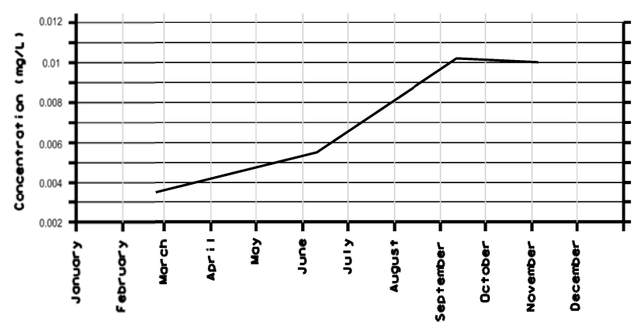

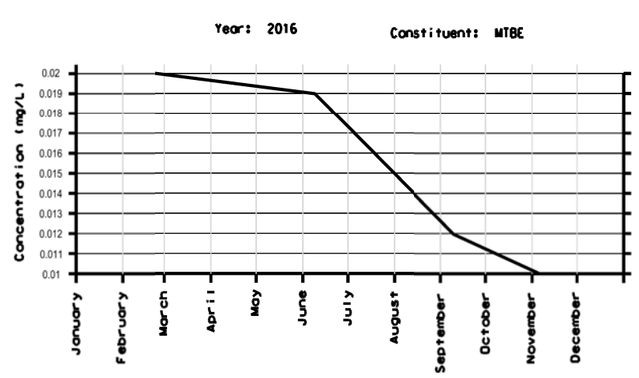

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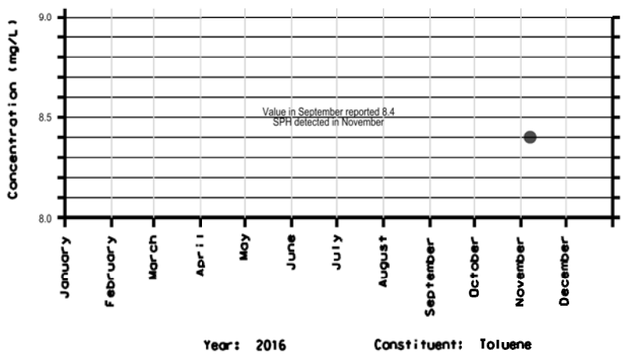

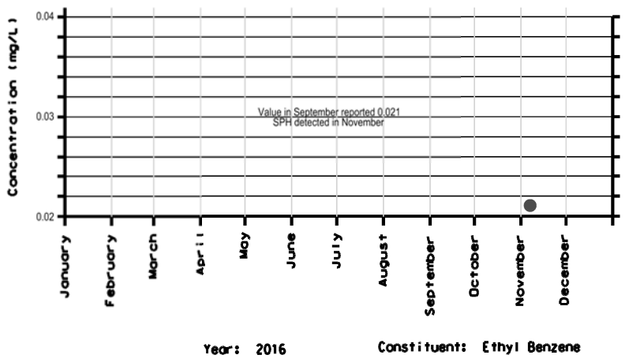

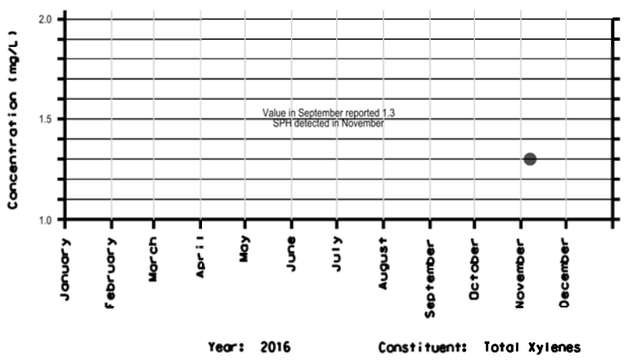

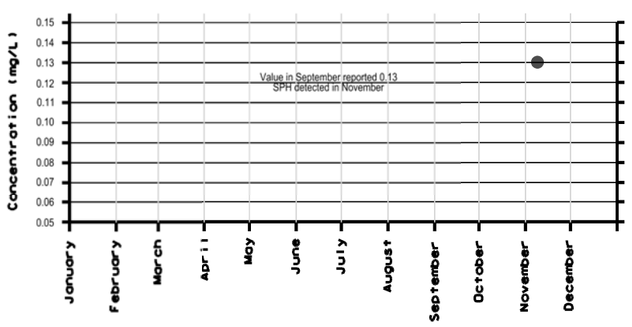

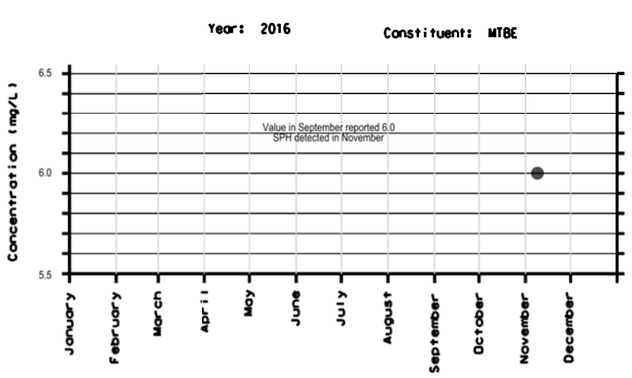

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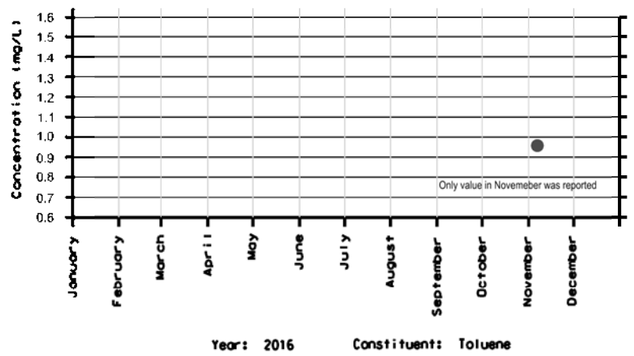
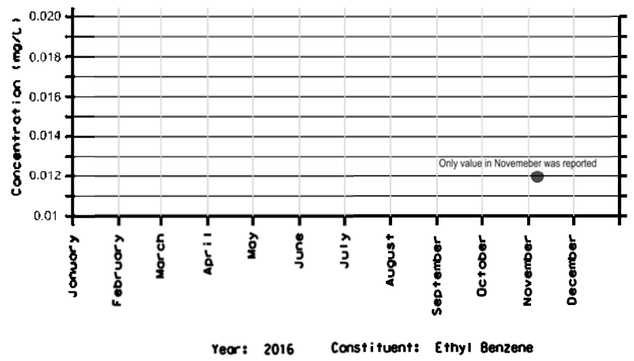
Figure 17.7
WELL GROUP E CONSTITUENTS
WESTERN REFINING - GALLUP REFINERY

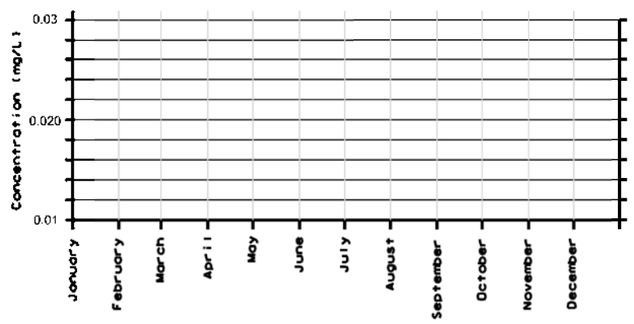
Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

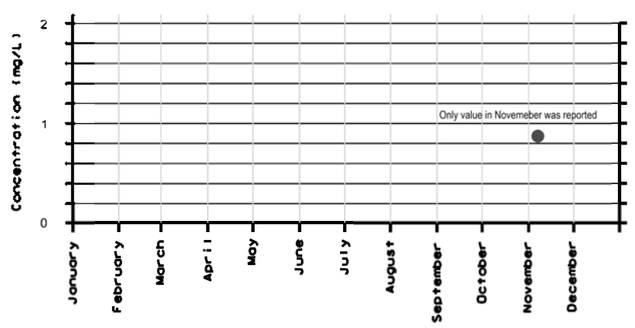
Date: June 1, 2017

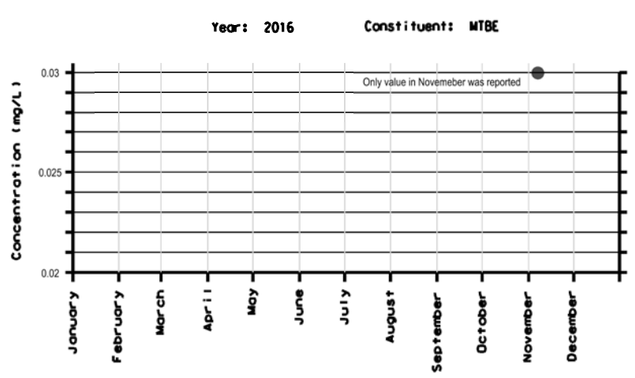
Well ID: MKTF-37



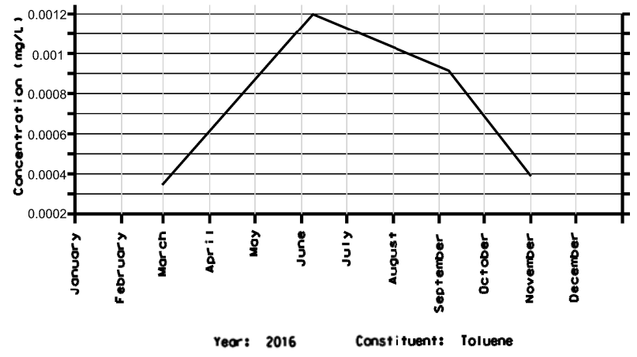


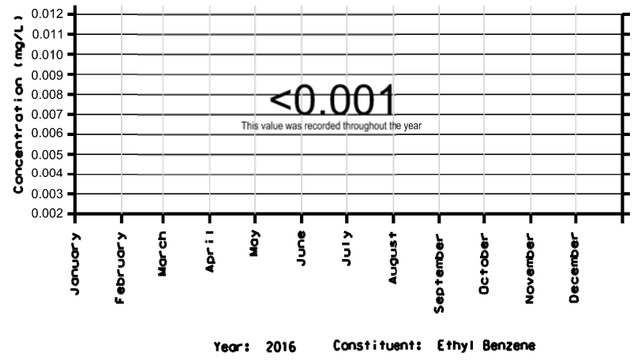


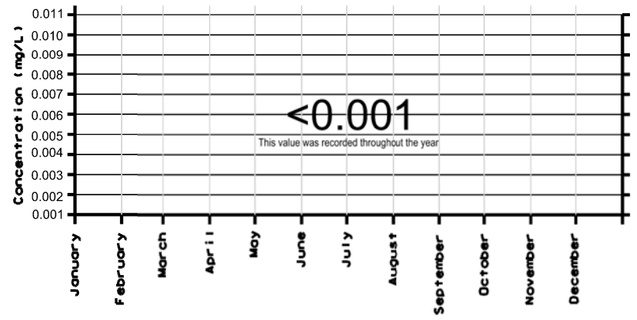


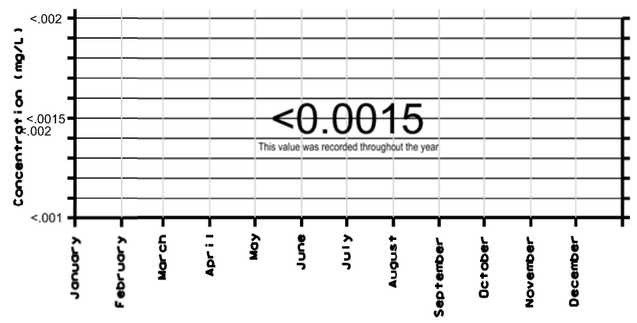


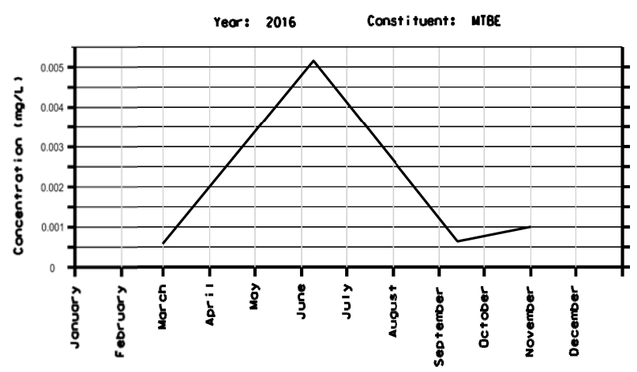
Well ID: MKTF-38











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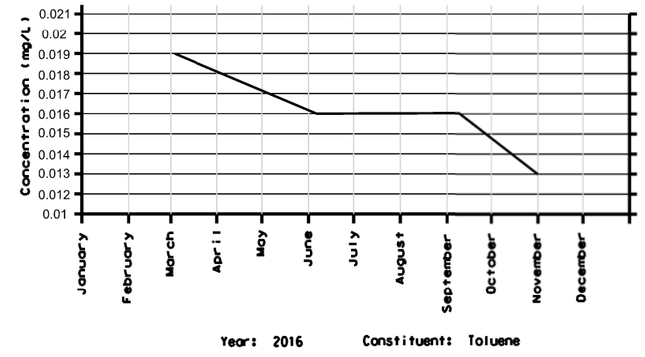

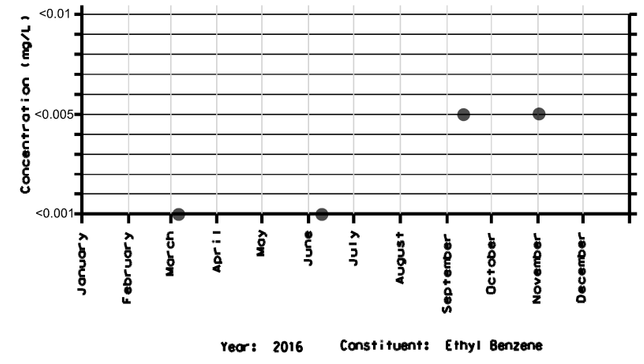

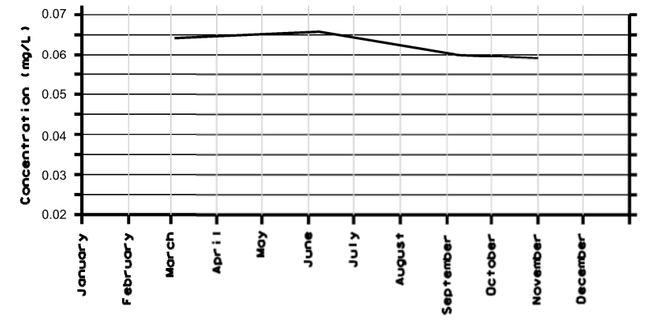

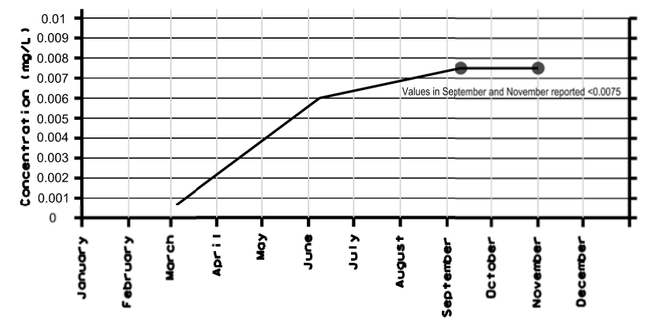

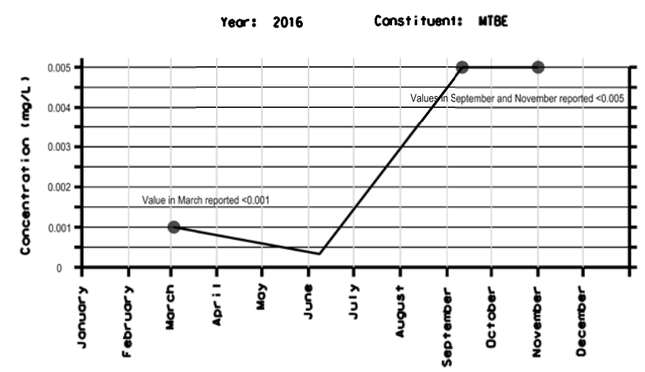

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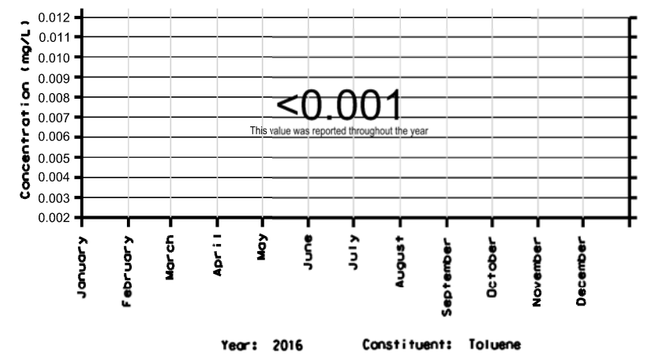

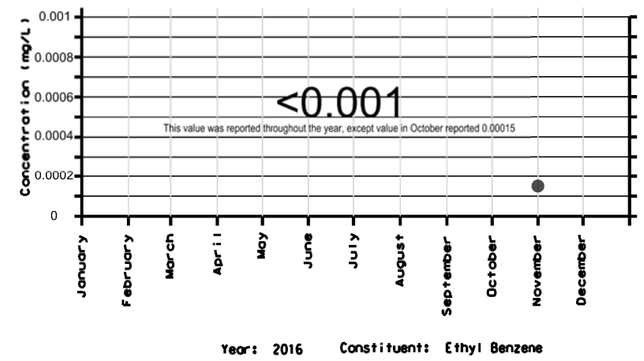

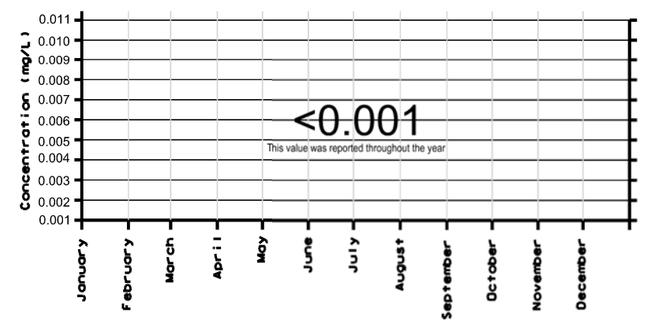

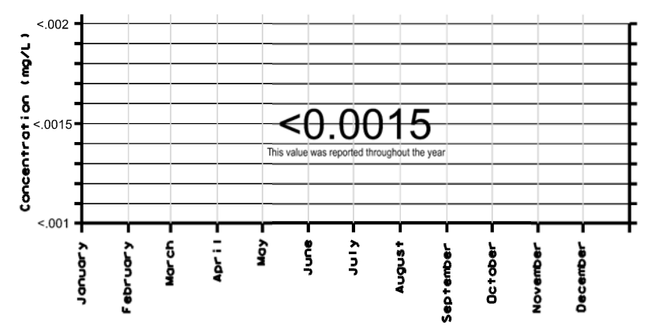

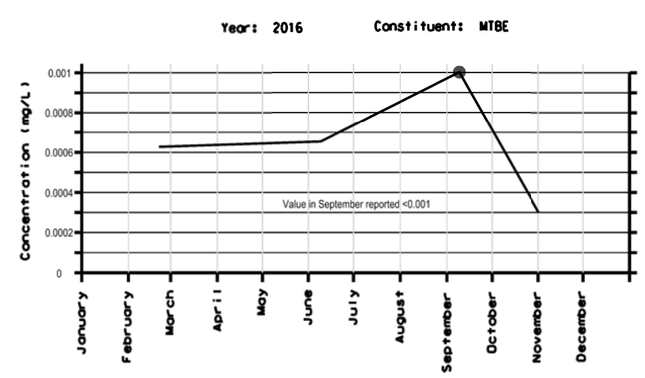

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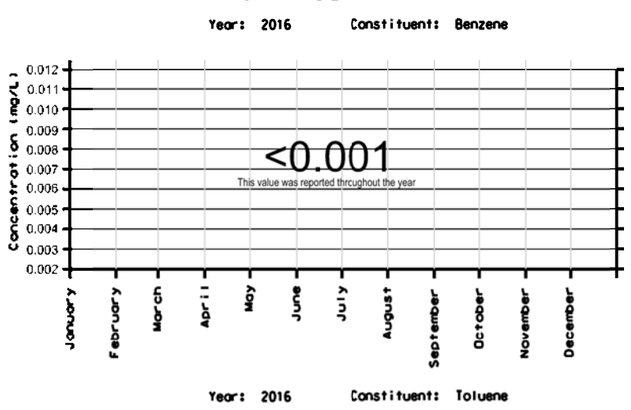
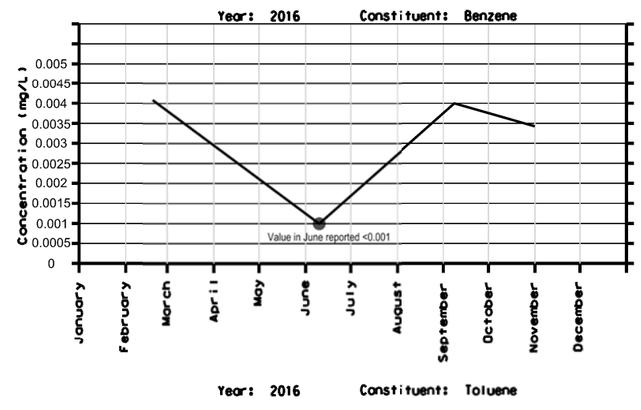
Figure 17.8
WELL GROUP E CONSTITUENTS

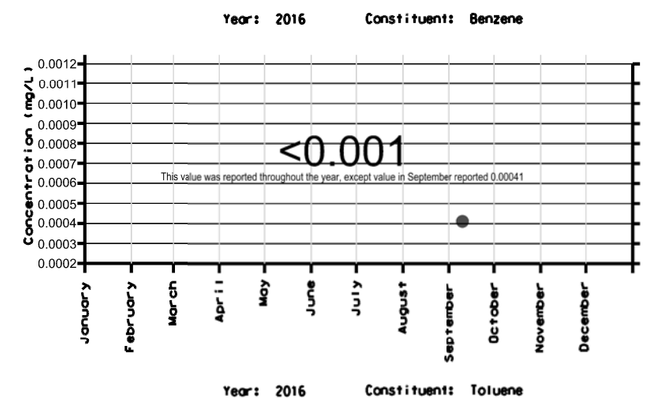
WESTERN REFINING - GALLUP REFINERY

Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

Date: June 1, 2016







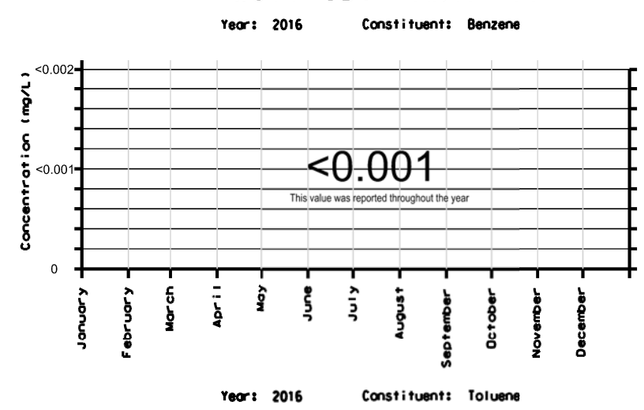


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Figure 17.9
WELL GROUP E CONSTITUENTS

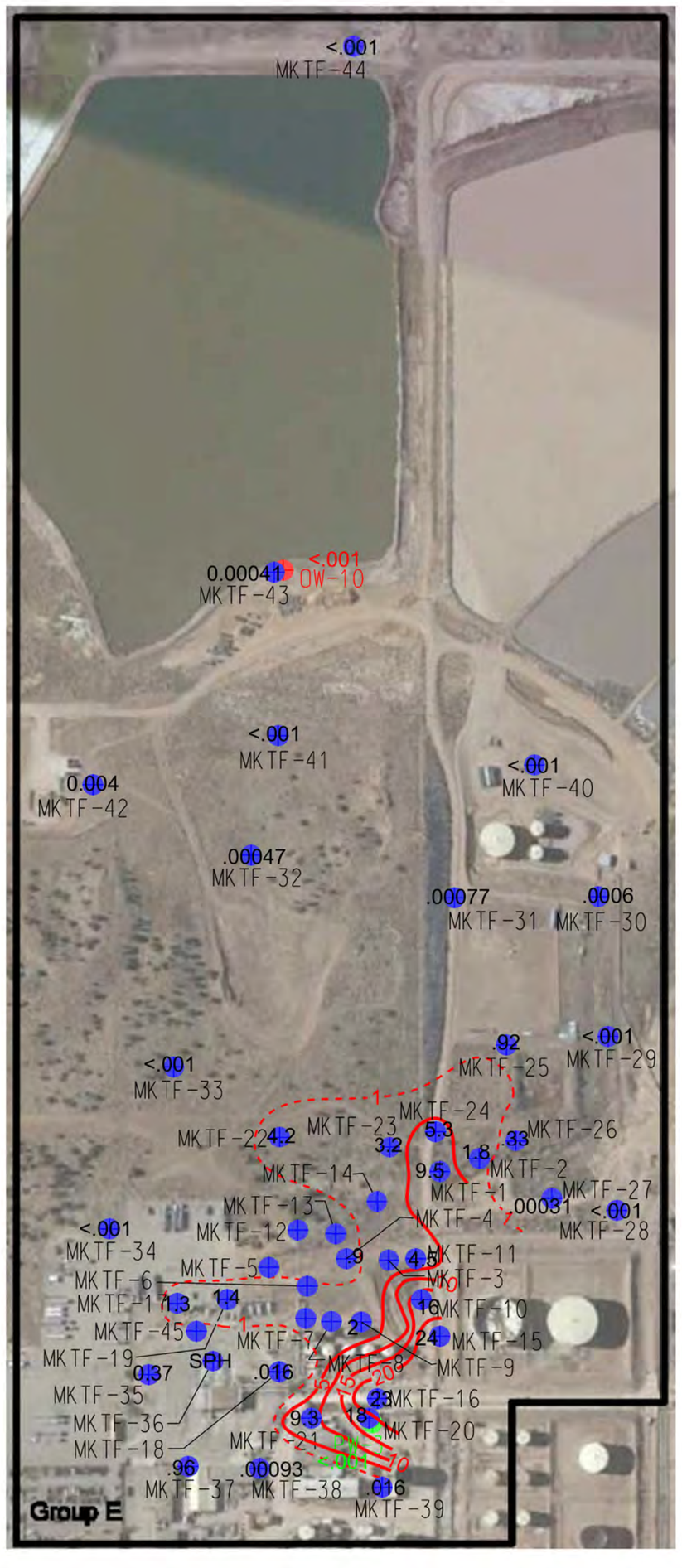
WESTERN REFINING - GALLUP REFINERY

Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

Date: June 1, 2016

Benzene (September 2016)

Contour Interval = 1.0



Toluene (September 2016)

Contour Interval = 1.0

Ethyl Benzene (September 2016)

Contour Interval = 0.10

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Project #: 06251318

Figure 17A

WELL GROUP E CONSTITUENTS

WESTERN REFINING - GALLUP REFINERY

Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

Date: May 11, 2017

Total Xylenes (September 2016)
Contour Interval = 1.0

MTBE (September 2016)
Contour Interval = 1.0

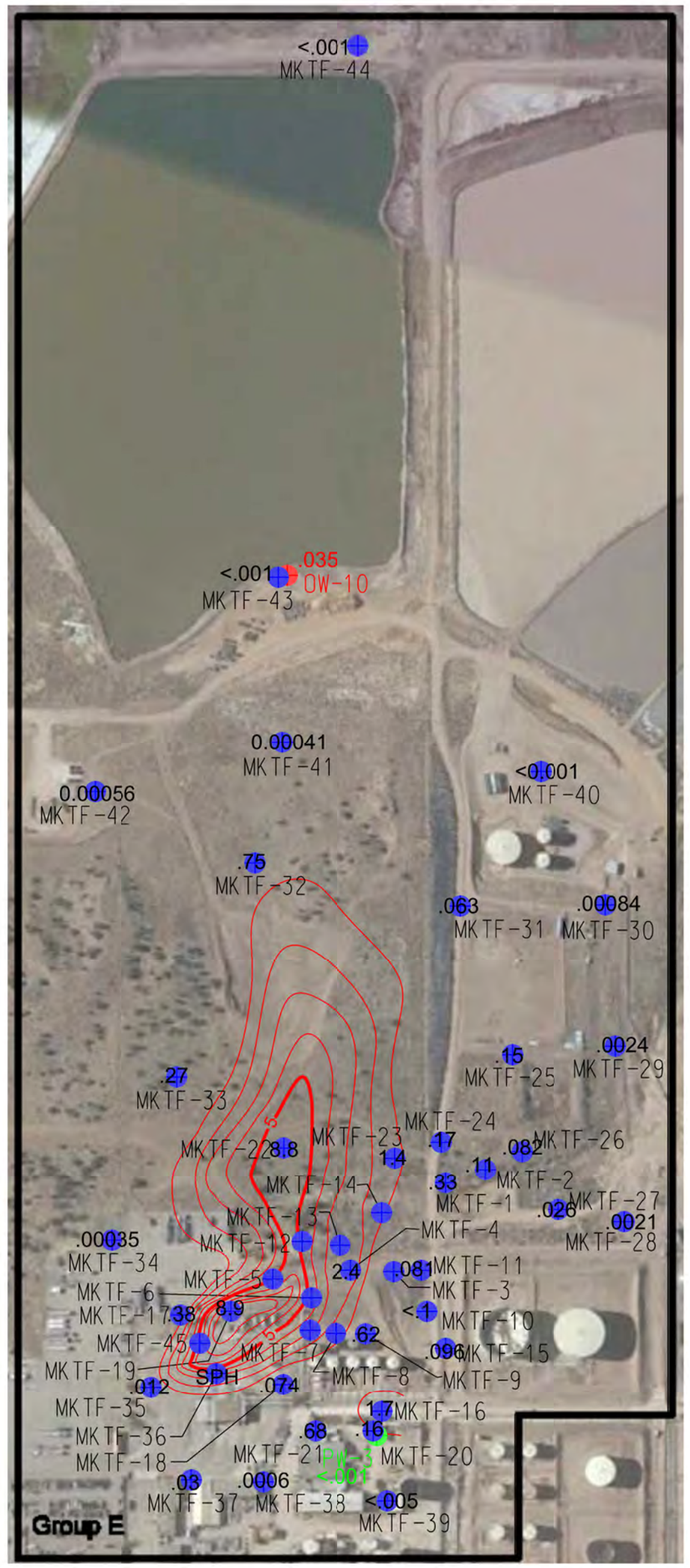

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Figure 17B
WELL GROUP E CONSTITUENTS
WESTERN REFINING - GALLUP REFINERY

Western Refining - Gallup Refinery
92 Giant Crossing Road
Gallup, New Mexico 87301

Date: May 11, 2017

APPENDIX A

SEPARATE PHASE HYDROCARBON RECOVERY LOGS

APPENDIX A - RW-1 HYDROCARBON RECOVERY LOG
2/22/05 thru 12/2015

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level [2] (ft)	Product Bailed or Purged [2] (gal)	Water Purged [2] (gal)
2/22/2005	8:30	1st	NR	Start	32.46	36.5	4.04	14	NR
3/2/2005	7:45	1st	NR	Start	32.42	36.44	4.02	9	NR
3/8/2005	8:30	1st	NR	Start	31.92	36.35	4.43	15	NR
3/9/2005	830	1st	NR	Start	31.92	37.5	5.58	4	NR
3/11 to 3/18/05	NR	1st	NR	Start	NR	NR	NR	74	NR
3/18 to 3/23/05	NR	1st	Pump	Continue pumping	NR	NR	NR	48	NR
3/23 to 4/1/05	NR	1st	Pump	Continue pumping	NR	NR	NR	62	NR
4/1 To 4/4/05		2nd	Pump	Pump shutdown to measure	NR	NR	NR	27	NR
4/5/2005	11:30	2nd	Pump		34.75	38.92	4.17	NR	NR
4/4 to 4/15/05	11:00	2nd	Pump	Continue pumping	NR	NR	NR	50	NR
4-15 to 5-5-05	12:30	2nd	Pump	Continue pumping	NR	NR	NR	45	154
5-5 to 6-17-05	11:30	2nd	Pump	Continue pumping	NR	NR	NR	24	196
6/27/2005	14:30	2nd		Pump shutdown to measure	NR	NR	NR	NR	NR
6/28/2005	11:30	2nd			32.46	33.25	0.79	NR	NR
6/28/2005		2nd	Pump	Continue pumping	NR	NR	NR	NR	NR
6/17 to 7/8/2005	10:30	2nd	Pump	Continue pumping	NR	NR	NR	18	146
7/8 to 8/9/2005	13:30	3rd	Pump	Continue pumping	NR	NR	NR	28	350
8/9 to 9/16/2005	11:35	3rd			36.46	36.54	0.08	8	240
12/5/2005	13:15	4th			31.92	34.71	2.79	NR	NR
12/8/2005	14:00	4th	Pump	Start	NR	NR	NR	NR	NR
12/22/2005	15:30	4th		stop	NR	NR	NR	5	120
12/29/2005	14:00	4th	Bailer	Hand bailed	NR	NR	NR	0.5	4.5
3/16/2006	13:00	1st.			NR	NR	NR	NR	NR
3/16/2006	14:30	1st.	Pump	Start	32.23	34.48	2.25	NR	NR
3/23/2006	14:30	1st.		Stop	NR	NR	NR	NR	NR
3/27/2006	15:30	1st.	Pump	Start	NR	NR	NR	NR	NR
3/31/2006	11:30	1st.	Pump	Continue pumping	NR	NR	NR	7	174
4/3/2006	11:30	2nd		Stop	NR	NR	NR	1	38
4/4/2006	11:00	2nd			32.75	33.08	0.33	NR	NR
6/6/2006	13:00	2nd			32.39	34.54	2.15	NR	NR
6/8/2006	15:00	2nd	Pump	Start	NR	NR	NR	NR	NR
6/29/2006	10:00	2nd		Stop	NR	NR	NR	8	365
7/31/2006	11:45	3rd			33.06	33.48	0.42	NR	NR
7/31/2006	11:45	3rd	Pump	Start pump	NR	NR	NR	NR	NR
8/3/2006	14:20	3rd		Stopped pump	NR	NR	NR	2	87
8/8/2006	9:00	3rd	Pump	Start pump	NR	NR	NR	NR	NR
8/10/2006	15:30	3rd	Pump	Start pump	NR	NR	NR	NR	NR
8/22/2006	9:00	3rd		Stopped. Pulled pump	NR	NR	NR	4.9	373
8/22/2006	9:45	3rd	Pump	Start pump	33.1	33.4	0.3	NR	NR

RW-1 HYDROCARBON RECOVERY LOG - Continued

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level [2] (ft)	Product Bailed or Purged [2] (gal)	Water Purged [2] (gal)
12/21/2006	15:55	4th	Pump	Start pump	35.2	36	0.8	0.62	70
2/21/2007	10:15	1st.	Pump	Start pump	33.42	34.6	1.18	0.63	53.5
6/5/2007	10:00	2nd		Compressor Down	32.42	32.71	0.29	NR	NR
6/5/2007	10:10	2nd		Hand Bailed	NR	NR	NR	0.05	9
6/6/2007	8:40	2nd		Hand bailed	NR	NR	NR	0.1	11
6/13/2007	14:00	2nd		Hand bailed	NR	NR	NR	0.1	12
6/14/2007	10:40	2nd		Hand bailed	NR	NR	NR	0.05	8
7/10/2007	10:08	3rd		Hand bailed	32.42	32.71	0.29	0.3	18
7/11/2007	9:25	3rd		Hand bailed	NR	NR	NR	0.21	NR
7/23/2007	10:00	3rd		Hand bailed	NR	NR	NR	0.1	NR
11/26/2007	10:50	4th		Hand bailed	30.76	36.45	5.69	0.18	37
2/18/2008	15:32	1st.		Hand Bailed - pump frozen	30.18	34.77	4.59	1.66	36
5/21/2008	14:10	2nd	Pump	Used Pump	30.33	34.57	4.24	1.39	51
9/12/2008[1]	14:30	3rd		Bladder pump malfunctioned	30.03	34.59	4.56	Not Bailed	0
11/13/2008	13:00	4th	Pump	Used Pump	30.02	34.63	4.61	0.94	65
2/11/2009	14:05	1st.	Pump	Used Pump	30.21	31.72	1.51	0.29	90
5/5/2009	11:30	2nd	Pump	Used Pump	30.22	30.8	0.58	0.41	76
8/10/2009	9:22	3rd	Pump	Used Pump	30.69	31.02	0.33	0.89	98
10/28/2009	10:55	4th	Pump	Used Pump	30.56	30.75	0.19	0.19	74
3/3/2010	9:00	1st	Pump	Used Pump	30.89	31.05	0.16	0.21	31
6/3/2010	13:10	2nd	Pump	Used Pump	30.99	31.09	0.1	0.1	32
9/20/2010	14:00	3rd	Pump	Used Pump	29.91	30.06	0.15	0.25	34
11/3/2010	9:10	4th	Pump	Used Pump	30.89	31.01	0.12	0.1	31
3/9/2011	10:19	1st	Pump	Used Pump	30.04	30.15	0.11	0.12	40
6/27/2011	8:05	2nd	Pump	Used Pump	30.52	30.63	0.11	0.1	45
10/3/2011	15:07	Annual	Pump	Used Pump	30.81	30.9	0.09	0.11	42
11/8/2011	8:30		Pump	Used Pump	30.77	30.85	0.08	0.09	38
3/15/2012	10:30	1st	Pump	Used Pump	29.31	29.34	0.03	0.02	22
6/4/2012	9:00	2nd	Pump	Used Pump	29.39	29.41	0.02	0.05	40
8/13/2012	10:30	3rd	Pump	Used Pump	29.54	30.13	0.59	0.4	40
10/8/2012	9:40	4th	Pump	Used Pump	29.28	30.18	0.9	0.5	35
3/26/2013	10:25	1st	Pump	Used Pump	29.11	32.6	3.49	0.028	24
6/17/2013	11:50	2nd	Pump	Used Pump	29.37	33.1	3.73	0.75	18
9/16/2013	11:05	3rd	Pump	Used Pump	28.75	33.09	4.34	0.8	19
11/12/2013	9:25	4th	Pump	Used Pump	28.73	33.11	4.38	0.75	25
3/7/2014	NR	1st	Pump	Used Pump	28.15	31.65	3.5	0.75	28
6/9/2014	NR	2nd	Pump	Used Pump	28.31	33.06	4.75	0.75	25
9/18/2014 [3]	NR	3rd		Annual Sampling Only	28.05	Unknown			
11/13/2014	NR	4th	Pump	Used Pump	28.11	33.04	4.93	0.87	30
3/23/2015	3:00	1st	Pump	Pump	28.2	32.8	4.6	0.5	25
6/9/2015	4:25	2nd	Pump	Pump	27.7	32.1	4.4	0.75	15
8/23/2015 [3]	10:10	3rd	Pump	Pump	28.08	30.02	1.94	None	None

RW-1 HYDROCARBON RECOVERY LOG - Continued

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level [2] (ft)	Product Bailed or Purged [2] (gal)	Water Purged [2] (gal)
10/29/2015	9:15	4th	Pump	Pump	27.65	30.1	2.45	0.75	14
3/4/2016	0:00	1st			28.05	30.55	2.5	None	None
6/8/2016	0:00	2nd			27.98	31.8	3.82	3.5	28
9/13/2016	2:05	3RD			27.9	32.04	4.14	2.5	10
11/16/2016	1:00	4th	Bailer	Start	27.8	30.9	3.1	2.5	15
					YTD TOTALS		**118.74**	**479.758**	**3662**

NOTES:

FT - Feet *NR - Not recorded*

Gal - Gallon *YTD -Year to date*

1) Bladder pump has torn diaphragm. Pump non-repairable. Ordered new pump

2) Measurements given are estimated values based on the technicians interpretation and should not be viewed as accurate.

3) Annual Samples collected - no purging done at this time.

RW-5 HYDROCARBON RECOVERY LOG - Continued

APPENDIX A - RW-5 HYDROCARBON RECOVERY LOG
2/22/05 thru 12/2015

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level [1] (ft)	Product Bailed/Purged [1] (gal)	Water Purged [1] (gal)
2/22/2005	14:15	1st	Bailer	Start	32.92	34.01	1.09	4.5	NR
3/3/2005	14:00	1st	Bailer	Start	33.08	33.42	0.34	6	NR
6/24/2005	9:00	2nd	Bailer	Start	32.96	34.04	1.08	2.5	NR
9/16/2005	9:20	3rd	Bailer	Start	32.83	33.85	1.02	2.5	NR
12/5/2005	14:00	4th	Bailer	Start	32.52	33.21	0.69	1.5	NR
3/16/2006	14:50	1st	Bailer	Start	32.58	33	0.42	1	NR
7/26/2006	14:35	2nd	Bailer	Start	32.9	33.31	0.41	0.5	NR
10/16/2006	09:15	4th	Bailer	Start	32.73	33.42	0.69	0.25	NR
2/13/2007	09:00	1st	Bailer	Start	32.17	33.95	1.78	0.5	NR
4/30/2007	11:20	2nd	Bailer	Start	33	33.83	0.83	2.5	NR
7/10/2007	10:15	3rd	Bailer	Start	33.1	33.92	0.82	2.5	NR
11/26/2007	08:00	4th	Bailer	Start	33.01	33.91	0.9	1.75	NR
2/18/2008	15:15	1st	Bailer	Start	33.19	33.95	0.76	0.19	20
5/21/2008	14:20	2nd	Bailer	Start	32.77	33.84	1.07	0.14	18
9/12/2008	14:30	3rd	Bailer	Start	32.62	32.85	0.23	0.05	15
11/3/2008	14:00	4th	Bailer	Start	31.05	32.34	1.29	0.05	15
2/11/2009	13:40	1st	Bailer	Start	32.08	32.15	0.07	0.05	15
5/5/2009	10:02	2nd	Bailer	Start	0	31.91	0	0	0
8/10/2009	9:50	3rd	Bailer	Start	0	31.94	0	0	0
10/28/2009	10:45	4th	Bailer	Start	0	31.71	0	0	0
3/3/2010	9:35	1st	Bailer	Start	0	31.63	0	0	0
6/3/2010	13:40	2nd	Bailer	Start	0	31.37	0	0	0
9/20/2010	14:24	3rd	Bailer	Start	0	31.94	0	0	0
11/3/2010	9:30	4th	Bailer	Start	0	31.94	0	0	0
3/9/2011	10:29	1st	Bailer	Start	0	30.05	0	0	20
6/27/2011	8:40	2nd	Bailer	Start	0	28.96	0	0	20
10/4/2011	8:15	3rd	Bailer	Start	0	29.89	0	0	14
11/8/2011	9:20	4th	Bailer	Start	0	29.85	0	0	17
3/15/2012	9:50	1st	Bailer	Start	0	29.32	0	0	15
6/4/2012	9:20	2nd	Bailer	Start	0	29.37	0	0	10
8/13/2012	10:50	3rd	Bailer	Start	0	29.49	0	0	10
10/8/2012	10:10	4th	Bailer	Start	0	29.58	0	0	15
3/26/2013	9:10	2nd	Bailer	Start	0	29.45	0	0	10
6/17/2013	10:20	2nd	Bailer	Start	0	29.44	0	0	14
9/16/2013	9:30	3rd	Bailer	Start	0	28.98	0	0	15
11/12/2013	9:50	4th	Bailer	Start	0	28.96	0	0	16

RW-5 HYDROCARBON RECOVERY LOG - Continued

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level [1] (ft)	Product Bailed/Purged [1] (gal)	Water Purged [1] (gal)
3/17/2014	NR	1st	Bailer	Start	0	27.92	0	0	15
6/9/2014	NR	2nd	Bailer	Start	0	28.8	0	0	20
9/18/2014 [2]	NR	3rd	Bailer	Start	0	28.81	0	0	0
11/13/2014	NR	4th	Bailer	Start	0	28.77	0	0	16
3/23/2015	3:15	1st	N/A	N/A	0	29.1	0	0	0
6/9/2015	4:10	2nd	Bailer	Start	0	28.8	0	0	15
8/23/2015	9:25	3rd	Bailer	Start	0	29.08	0	0	16
10/29/2015	1:35	4th	Bailer	Start	0	27.94	0	0	17
3/4/2016	0:00	1ST	Bailer	Start	0	28.22	0	0	15
6/7/2016	3:47	2ND	Bailer	Start	0	28.22	0	0	17
9/13/2016	9:10	3RD	Bailer	Start	0	27.7	0	0	20
11/16/2016	9:12	4th	Bailer	Start	0	27.4	0	0	20
					YTD TOTALS		**13.49**	**26.48**	**430**

NOTES:

FT - Feet NR - Not recorded

Gal - Gallon YTD - Year to Date

1) Measurements given are estimated values based on the technicians interpretation.

2) Annual grab samples collected - no purging of well at this time.

RW-6 HYDROCARBON RECOVERY LOG - Continued
APPENDIX A - RW-6 HYDROCARBON RECOVERY LOG
2/22/05 thru 12/2015

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level [1] (ft)	Product Bailed/Purged [1] (gal)	Water Purged [1] (gal)
2/22/2005	14:30	1st	Bailer	Start	33.12	34.5	1.38	4.5	NR
3/3/2005	14:00	2nd	Bailer	Start	33.15	34	0.85	6	NR
6/24/2005	11:00	2nd	Bailer	Start	33.31	34.46	1.15	3.5	NR
9/16/2005	10:20	3rd	Bailer	Start	32.98	34.33	1.35	3	NR
3/16/2006	12:45	1st	Bailer	Start	32.67	33.75	1.08	2.5	NR
7/26/2006	15:00	2nd	Bailer	Start	33	34.12	1.12	1.5	NR
10/16/2006	09:55	4th	Bailer	Start	33.71	34.63	0.92	0.75	NR
2/13/2007	09:50	1st	Bailer	Start	33.29	34.5	1.21	0.75	NR
4/30/2007	11:25	2nd	Bailer	Start	34.42	34.58	0.16	0.25	NR
7/10/2007	10:08	3rd	Bailer	Start	33.29	34.58	1.29	6.78	NR
11/28/2007	08:10	4th	Bailer	Start	33.25	34.47	1.22	4.5	NR
2/18/2008	15:11	1st	Bailer	Start	33.44	34.35	0.91	0.11	20
5/21/2008	14:30	2nd	Bailer	Start	33.02	34.12	1.1	0.13	18
9/12/2008	14:35	3rd	Bailer	Start	32.12	32.83	0.71	0.09	15
11/3/2008	14:35	4th	Bailer	Start	32.46	32.69	0.23	0.04	15
2/11/2009	13:30	1st	Bailer	Start	32.19	32.35	0.16	0.12	15
5/5/2009	9:45	2nd	Bailer	Start	32.08	32.26	0.18	0.04	15
8/10/2009	9:55	3rd	Bailer	Start	32.04	32.28	0.24	0.03	15
10/28/2009	10:55	4th	Bailer	Start	31.81	32.03	0.22	0.03	12
3/3/2010	9:40	1st	Bailer	Start	31.78	32.01	0.23	0.05	15
6/3/2010	13:45	2nd	Bailer	Start	31.61	31.7	0.09	0.05	15
9/20/2010	14:30	3rd	Bailer	Start	32.04	32.28	0.24	0.03	15
11/3/2010	9:35	4th	Bailer	Start	32.01	32.1	0.09	0.02	15
3/9/2011	10:34	1st	Bailer	Start	30.24	30.26	0.02	0.04	25
6/27/2011	9:25	2nd	Bailer	Start	30.11	30.15	0.04	0.04	30
10/4/2011	9:05	3rd	Bailer	Start	29.91	29.94	0.03	0.09	30
11/8/2011	9:45	4th	Bailer	Start	29.90	29.93	0.03	0.05	25
3/15/2012	9:55	1st	Bailer	Start	0	29.46	0	0	17
6/4/2012	9:25	2nd	Bailer	Start	0	29.54	0	0	20
8/13/2012	11:00	3rd	Bailer	Start	0	29.57	0	0	15
10/8/2012	10:15	4th	Bailer	Start	0	29.62	0	0	15
3/26/2013	9:15	1st	Bailer	Start	0	29.59	0	0	20
6/17/2013	10:25	2nd	Bailer	Start	0	29.52	0	0	15
9/16/2013	10:10	3rd	Bailer	Start	0	29.13	0	0	20
11/12/2013	9:50	4th	Bailer	Start	0	29.1	0	0	15
3/17/2014	NR	1st	Bailer	Start	0	27.92	0	0	15
6/9/2014	NR	2nd	Bailer	Start	0	28.8	0	0	20
9/18/2014 [2]	NR	3rd	Bailer	Start	0	28.81	0	0	0
11/13/2014	NR	4th	Bailer	Start	0	28.77	0	0	16
3/23/2015	3:15	1st	N/A	N/A	0	29.18	0	0	0
6/9/2015	4:12	2nd	Bailer	Start	0	28.68	0	0	15
8/23/2015	9:27	3rd	Bailer	Start	0	29.06	0	0	20
10/29/2015	3:37	4th	Bailer	Start	0	27.97	0	0	19
3/4/2016	0:00	1st	Bailer	Start	0	28.25	0	0	14
6/7/2016	3:45	2nd	Bailer	Start	0	28.24	0	0	18
9/13/2016	9:50	3RD	Bailer	Start	0	27.99	0	0	20
11/16/2016	9:15	4th	Bailer	Start	0	27.72	0	0	20

RW-6 HYDROCARBON RECOVERY LOG - Continued

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level [1] (ft)	Product Bailed/Purged [1] (gal)	Water Purged [1] (gal)
					YTD TOTALS		**16.25**	**34.99**	**609**

NOTES:

FT - Feet NR - Not recorded

Gal - Gallon YTD - Year to Date

1) Measurements given are estimated values based on the technicians interpretation.

2) Annual grab samples collected - no purging of well at this time.

APPENDIX A
ESTIMATED YEAR TO DATE SUMMARY 1995 THRU 2016

RW-1

Year	Product Thickness Level [1] (ft)	Product Bailed/Purged [1] (gal)	Water Purged [1] (gal)
2005	25.9	431.5	1210.5
2006	6.25	23.52	1107
2007	7.45	1.72	148.5
2008	18	3.99	152
2009	2.6	1.78	338
2010	0.53	0.66	128
2011	0.39	0.42	165
2012	1.54	0.97	137
2013	1.54	15.198	86
2014	2.37	2.37	83
2015	26.95	10.5	107
2106	13.56	8.5	53
TOTAL	**107.08**	**501.128**	**3715**

RW-5

Year	Product Thickness Level [1] (ft)	Product Bailed/Purged [1] (gal)	Water Purged [1] (gal)
2005	4.22	17	NR
2006	1.52	1.75	NR
2007	4.33	7.25	NR
2008	3.35	0.43	68
2009	0.07	0.05	15
2010	0	0	0
2011	0	0	71
2012	0	0	50
2013	0	0	55
2014	0	0	51
2015	0	0	48
2016	0	0	72
TOTAL	**13.49**	**26.48**	**430**

RW-6

Year	Product Thickness Level [1] (ft)	Product Bailed/Purged [1] (gal)	Water Purged [1] (gal)
2005	4.73	17	NR
2006	3.12	4.75	NR
2007	3.88	12.28	NR
2008	2.95	0.37	68
2009	0.8	0.22	57
2010	0.65	0.15	60
2011	0.12	0.22	110
2012	0	0	67
2013	0	0	70
2014	0	0	51
2015	0	0	54
2016	0	0	72
TOTAL	**16.25**	**34.99**	**609**

NOTES:

NR - Not recorded

1) Measurements given are estimated values based on the technicians interpretation and should not be viewed as accurate.

Western Refining Southwest, Inc. - Gallup Refinery
Stand Pipes Recovery Records

DATE	hydrocarbon recovered (gallons)	water pumped (gallons)	total fluid pumped (gallons)
9/3/2013*	682	3818	4500
9/3/2013*	367	4133	4500
9/4/2013	62	3938	4000
9/6/2013	62	3938	4000
9/9/2013	30	4470	4500
9/11/2013	30	4470	4500
9/13/2013	62	3938	4000
9/16/2013	135	5140	5275
9/18/2013	125	4111	4236
9/24/2013	58	4742	4800
9/26/2013	16	4220	4236
10/2/2013	29	4918	4947
10/8/2013	30	4569	4599
10/18/2013	109	5059	5168
10/28/2013	199	5379	5578
10/29/2013	63	4049	4112
11/12/2013	205	5275	5480
11/14/2013	78	5168	5246
11/18/2013	60	4539	4599
11/26/2013	80	5168	5248
12/3/2013	54	5169	5223
12/6/2013	57	4890	4947
12/12/2013	54	5169	5223
12/17/2013	58	4775	4833
12/24/2013	57	4890	4947
1/2/2014	88	4687	4775
1/6/2014	56	4947	5003
1/7/2014	32	3829	3861
1/9/2014	32	3448	3480
1/13/2014	29	4688	4717
1/16/2014	29	4688	4717
1/22/2014	29	4918	4947
1/29/2014	30	4449	4479
1/31/2014	61	4236	4297
2/4/2014	61	4236	4297
2/11/2014	60	4539	4599
2/18/2014	57	4890	4947
2/25/2014	57	4890	4947
2/28/2014	63	3924	3987
3/4/2014	31	4327	4358
3/7/2014	29	4804	4833
3/12/2014	29	4804	4833
3/14/2014	30	4449	4479
3/17/2014	32	3829	3861
3/19/2014	32	3448	3480
3/24/2014	32	3703	3735
3/28/2014	32	3703	3735
4/1/2014	32	3703	3735
4/3/2014	32	3320	3352
4/7/2014	15	4220	4235
4/15/2014	30	4205	4235
4/23/2014	31	4327	4358
5/1/2014	31	4327	4358
5/7/2014	31	4081	4112
5/14/2014	30	4205	4235

2013 Totals	hydrocarbon recovered	water pumped	total fluid pumped
	2,705	**111,045**	**113,750**

Western Refining Southwest, Inc. - Gallup Refinery
Stand Pipes Recovery Records

DATE	hydrocarbon recovered (gallons)	water pumped (gallons)	total fluid pumped (gallons)
5/22/2014	31	4081	4112
5/29/2014	31	3994	4025
6/6/2014	31	4081	4112
6/13/2014	32	3829	3861
6/20/2014	32	3955	3987
7/3/2014	31	4081	4112
7/10/2014	30	4205	4235
7/18/2014	30	4205	4235
7/28/2014	30	4205	4235
8/4/2014	30	4205	4235
8/14/2014	32	3955	3987
8/20/2014	31	4081	4112
8/29/2014	32	3955	3987
9/4/2014	32	3703	3735
9/11/2014	32	3576	3608
9/18/2014	32	3320	3352
9/26/2014	32	3448	3480
9/30/2014	32	3576	3608
10/7/2014	32	3320	3352
10/14/2014	32	3320	3352
10/21/2014	32	3955	3987
10/30/2014	32	3955	3987
11/7/2014	32	3320	3352
11/12/2014	32	3320	3352
11/18/2014	32	3064	3096
12/4/2014	32	3829	3861
12/9/2014	32	3955	3987
12/15/2014	31	4081	4112
12/24/2014	31	4081	4112
12/30/2014	32	3703	3735
1/8/2015	31	4081	4112
1/21/2015	31	4327	4358
1/29/2015	32	3448	3480
2/6/2015	32	3448	3480
2/11/2015	32	3320	3352
3/5/2015	29	4688	4717
3/12/2015	31	4081	4112
3/16/2015	31	4081	4112
3/25/2015	32	3703	3735
3/31/2015	32	3955	3987
4/13/2015	32	3829	3861
4/20/2015	32	3703	3735
4/27/2015	16	4096	4112
4/30/2015	16	4096	4112
5/11/2015	16	4220	4236
5/29/2015	16	3971	3987
6/8/2015	16	4096	4112
6/12/2015	16	4096	4112
6/16/2015	16	4220	4236
6/24/2015	15	4583	4599
7/2/2015	16	4096	4112
7/8/2015	16	3971	3987
7/15/2015	15	4343	4358
7/22/2015	16	4220	4236
7/30/2015	16	3845	3861
8/6/2015	16	4220	4236
8/12/2015	16	3971	3987
8/17/2015	16	4220	4236
8/21/2015	16	3845	3861
8/26/2015	16	4220	4236

2014 Totals	hydrocarbon recovered	water pumped	total fluid pumped
	2,108	**242,182**	**244,290**

Western Refining Southwest, Inc. - Gallup Refinery
Stand Pipes Recovery Records

DATE	hydrocarbon recovered (gallons)	water pumped (gallons)	total fluid pumped (gallons)
9/2/2015	15	4464	4479
9/11/2015	14	5154	5168
9/25/2015	15	4464	4479
10/2/2015	15	4583	4599
10/8/2015	16	4220	4236
10/23/2015	16	4817	4833
10/29/2015	16	4220	4236
11/11/2015	14	4933	4947
11/20/2015	24	5554	5578
11/30/2015	43	4790	4833
12/10/2015	56	5323	5379
12/17/2015	56	4891	4947
12/24/2015	54	5114	5168
12/31/2015	54	5114	5168
1/7/2016	56	5323	5379
1/19/2016	51	5429	5480
1/26/2016	56	5003	5059
2/11/2016	54	5221	5275
2/17/2016	56	4891	4947
2/25/2016	56	5323	5379
3/4/2016	47	5625	5672
3/11/2016	49	5529	5578
3/17/2016	59	4658	4717
3/24/2016	45	5717	5762
3/31/2016	49	5529	5578
4/6/2016	38	5966	6004
4/15/2016	40	5888	5928
4/20/2016	56	5323	5379
4/27/2016	43	5804	5847
5/5/2016	47	5625	5672
5/9/2016	60	4419	4479
5/10/2016	45	5717	5762
5/17/2016	40	5888	5928
5/19/2016	51	5429	5480
5/24/2016	38	5966	6004
5/25/2016	49	5529	5578
5/27/2016	43	5804	5847
6/1/2016	45	5717	5762
6/3/2016	51	5429	5480
6/7/2016	35	6039	6074
6/9/2016	47	5625	5672
6/13/2016	40	5888	5928
6/16/2016	38	5966	6004
6/20/2016	40	5888	5928
6/23/2016	49	5529	5578
6/27/2016	47	5625	5672
6/30/2016	60	4419	4479
7/6/2016	232	4768	5000
7/8/2016	109	3891	4000
7/11/2016	232	4768	5000
7/19/2016	300	5300	5600
7/21/2016	109	3891	4000
7/25/2016	232	4768	5000
7/28/2016	109	3891	4000
8/2/2016	232	4768	5000
8/9/2016	300	5300	5600
8/15/2016	232	4768	5000
8/18/2016	109	3891	4000
8/23/2016	232	4768	5000
8/25/2016	109	3891	4000

2015 Totals	hydrocarbon recovered	water pumped	total fluid pumped
	1,071	**188,634**	**189,707**

Western Refining Southwest, Inc. - Gallup Refinery
Stand Pipes Recovery Records

DATE	hydrocarbon recovered (gallons)	water pumped (gallons)	total fluid pumped (gallons)
8/29/2016	232	4768	5000
9/1/2016	109	3891	4000
9/7/2016	232	4768	5000
9/9/2016	109	4187	4296
9/12/2016	109	3891	4000
9/15/2016	109	3891	4000
9/19/2016	232	4768	5000
9/27/2016	300	5300	5600
9/29/2016	109	3891	4000
10/5/2016	280	5180	5460
10/7/2016	280	5180	5460
10/10/2016	280	5180	5460
10/20/2016	109	3891	4000
10/26/2016	50	2450	2500
10/28/2016	109	3891	4000
11/1/2016	109	3891	4000
11/3/2016	109	3891	4000
11/8/2016	109	3891	4000
11/10/2016	109	3891	4000
11/14/2016	109	3891	4000
11/23/2016	109	3891	4000
12/6/2016	109	3891	4000
12/8/2016	109	3891	4000
12/13/2016	303	4697	5000
12/15/2016	109	3891	4000
12/20/2016	109	3891	4000
12/27/2016	400	4600	5000
12/29/2016	109	3891	4000

2016 Totals	hydrocarbon recovered	water pumped	total fluid pumped
	8,668	**357,619**	**366,287**

APPENDIX B

FIELD INSPECTION LOGS

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION	
NAPIS-1	
GAUGE DATE	3.1.16
GAUGE TIME	1030
DTB (feet) Depth to Bottom	13.74
DEDICATED PUMP	—
DTW (feet) Depth to Water	6.65
DTB - DTW	7.09
Capacity per foot	0.163
2 Well Volumes	2.31 → 2.5
PURGE DATE	3.1.16
PURGE TIME	1050
SAMPLE DAY	3.1.16
SAMPLE TIME	1100
PUMP DEPTH	
DTW (feet) at end of Purging	

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	10:44	6.37	10.59	66.82	59.95	65.95	162.6	64.5
(2)	1047	6.93	9.51	70.11	64.26	70.56	66.7	41.8
(3)	1050	6.89	9.94	71.06	64.81	71.35	28.9	43.8
(4)								

WEATHER CONDITIONS

CLEAR, CALM, 59°

WATER APPEARANCE

CLEAR

SAMPLE LOG

6 VOA – 250mL AMBER

125 HNO_3 500mL NEAT

125 H_2SO_4

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature:

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION	
NAPIS-2	
GAUGE DATE	3.1.16
GAUGE TIME	1127
DTB (feet) Depth to Bottom	13.80
DEDICATED PUMP	—
DTW (feet) Depth to Water	7.65
DTB - DTW	6.15
Capacity per foot	0.163
2 Well Volumes	2.0
PURGE DATE	3.1.16
PURGE TIME	1137
SAMPLE DAY	3.1.16
SAMPLE TIME	1200
PUMP DEPTH	—
DTW (feet) at end of Purging	—

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1133	6.65	20.26	109.1	78.09	90.65	28.9	-121.6
(2)	1135	6.80	20.11	112.2	80.44	93.96	21.3	-119.1
(3)	1137	6.83	20.74	115.0	81.37	95.32	17.5	-120.3
(4)								

WEATHER CONDITIONS

CLEAR, LIGHT WIND 59°

WATER APPEARANCE

CLEAR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature:

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
NAPIS-3			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3.1.16	(1)	1214	7.80	20.31	75.98	54.24	58.76	46.7	-8.0
GAUGE TIME	1206	(2)	1220	7.89	20.93	76.61	53.99	58.44	20.8	6.9
DTB (feet) Depth to Bottom	30.68	(3)	1227	7.79	19.75	181.5	31.9	176.25	20.7	21.9
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	8.55									
DTB - DTW	22.13									
Capacity per foot	0.163									
2 Well Volumes	7.21 → 7.25									
PURGE DATE	3.1.16									
PURGE TIME	1227									
SAMPLE DAY	3.1.16									
SAMPLE TIME	1245									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, LIGHT WIND, 62°

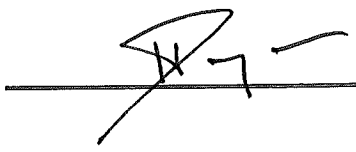
WATER APPEARANCE

CLEAR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
OAPIS-1			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3.1.16	(1)	1337	6.65	15.20	285.5	288	404.52	27.8	-104
GAUGE TIME	1330	(2)	1341	6.66	15.04	285.5	229	407.26	10.8	-95.6
DTB (feet) Depth to Bottom	28.55	(3)	1345	6.68	15.20	287.2	229	407.70	6.4	-93.5
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	11.86									
DTB - DTW	16.69									
Capacity per foot	0.163									
2 Well Volumes	~~3.77~~ 5.44									
PURGE DATE	3.1.16									
PURGE TIME	1345									
SAMPLE DAY	3.1.16									
SAMPLE TIME	1425									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR WEST WIND

WATER APPEARANCE

AMBER ODOR

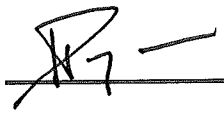
SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

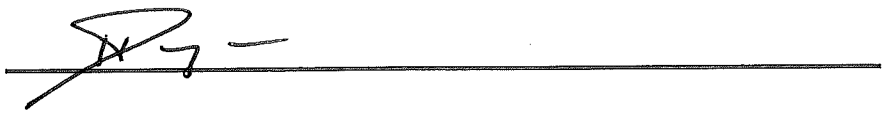
1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
~~POND 9~~ KA-3			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3.3.16	(1)	0914	6.72	20.19	74.41	52.96	57.09	18.0	11.2
GAUGE TIME	0856	(2)	0918	6.87	23.26	80.08	53.82	58.22	9.4	-15.0
DTB (feet) Depth to Bottom	23.38	(3)	0922	6.92	23.46	80.46		58.31	15.8	-13.4
DEDICATED PUMP	—	(4)				53.89↗				
DTW (feet) Depth to Water	7.68	WEATHER CONDITIONS								
DTB - DTW	15.70	CLEAR, CALM, 49°								
Capacity per foot	0.163									
2 Well Volumes	5.19									
PURGE DATE	3.3.16	WATER APPEARANCE								
PURGE TIME	0922	CLEAR								
SAMPLE DAY	3.3.16									
SAMPLE TIME	0940									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

API

SAMPLE ID/LOCATION		TEST PARAMATERS								
EAST LDU			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3.1.16	(1)								
GAUGE TIME	1319	(2)								
DTB (feet) Depth to Bottom	12.70	(3)								
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	5.02									
DTB - DTW										
Capacity per foot	—									
2 Well Volumes	—									
PURGE DATE	—									
PURGE TIME	—									
SAMPLE DAY	3.1.16									
SAMPLE TIME	1630									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, WNW WIND, 64°

WATER APPEARANCE

GRAYISH GREEN, ODOR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature:

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

API

SAMPLE ID/LOCATION		TEST PARAMATERS								
WEST LDU			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3.1.16	(1)								
GAUGE TIME		(2)								
DTB (feet) Depth to Bottom	12.60	(3)								
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	5.58									
DTB - DTW	—									
Capacity per foot	—									
2 Well Volumes	—									
PURGE DATE	—									
PURGE TIME	—									
SAMPLE DAY	3.1.16									
SAMPLE TIME	1650									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, WNW WIND, 64°

WATER APPEARANCE

AMBER ODOR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature:

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

API

SAMPLE ID/LOCATION		TEST PARAMATERS								
OIL SUMP LDU			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3-1-16	(1)								
GAUGE TIME	1316	(2)								
DTB (feet) Depth to Bottom		(3)								
DEDICATED PUMP		(4)								
DTW (feet) Depth to Water		WEATHER CONDITIONS								
DTB - DTW										
Capacity per foot										
2 Well Volumes										
PURGE DATE		WATER APPEARANCE								
PURGE TIME										
SAMPLE DAY	NOT SAMPLED									
SAMPLE TIME	"	"								
PUMP DEPTH										
DTW (feet) at end of Purging										

SAMPLE LOG

DT HC 4.88'

DT W 5.88'

TD 6.55'

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature: _____

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
GWM-1			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3.1.16	(1)								
GAUGE TIME	1440	(2)								
DTB (feet) Depth to Bottom	26.44	(3)								
~~DEDICATED PUMP~~	22.84	(4)								
DTW (feet) Depth to Water	22.88	DTHC	WEATHER CONDITIONS							
DTB - DTW	-									
Capacity per foot	—									
2 Well Volumes	—									
PURGE DATE	—		WATER APPEARANCE							
PURGE TIME	—									
SAMPLE DAY	NA									
SAMPLE TIME	NA									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

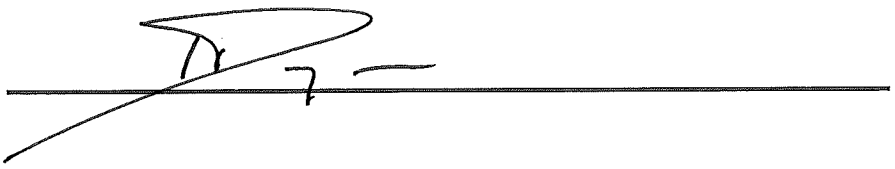
SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
GWM-2			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3.1.16	(1)								
GAUGE TIME	1435	(2)								
DTB (feet) Depth to Bottom	19.05	(3)								
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	NA	WEATHER CONDITIONS								
DTB - DTW	—									
Capacity per foot	—									
2 Well Volumes	—									
PURGE DATE	—	WATER APPEARANCE								
PURGE TIME	—									
SAMPLE DAY	NA									
SAMPLE TIME	NA									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature: _____

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2015 ~~X~~ 16

SAMPLE ID/LOCATION		TEST PARAMATERS								
GWM-3			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3.1.16	(1)								
GAUGE TIME	1430	(2)								
DTB (feet) Depth to Bottom	17.80	(3)								
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	NA	WEATHER CONDITIONS								
DTB - DTW	—									
Capacity per foot	—									
2 Well Volumes	—									
PURGE DATE	—									
PURGE TIME	—	WATER APPEARANCE								
SAMPLE DAY	NA									
SAMPLE TIME	NA									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

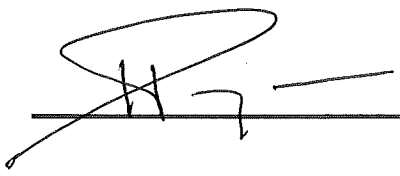
SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
STP1-NW			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3.1.16	(1)								
GAUGE TIME	1548	(2)								
DTB (feet) Depth to Bottom	49.70	(3)								
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	20.55									
DTB - DTW	29.15									
Capacity per foot	0.163									
2 Well Volumes	9.5									
PURGE DATE	3.2.16									
PURGE TIME	0900									
SAMPLE DAY	3.2.16									
SAMPLE TIME	0920									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, CALM, 62°

WATER APPEARANCE

CLEAR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature:

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
OW-1			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3.3.16	(1)	1257	8.58	14.99	57.91	46.45	48.99	16.1	10.9
GAUGE TIME	1255	(2)	1325	* PUMP	DRY @ 70	GALLONS	*			
DTB (feet) Depth to Bottom	94.55	(3)								
DEDICATED PUMP		(4)								
DTW (feet) Depth to Water	0.00	WEATHER CONDITIONS								
DTB - DTW	94.55	CLEAR, LIGHT WIND, 66°								
Capacity per foot	0.74									
2 Well Volumes	140									
PURGE DATE	3.3.16	WATER APPEARANCE								
PURGE TIME	1325	CLEAR								
SAMPLE DAY	3.3.16									
SAMPLE TIME	1405									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature:

2.5 GALLONS/MIN

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
OW-10			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3/3/16	(1)	1059	7.12	14.29	83.57	68.05	76.10	99.2	42.9
GAUGE TIME	1045	(2)	1117	7.04	13.76	240.7	199.0	323.13	21.3	9.1
DTB (feet) Depth to Bottom	60.63	(3)	1134	7.22	13.50	213.2	176.4	268.12	60.3	18.3
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	1.42									
DTB - DTW	~~[illegible]~~	59.21								
Capacity per foot	0.74									
2 Well Volumes	87.63									
PURGE DATE	3/3/16									
PURGE TIME	1134									
SAMPLE DAY	3/3/16									
SAMPLE TIME	1140									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, CALM, 64°

WATER APPEARANCE

CLEAR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature: [signature]

2.5 GALLONS/MIN.

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
OW-13			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3.4.16	(1)	1010	7.63	14.41	52.64	42.85	44.69	16.8	-33.1
GAUGE TIME	0935	(2)	1033	7.83	13.15	50.17	42.11	43.72	19.8	2.6
DTB (feet) Depth to Bottom	99.15	(3)	1056	7.96	13.18	49.03	41.17	42.66	99.2	-3.2
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	21.43									
DTB - DTW	77.72									
Capacity per foot	0.74									
2 Well Volumes	115									
PURGE DATE	3.4.16									
PURGE TIME	1056									
SAMPLE DAY	3.4.16									
SAMPLE TIME	1100									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, LIGHT WIND, 58°

WATER APPEARANCE

CLEAR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature: [signature]

1.5/MIN / 5 GALLONS

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
OW-14 3.4.16			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	~~MRET-14~~	(1)	1145	6.66	15.00	89.81	72.21	82.03	17.0	-124.0
GAUGE TIME	1125	(2)	1152	6.77	13.96	87.86	72.40	82.13	13.1	-124.8
DTB (feet) Depth to Bottom	46.52	(3)	1209	6.80	14.56	92.17	73.00	83.11	8.0	-126.2
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	23.20									
DTB - DTW	23.32									
Capacity per foot	0.74									
2 Well Volumes	35									
PURGE DATE	3.4.16									
PURGE TIME	1209									
SAMPLE DAY	3.4.16									
SAMPLE TIME	1220									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, CALM, 62°

WATER APPEARANCE

CLEAR, ODOR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature:

5 GALLONS / 2 MIN
2.5 GALLONS / MIN.

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
OW-29			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3.4.16	(1)	1245	7.02	13.95	75.73	62.30 ~~63.~~	68.71	50.8	-116.1
GAUGE TIME	1235	(2)	1255	7.12	12.94	75.06	75.08	63.35	12.7	-92.9
DTB (feet) Depth to Bottom	51.08	(3)	1305	7.10	12.93	75.63	63.74	70.29	16.0	-78.7
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	18.15									
DTB - DTW	32.93									
Capacity per foot	0.74									
2 Well Volumes	48.7									
PURGE DATE	3.4.16									
PURGE TIME	1305									
SAMPLE DAY	3.4.16									
SAMPLE TIME	1315									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR MODERATE WIND, 63°

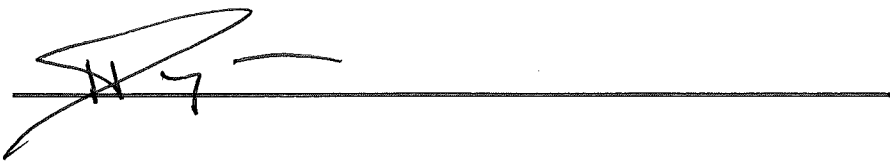
WATER APPEARANCE

CLEAR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: 

24

2.5 GALLONS / MIN

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
OW-30			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3.8.16	(1)	0840	6.12	11.66	74.09	64.63	71.44	104.2	-26.9
GAUGE TIME	0834	(2)	0905	6.94	12.34	76.81	65.85	73.14	51.0	-41.5
DTB (feet) Depth to Bottom	49.90	(3)	0930	6.92	12.66	77.84	66.20	73.66	37.6	43.6
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	22.55									
DTB - DTW	27.35									
Capacity per foot	0.74									
2 Well Volumes	4.0									
PURGE DATE	3.8.16									
PURGE TIME	0930									
SAMPLE DAY	3.8.16									
SAMPLE TIME	0945									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, CALM, 32°

WATER APPEARANCE

CLEAR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature:

WESTERN REFINING - GALLUP REFINERY

_____ QTR 2015

SAMPLE ID/LOCATION		TEST PARAMATERS								
STP1-SW			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3.8.16	(1)								
GAUGE TIME	1300	(2)								
DTB (feet) Depth to Bottom	29.15	(3)								
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	DRY	WEATHER CONDITIONS								
DTB - DTW										
Capacity per foot										
2 Well Volumes										
PURGE DATE		WATER APPEARANCE								
PURGE TIME										
SAMPLE DAY										
SAMPLE TIME										
PUMP DEPTH										
DTW (feet) at end of Purging										

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature:

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
RW-1			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3.4.16	(1)								
GAUGE TIME	0805	(2)								
DTB (feet) Depth to Bottom		(3)								
DEDICATED PUMP		(4)								
DTW (feet) Depth to Water		WEATHER CONDITIONS								
DTB - DTW		☒ CLEAR, CALM, 35°								
Capacity per foot										
2 Well Volumes										
PURGE DATE		WATER APPEARANCE								
PURGE TIME		NA - HC PRESENT								
SAMPLE DAY										
SAMPLE TIME										
PUMP DEPTH										
DTW (feet) at end of Purging										

SAMPLE LOG

DTP - 28.05', BTOC

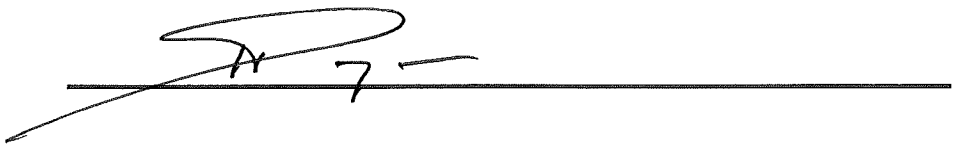
DTW - 30.55', BTOC

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

TK 576

SAMPLE ID/LOCATION		TEST PARAMATERS								
RW-2			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3.4.16	(1)								
GAUGE TIME	0816	(2)								
DTB (feet) Depth to Bottom	40.10	(3)								
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	22.45									
DTB - DTW	17.65									
Capacity per foot	0.74									
2 Well Volumes	26 ✓									
PURGE DATE	3.7.16									
PURGE TIME	1120									
SAMPLE DAY	3.7.16									
SAMPLE TIME	1145									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, WEST WIND, 32°

WATER APPEARANCE

CLEAR ⇒ GRAY
ODOR SHEEN

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature:

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

TKS 344/337

SAMPLE ID/LOCATION		TEST PARAMATERS								
RW-5			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3.4.16	(1)								
GAUGE TIME	0849	(2)								
DTB (feet) Depth to Bottom	41.70	(3)								
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	28.22									
DTB - DTW	13.48									
Capacity per foot	0.74									
2 Well Volumes	19.95									
PURGE DATE	3.7.16									
PURGE TIME	0855									
SAMPLE DAY	3.7.16									
SAMPLE TIME	0910									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, WEST WIND, 30°

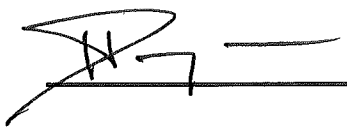
WATER APPEARANCE

CLEAR, ODOR, SHEEN

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

TKS 344 / 337

SAMPLE ID/LOCATION		TEST PARAMATERS								
RW-6			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3.4.16	(1)								
GAUGE TIME	0843	(2)								
DTB (feet) Depth to Bottom	41.15	(3)								
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	28.25	WEATHER CONDITIONS								
DTB - DTW	12.90	CLEAR, WINDY, 32°								
Capacity per foot	0.74									
2 Well Volumes	19.09									
PURGE DATE	3.7.16									
PURGE TIME	0940 → 14 GALLONS	WATER APPEARANCE								
SAMPLE DAY	3.7.16	DRY								
SAMPLE TIME	1010									
PUMP DEPTH	—	CLEAR, ODOR, SHEEN								
DTW (feet) at end of Purging	—									

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature:

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-1			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.24.16	(1)	0910	6.73	7.98	99.24	95.59	113.49	52.6	-83.6
GAUGE TIME	0850	(2)	0918	6.63	8.39	100.5	95.66	113.83	50.3	-92.2
DTB (feet) Depth to Bottom	17.44	(3)	0932	6.75	9.28	103.5	96.24	115.07	153.1	-99.7
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	5.84									
DTB - DTW	11.60									
Capacity per foot	0.74									
2 Well Volumes	17.16 → 17.25									
PURGE DATE	2.24.16									
PURGE TIME	0932									
SAMPLE DAY	2.24.16									
SAMPLE TIME	1010									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

PARTLY CLOUDY, NE WIND, 32°

WATER APPEARANCE

CLEAR, ODOR

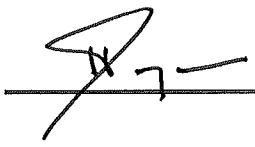
SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-2			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.24.16	(1)	1037	7.22	8.34	81.13	77.36	87.64	100.6	-13.9
GAUGE TIME	1026	(2)	1044	7.32	8.99	81.57	76.35	86.46	60.4	-72.4
DTB (feet) Depth to Bottom	20.38	(3)	1056	7.36	10.42	122.8	110.9	138.50	111.4	-79.7
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	7.22									
DTB - DTW	13.16									
Capacity per foot	0.74									
2 Well Volumes	19.48 → 20									
PURGE DATE	2.24.16									
PURGE TIME	1056									
SAMPLE DAY	2.24.16									
SAMPLE TIME	1135									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, 36°, LIGHT BREEZE

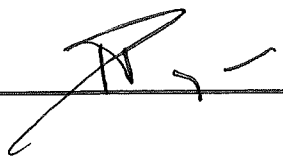
WATER APPEARANCE

CLEAR, ODOR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-04			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.29.16	(1)	0808	6.30	12.07	90.10	77.80	89.27	22.9	-110.8
GAUGE TIME	0756	(2)	0816	6.56	12.70	95.30	81.03	93.93	20.4	-109.7
DTB (feet) Depth to Bottom	22.20	(3)	BAILED DRY @ 15 GALLONS @ 0828							
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	10.68	WEATHER CONDITIONS: CLEAR, CALM, 34°								
DTB - DTW	11.52									
Capacity per foot	0.74									
2 Well Volumes	17.05									
PURGE DATE	2.29.16									
PURGE TIME	0828	WATER APPEARANCE: CLEAR, ODOR ⇒ CLOUDY SHEEN								
SAMPLE DAY	2.29.16									
SAMPLE TIME	0930									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

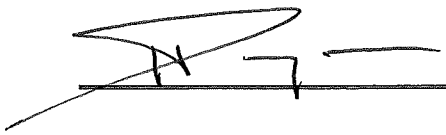
SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-9			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.29.16	(1)	1245	6.51	12.39	71.51	61.15	67.08	88.5	-85.2
GAUGE TIME	1235	(2)	1250	6.61	11.87	73.26	63.54	70.03	36.2	-99.3
DTB (feet) Depth to Bottom	22.70	(3)	1258	6.75	12.07	74.03	63.94	70.61	13.4	-112.6
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	14.15									
DTB - DTW	8.55									
Capacity per foot	0.74									
2 Well Volumes	12.165 → 12.75									
PURGE DATE	2.29.16									
PURGE TIME	1258									
SAMPLE DAY	2.29.16									
SAMPLE TIME	1330									
PUMP DEPTH										
DTW (feet) at end of Purging										

WEATHER CONDITIONS

CLOUDY, WEST WIND, 64°

WATER APPEARANCE

CLEAR -> GRAY, SHEEN, ODOR

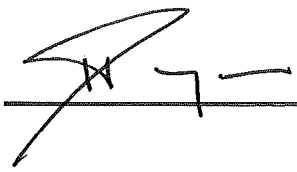
SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-10			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.29.16	(1)	1126	6.07	12.89	183.7	155.3	221.53	33.6	-59.6
GAUGE TIME	1115	(2)		BAILED DRY @		5 GALLONS		@ 1130		
DTB (feet) Depth to Bottom	16.00	(3)								
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	8.60									
DTB - DTW	~~7.40~~									
Capacity per foot	~~0.74~~									
2 Well Volumes	10.95 → 11									
PURGE DATE	2.29.16									
PURGE TIME	1130									
SAMPLE DAY	2.29.16									
SAMPLE TIME	1700									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, WEST WIND, 62°

WATER APPEARANCE

CLEAR → ODOR

GRAY → SHEEN

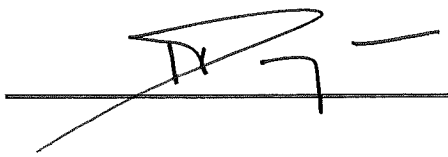
SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-11			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.29.16	(1)	1012	6.33	12.66	180.4	153.5	217.8	114.1	-118.2
GAUGE TIME	1000	(2)	1017	6.73	13.18	177.5	148.4	206.8	35.0	-123.8
DTB (feet) Depth to Bottom	18.38	(3)	1025	6.77	13.46	245.2	204.5	337.39	71.7	-116.1
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	8.80									
DTB - DTW	9.58									
Capacity per foot	0.74									
2 Well Volumes	14.17 → 14.5									
PURGE DATE	2.29.16									
PURGE TIME	1025									
SAMPLE DAY	2.29.16									
SAMPLE TIME	1050									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, WEST WIND, 46°

WATER APPEARANCE

CLEAR → DARK GRAY

ODOR:

SAMPLE LOG

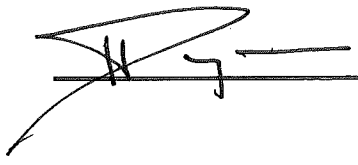
INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature:



WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-16			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.29.16	(1)	1356	6.66	15.57	146.5	116.1	149.04	25.7	-111.7
GAUGE TIME	1348	(2)	1359	6.60	15.02	144.4	116.0	148.87	14.9	-1135
DTB (feet) Depth to Bottom	14.09	(3)	1403	6.61	15.07	145.6	116.8	150.12	10.6	-112.3
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	9.90	WEATHER CONDITIONS								
DTB - DTW	4.19	CLEAR, WEST WIND, 64°								
Capacity per foot	0.163									
2 Well Volumes	1.37 → 1.5									
PURGE DATE	2.29.16	WATER APPEARANCE								
PURGE TIME	1403	CLEAR								
SAMPLE DAY	2.29.16									
SAMPLE TIME	1425									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

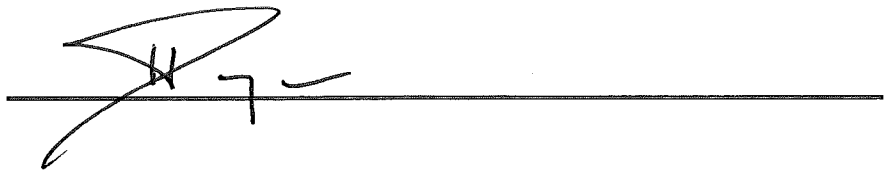
SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-17			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.25.16	(1)	1518	6.71	14.27	65.30	53.38	57.44	35.8	-76.7
GAUGE TIME	1508	(2)	1522	6.78	14.29	65.81	53.76	57.91	15.2	-73.9
DTB (feet) Depth to Bottom	24.60	(3)	DRY @ 3 GALLONS @ 1525							
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	11.82									
DTB - DTW	12.78									
Capacity per foot	0.163									
2 Well Volumes	4.16 → 4.5									
PURGE DATE	2.25.16									
PURGE TIME	1525									
SAMPLE DAY	2.26.16									
SAMPLE TIME	0930									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, CALM, 57°

WATER APPEARANCE

CLEAR TO MUDDY @ BOTTOM

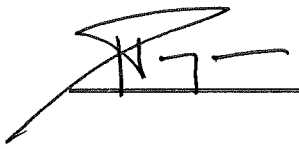
SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-18			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.26.16	(1)	1055	6.73	12.92	63.83	53.81	57.79	25.2	-117.8
GAUGE TIME	10:51	(2)	1103	6.93	15.20	68.04	54.38	58.75	~~23~~ 10.8	-123.6
DTB (feet) Depth to Bottom	25.5	(3)			~~DRAW~~	DRY @ 3 GALLONS @ 1105				
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	8.34									
DTB - DTW	17.16									
Capacity per foot	0.163									
2 Well Volumes	~~5~~ 5.60									
PURGE DATE	2.26.16									
PURGE TIME	1105									
SAMPLE DAY	2.26.16									
SAMPLE TIME	1330									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, CALM, 50°

WATER APPEARANCE

CLEAR ⇒ BROWN, ODOR

SAMPLE LOG

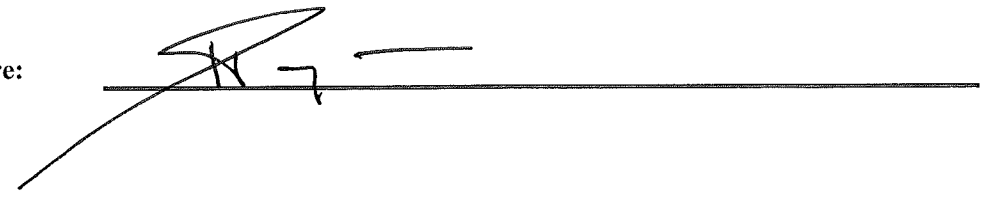
INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature:



WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-19			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.25.16	(1)	1402	6.48	13.63	80.20	66.43	74.07	98.6	-112.1
GAUGE TIME	1352	(2)	1404	6.62	12.88	79.26	66.91	74.60	15.8	-107.7
DTB (feet) Depth to Bottom	17.29	(3)	1406	6.63	12.64	78.80	66.99	74.68	9.2	-104.3
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	12.62									
DTB - DTW	4.67									
Capacity per foot	0.163									
2 Well Volumes	1.52									
PURGE DATE	2.25.16									
PURGE TIME	1406									
SAMPLE DAY	2.25.16									
SAMPLE TIME	1440									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR CALM 57°

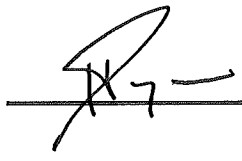
WATER APPEARANCE

CLEAR, ODOR
↳ BROWN

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-20			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.29.16	(1)	1440	6.37	13.50	60.31	50.26	53.52	24.2	+104.7
GAUGE TIME	1436	(2)	1443	6.59	13.36	61.82	51.98	52.61	20.1	-96.9
DTB (feet) Depth to Bottom	9.56	(3)		BAILED DRY @ 1445 @ 2 GALLONS						
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	7.81									
DTB - DTW	1.75									
Capacity per foot	0.74									
2 Well Volumes	2.59									
PURGE DATE	2.29.16									
PURGE TIME	1445									
SAMPLE DAY	3.1.16									
SAMPLE TIME	0905									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, WEST WIND — 2.29.15

CLEAR, CALM, 40° → 3.1.15

WATER APPEARANCE

CLEAR → BLACK

ODOR

SHEEN

SAMPLE LOG

6 VOA, ONE 1-LITER AMBER

1 250 ML AMBER

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature:

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-21			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.29.16	(1)	1512	6.42	11.92	41.09	35.56	36.10	63.0	-89.4
GAUGE TIME	1505	(2)		BAILED DRY @ 1516 @ 1 GALLON						
DTB (feet) Depth to Bottom	8.82	(3)								
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	7.24									
DTB - DTW	1.58									
Capacity per foot	0.74									
2 Well Volumes	2.33									
PURGE DATE	2.29.16									
PURGE TIME	1516									
SAMPLE DAY	3.1.16									
SAMPLE TIME	0840									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, WEST WIND - 2.29.15

CLEAR, CALM, 40° → 3.1.15

WATER APPEARANCE

B. CLEAR → BLACK

ODOR, SHEEN

SAMPLE LOG

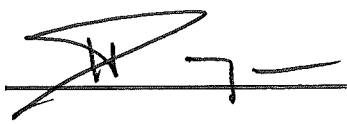
6 VOA, 1-1L AMBER, 1-250ML AMBER

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-22			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.25.16	(1)	1024	6.80	13.21	67.77	56.83	61.64	30.1	-105.4
GAUGE TIME	1010	(2)	1027	6.79	12.86	66.91	56.62	61.35	18.8	-101.8
DTB (feet) Depth to Bottom	35.24	(3)	1030	6.87	12.64	69.27	58.88	64.14	24.4	-100.7
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	26.13									
DTB - DTW	9.11									
Capacity per foot	0.163									
2 Well Volumes	2.97 → 3.0									
PURGE DATE	2.25.16									
PURGE TIME	1030									
SAMPLE DAY	2.25.16									
SAMPLE TIME	1055									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, LIGHT WIND, 39°

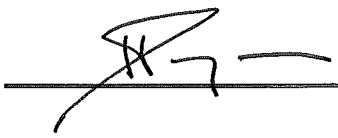
WATER APPEARANCE

CLEAR → BROWN, ODOR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-23			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.25.16	(1)	0906	7.14	10.91	84.19	74.85	84.91	140.1	-103.7
GAUGE TIME	0858	(2)	0909	6.94	10.96	84.91	75.40	85.68	25.6	-94.1
DTB (feet) Depth to Bottom	20.37	(3)	0912	7.04	11.14	86.66	76.59	87.33	17.7	-93.9
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	14.67									
DTB - DTW	5.67									
Capacity per foot	0.163									
2 Well Volumes	1.85 → 2									
PURGE DATE	2.25.16									
PURGE TIME	0912									
SAMPLE DAY	2.25.16									
SAMPLE TIME	0940									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, CALM, 34°

WATER APPEARANCE

CLEAR, ODOR, SHEEN

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature:

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-24			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.22.16	(1)	1225	5.42	12.81	70.16	59.16	64.49	65.5	54.6
GAUGE TIME	1202	(2)	1228	6.15	13.09	1.521	1.327	0.96	67.8	-9.1
DTB (feet) Depth to Bottom	30.45	(3)	1234	6.63	12.81	1.262	0.899	0.78	67.4	-14.1
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	21.34									
DTB - DTW	9.11									
Capacity per foot	0.163									
2 Well Volumes	2.97 → 3.00									
PURGE DATE	2.2.16									
PURGE TIME	1234									
SAMPLE DAY	2.2.16									
SAMPLE TIME	1310									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

PARTLY CLOUDY, LIGHT WEST WIND
54°F

WATER APPEARANCE

CLEAR TO REDDISH BROWN
NO ODOR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature:

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-25			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.23.16	(1)	1157	6.83	8.32	111.9	106.8	130.81	62.3	12.2
GAUGE TIME	1150	(2)	1201	6.76	8.56	121.4	114.8	143.71	26.5	6.8
DTB (feet) Depth to Bottom	19.40	(3)	1205	6.74	8.74	120.7	113.8	142.37	19.3	5
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	10.83									
DTB - DTW	8.57									
Capacity per foot	0.163									
2 Well Volumes	2.79 → 3									
PURGE DATE	2.23.16									
PURGE TIME	1205									
SAMPLE DAY	2.23.16									
SAMPLE TIME	1225									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLOUDY, NORTH WIND, SNOW, 37°

WATER APPEARANCE

CLEAR -> LT. PINK, ODOR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature:

WESTERN REFINING - GALLUP REFINERY

1 QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-26			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.22.16	(1)	1359	6.93	9.20	116.2	107.9	132.92	24.6	33.7
GAUGE TIME	1350	(2)	1403	6.98	7.59	95.09	92.54	108.70	86.7	-7.7
DTB (feet) Depth to Bottom	17.16	(3)	1407	6.91	8.29	141.4	134.8	178.40	35.0	12.1
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	8.17									
DTB - DTW	8.99									
Capacity per foot	0.163									
2 Well Volumes	2.93									
PURGE DATE	2.22.16									
PURGE TIME	1407									
SAMPLE DAY	2.22.16									
SAMPLE TIME	1435									
PUMP DEPTH										
DTW (feet) at end of Purging										

WEATHER CONDITIONS

MOD NORTH WIND PARTLY CLOUDY 55°

WATER APPEARANCE

CLEAR -> BROWN / CLOUDY

NO ODOR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature:

WESTERN REFINING - GALLUP REFINERY

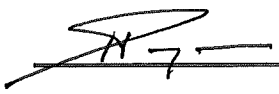
1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-27			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.22.16	(1)	1559	6.63	8.41	305.5	289.8	602.86	118.1	59.1
GAUGE TIME	1550	(2)	1602	6.80	7.68	307.5	297.6	627.28	40.4	58.6
DTB (feet) Depth to Bottom	14.71	(3)	1606	6.76	8.33	313.4	298.4	632.81	29.6	61.4
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	7.20	WEATHER CONDITIONS: CLOUDY, NORTH WIND, 50°, TRACE SNOW								
DTB - DTW	7.51									
Capacity per foot	0.163									
2 Well Volumes	2.49 → 2.5									
PURGE DATE	2.22.16	WATER APPEARANCE: CLEAR								
PURGE TIME	1606									
SAMPLE DAY	2.22.16									
SAMPLE TIME	~~1635~~ 1635									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

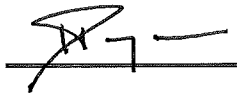
1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-28			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.23.16	(1)	0856	7.14	10.16	103.9	94.29	112.51	68.4	51.1
GAUGE TIME	0850	(2)	0901	7.22	10.76	104.3	92.20	109.55	48.6	54.4
DTB (feet) Depth to Bottom	16.14	(3)	0905	7.23	12.85	112.5	95.18	114.71	37.1	55.3
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	5.32	WEATHER CONDITIONS								
DTB - DTW	10.82	CLOUDY, LIGHT WIND, 340								
Capacity per foot	0.163									
2 Well Volumes	3.52 → 3.75									
PURGE DATE	2.23.16									
PURGE TIME	0905	WATER APPEARANCE								
SAMPLE DAY	2.23.16	CLEAR								
SAMPLE TIME	0935									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF - 29			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.23.16	(1)	1022	7.49	4.67	69.31	73.64	81.18	233.2	23.7
GAUGE TIME	1015	(2)	1027	7.10	9.13	89.24	82.82	95.51	29.7	13.0
DTB (feet) Depth to Bottom	22.80	(3)	1035	7.20	9.59	90.68	8207	94.71	21.6	6.5
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	1.92									
DTB - DTW	20.88									
Capacity per foot	0.163									
2 Well Volumes	6.8 → 7									
PURGE DATE	2.23.16									
PURGE TIME	1035									
SAMPLE DAY	2.23.16									
SAMPLE TIME	1100									
PUMP DEPTH	~									
DTW (feet) at end of Purging	~									

WEATHER CONDITIONS

34°, CLOUDY LIGHT BREEZE, SNOW

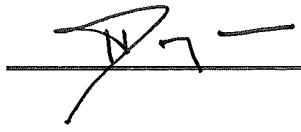
WATER APPEARANCE

CLEAR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-30			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.23.16	(1)	1527	6.97	11.70	153.2	133.7	178.89	122.8	52.0
GAUGE TIME	1520	(2)	1532	7.06	12.77	195.9	166.1	244.48	39.4	55.2
DTB (feet) Depth to Bottom	23.18	(3)	1536	7.05	13.02	201.3	169.6	252.42	32.3	54.7
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	14.40	WEATHER CONDITIONS: CLOUDY, SNOW, 39°								
DTB - DTW	8.78									
Capacity per foot	0.163									
2 Well Volumes	2.86 → 3.0									
PURGE DATE	2.23.16	WATER APPEARANCE: CLEAR								
PURGE TIME	1536									
SAMPLE DAY	2.23.16									
SAMPLE TIME	1545									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

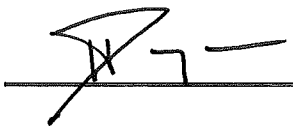
SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-31			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.23.16	(1)	1309	6.52	8.00	123.6	118.7	150.2	44.08	55
GAUGE TIME	1250	(2)	1315	6.86	7.91	124.2	119.7	151.56	36.80	43.7
DTB (feet) Depth to Bottom	22.72	(3)	1326	6.86	8.01	122.7	118.2	149.70	26.4	41.1
DEDICATED PUMP		(4)								
DTW (feet) Depth to Water	7.95									
DTB - DTW	14.77									
Capacity per foot	0.163									
2 Well Volumes	4.8 → 5									
PURGE DATE	2.23.16									
PURGE TIME	1326									
SAMPLE DAY	2.23.16									
SAMPLE TIME	1345									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

SNOW, 36°

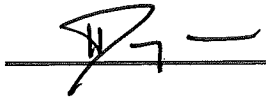
WATER APPEARANCE

CLEAR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-32			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.24.16	(1)	1515	7.23	13.89	113.1	93.22	111.98	31.1	38.5
GAUGE TIME	1508	(2)	1519	7.46	13.18	112.8	94.78	114.25	38.9	32.0
DTB (feet) Depth to Bottom	27.75	(3)	1524	7.49	12.99	116.8	98.34	119.49	18.4	36.2
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	14.53									
DTB - DTW	13.22									
Capacity per foot	0.163									
2 Well Volumes	4.31 → 4.5									
PURGE DATE	2.24.16									
PURGE TIME	1524									
SAMPLE DAY	2.24.16									
SAMPLE TIME	1550									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, LIGHT → MOD WIND, 51°

WATER APPEARANCE

CLEAR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature:

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-33			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.25.16	(1)	1124	6.67	13.45	67.60	56.35	61.09	73.8	7.0
GAUGE TIME	1116	(2)	1128	6.92	12.89	67.23	56.80	61.55	14.4	10.2
DTB (feet) Depth to Bottom	33.20	(3)	1132	6.98	12.92	69.19	58.48	63.72	14.0	19.5
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	23.20									
DTB - DTW	10.00									
Capacity per foot	0.163									
2 Well Volumes	3.26 → 3.5									
PURGE DATE	2.25.16									
PURGE TIME	1132									
SAMPLE DAY	2.25.16									
SAMPLE TIME	1155									
PUMP DEPTH	—									
DTW (feet) at end of Purging	~									

WEATHER CONDITIONS

CLEAR, CALM, 48°

WATER APPEARANCE

CLEAR → BROWN

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature:

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-#34			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.25.16	(1)	1556	7.16	14.72	82.73	66.97	74.94	70.9	34.2
GAUGE TIME	1547	(2)	1600	7.21	14.20	81.46	67.02	74.98	53.4	39.0
DTB (feet) Depth to Bottom	27.67	(3)	1604	7.27	14.05	82.04	67.54	75.69	45.3	42.2
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	19.20									
DTB - DTW	8.47									
Capacity per foot	0.163									
2 Well Volumes	2.76 → 3.0									
PURGE DATE	2.25.16									
PURGE TIME	1604									
SAMPLE DAY	2.25.16									
SAMPLE TIME	1630									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, CALM, 61°

WATER APPEARANCE

CLEAR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature:

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-35			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.26.16	(1)	1130	6.67	12.26	53.57	45.86	4/8.16	34.8	-100
GAUGE TIME	1125	(2)	1132	6.77	12.36	53.72	46.15	48.47	74.7	-104
DTB (feet) Depth to Bottom	16.45	(3)	1134	6.78	11.57	52.78	4629	48.59	66.1	-106.1
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	8.40									
DTB - DTW	8.05									
Capacity per foot	0.163									
2 Well Volumes	2.62									
PURGE DATE	2.26.16									
PURGE TIME	1134									
SAMPLE DAY	2.26.16									
SAMPLE TIME	1200									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR CALM 48°

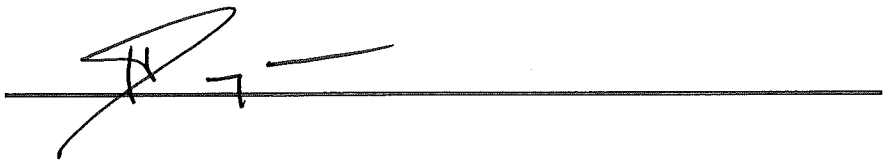
WATER APPEARANCE

CLEAR → BROWN — FAINT ODOR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-38			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.29.16	(1)	1549	6.53	12.66	78.32	66.61	74.18	20.7	-8.5
GAUGE TIME	1544	(2)	1552	6.64	12.10	77.49	66.83	74.38	11.7	-54.4
DTB (feet) Depth to Bottom	20.40	(3)	1556	6.66	12.45	74.56	63.76	70.43	20.0	-54.1
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	8.63									
DTB - DTW	11.77									
Capacity per foot	0.163									
2 Well Volumes	3.84 → 4									
PURGE DATE	2.29.16									
PURGE TIME	1556									
SAMPLE DAY	2.29.16									
SAMPLE TIME	1620									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, WEST WIND, 63°

WATER APPEARANCE

CLEAR → LT BROWN

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature:

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-39			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3.3.16	(1)	1600	6.58	15.89	232.6	181.5	280.8	2 39.9	-124.4
GAUGE TIME	1550	(2)	1602	6.61	15.31	441.7	352.6	891.3	2 25.7	-108.9
DTB (feet) Depth to Bottom	15.18	(3)	1604	6.55	15.10	443.6	355.4	905.0	5 11.5	-109.5
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	8.50									
DTB - DTW	6.68									
Capacity per foot	0.163									
2 Well Volumes	2.18									
PURGE DATE	3.3.16									
PURGE TIME	1604									
SAMPLE DAY	3.3.16									
SAMPLE TIME	1630									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, LIGHT WIND, 70°

WATER APPEARANCE

CLEAR → LIGHT GRAY, ODOR

SHEEN

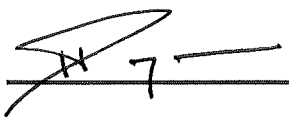
SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-40			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.23.16	(1)	1421	6.75	9.97	338.1	3876	675.13	92.8	66.0
GAUGE TIME	1413	(2)	1425	6.80	11.06	446.6	3945	999.99	50.0	64.9
DTB (feet) Depth to Bottom	23.60	(3)	1429	6.74	10.97	4.605	4.025	3.35	47.5	58.5
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	13.88									
DTB - DTW	9.72									
Capacity per foot	0.163									
2 Well Volumes	3.17 → 3.25									
PURGE DATE	2.23.16									
PURGE TIME	1429									
SAMPLE DAY	2.23.16									
SAMPLE TIME	1450									
PUMP DEPTH	—									
DTW (feet) at end of Purging	~									

WEATHER CONDITIONS

CLOUDY, SNOW, 36°

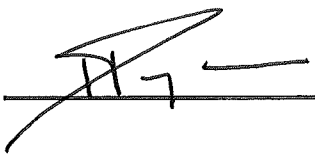
WATER APPEARANCE

CLEAR → LT. PINK

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-41			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.24.16	(1)	1621	7.62	13.66	126.0	104.5	129.42	94.1	29.0
GAUGE TIME	1610	(2)	1627	7.96	13.54	126.6	105.3	130.68	33.6	42.3
DTB (feet) Depth to Bottom	40.00	(3)	1632	7.99	13.39	128.0	104.9	129.86	32.6	44.9
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	19.90	WEATHER CONDITIONS								
DTB - DTW	20.10	CALM, CLEAR, 52°								
Capacity per foot	0.163									
2 Well Volumes	6.55 → 6.75									
PURGE DATE	2.24.16	WATER APPEARANCE								
PURGE TIME	1632	CLEAR → LT BROWN								
SAMPLE DAY	2.24.16									
SAMPLE TIME	1650									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

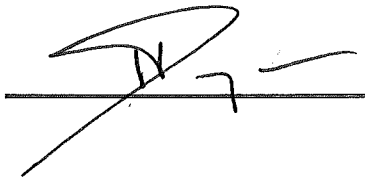
SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-42			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.24.16	(1)	1405	7.41	13.14	148.1	124.4	162.60	64.9	21.7
GAUGE TIME	1357	(2)	1411	7.76	12.87	137.5	116.3	148.46	85.8	-6.9
DTB (feet) Depth to Bottom	33.13	(3)	1417	7.76	13.00	135.0	113.8	144.41	52.2	-1.8
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	17.69									
DTB - DTW	15.44									
Capacity per foot	0.163									
2 Well Volumes	5.00									
PURGE DATE	2.24.16									
PURGE TIME	1417									
SAMPLE DAY	2.24.16									
SAMPLE TIME	1450									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR, LIGHT WIND, 48°

WATER APPEARANCE

CLEAR, AMBER

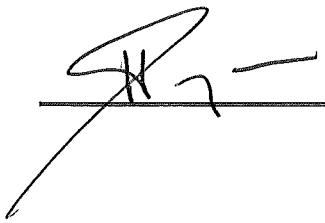
SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature: 

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-43			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.24.16	(1)	1315	6.69	8.60	1342	1264	999.99	50.4	65.2
GAUGE TIME	1304	(2)	1319	7.28	6.55	1319	1301	999.99	22.3	71.9
DTB (feet) Depth to Bottom	15.42	(3)	1323	7.25	6.53	1316	1293	999.99	23.9	82.6
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	5.00									
DTB - DTW	10.42									
Capacity per foot	0.163									
2 Well Volumes	3.40 → 3.5									
PURGE DATE	2.24.16									
PURGE TIME	1323									
SAMPLE DAY	2-24-16									
SAMPLE TIME	1340									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

WEATHER CONDITIONS

CLEAR CALM 46°

WATER APPEARANCE

CLEAR

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature:

WESTERN REFINING - GALLUP REFINERY

1ST QTR 2016

SAMPLE ID/LOCATION		TEST PARAMATERS								
MKTF-44			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	2.24.16	(1)	1213	7.49	12.97	96.21	81.20	94.20	155.5	9.2
GAUGE TIME	1205	(2)	1220	7.78	12.43	95.85	82.00	95.20	66.1	10.4
DTB (feet) Depth to Bottom	51.00	(3)	1228	7.84	12.42	94.66	81.17	94.01	101.1	11.2
DEDICATED PUMP	—	(4)								
DTW (feet) Depth to Water	28.74	WEATHER CONDITIONS: CLEAR, CALM, 40°								
DTB - DTW	22.26									
Capacity per foot	0.163									
2 Well Volumes	7.25									
PURGE DATE	2.24.16	WATER APPEARANCE: CLEAR → LT PINK								
PURGE TIME	1228									
SAMPLE DAY	2.24.16									
SAMPLE TIME	1245									
PUMP DEPTH	—									
DTW (feet) at end of Purging	—									

SAMPLE LOG

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Bailer

Signature:

WESTERN REFINING - GALLUP REFINERY

2ND QTR 2016

OW-1	
GAUGE DATE	6/6/2016
GAUGE TIME	1410
DTB (feet) Depth to Bottom	94.55
DEDICATED PUMP	Y
DTW (feet) Depth to Water	FULL
DTB - DTW	94.55
Capacity per foot	0.740
3 Well Volumes	209.90
PURGE DATE	6/6/2016
PURGE TIME	
SAMPLE DAY	6/6/2016
SAMPLE TIME	1518
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	15.01	8.74	15.06	56.890	45.640	48.030	41.2	-25.1
(2)	15.03	8.64	15.36	57.450	45.770	48.200	29.1	-10.2
(3)								
(4)								

WEATHER CONDITIONS

Overcast, breezy, 80-85 deg F

WATER APPEARANCE

Clear slightly cloudy - pink

SAMPLE LOG

Water level full (to top of casing).

OW-10	
GAUGE DATE	6/6/2016
GAUGE TIME	1530
DTB (feet) Depth to Bottom	60.33
DEDICATED PUMP	Y
DTW (feet) Depth to Water	1.22
DTB - DTW	59.11
Capacity per foot	0.740
3 Well Volumes	131.22
PURGE DATE	6/6/2016
PURGE TIME	
SAMPLE DAY	6/6/2016
SAMPLE TIME	1615
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)								
(2)	Did not save results on the meter.							
(3)								
(4)								

Overcast-cloudy, breezy, 70-75 deg F

WATER APPEARANCE

Clear, no odor detected.

SAMPLE LOG

Purged water collected in 300 gallon tote and disposed of upstream of the WW treatment Plant.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
bailer.

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY

2ND QTR 2016

NAPIS-3	
GAUGE DATE	6/7/2016
GAUGE TIME	812
DTB (feet) Depth to Bottom	30.42
DTW (feet) Depth to Water	7.72
DTB - DTW	22.70
Capacity per foot	0.163
3 Well Volumes	11.10
PURGE DATE	6/7/2016
PURGE TIME	
SAMPLE DAY	6/7/2016
SAMPLE TIME	925
Depth to Product	
Product Layer	

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	918	7.55	18.47	1718.000	127.600	170.00	53.3	5.6
(2)	920	7.74	19.47	177.500	129.000	172.76	31.3	-9.4
(3)	922	7.71	19.42	177.400	129.100	172.92	24.1	-6.4
(4)	924	7.69	19.34	177.200	129.200	173.03	22.1	-1.5

WEATHER CONDITIONS

Partly cloudy, breezy, 65-70 Deg F

WATER APPEARANCE

Clear - slightly cloudy

SAMPLE LOG

With new bailer, bailed approx. 8 gallons. Collected purged water in a container and disposed of at the bundle pad.

KA-3	
GAUGE DATE	6/7/2016
GAUGE TIME	814
DTB (feet) Depth to Bottom	23.20
DTW (feet) Depth to Water	7.42
DTB - DTW	15.78
Capacity per foot	0.163
3 Well Volumes	7.72
PURGE DATE	6/7/2016
PURGE TIME	
SAMPLE DAY	6/7/2016
SAMPLE TIME	910
Depth to Product	
Product Layer	

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	902	7.25	23.80	83.900	55.810	60.74	55.0	-16.4
(2)	904	7.08	23.61	83.390	55.680	60.56	45.3	-8.1
(3)	906	7.02	23.39	82.820	55.550	60.40	42.0	3.8
(4)								

WEATHER CONDITIONS

Clear, calm, 60-65 deg F

WATER APPEARANCE

Clear - slightly cloudy

SAMPLE LOG

With new bailer, bailed approx. 6 gallons. Collected purged water in a container and disposed of at the bundle pad.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Polyethylene Bailer

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY

2ND QTR 2016

NAPIS-1

GAUGE DATE	6/7/2016
GAUGE TIME	814
DTB (FT) Depth to Bottom	13.53
DTW (FT) Depth to Water	6.45
DTB - DTW	7.08
Capacity per foot	0.163
3 Well Volumes	3.46
PURGE DATE	6/7/2016
PURGE TIME	
SAMPLE DAY	6/7/2016
SAMPLE TIME	1012
Depth to Product	
Product Layer	

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)								
(2)	Did not save results on the meter.							
(3)								
(4)								

WEATHER CONDITIONS

Clear, slight breeze, 60-65 deg F.

WATER APPEARANCE

Clear, no odor detected

SAMPLE LOG

Used new bailer for purging and collecting samples. Purged water collected in a plastic container and disposed of at the bundle pad.

NAPIS-2

GAUGE DATE	6/7/2016
GAUGE TIME	810
DTB (FT) Depth to Bottom	13.61
DTW (FT) Depth to Water	6.40
DTB - DTW	7.21
Capacity per foot	0.163
3 Well Volumes	3.53
PURGE DATE	6/7/2016
PURGE TIME	
SAMPLE DAY	6/7/2016
SAMPLE TIME	850
Depth to Product	
Product Layer	

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	841	7.14	23.46	117.30	78.530	91.30	22.4	-108.2
(2)	843	7.02	23.30	116.80	78.470	91.22	17.8	-111.3
(3)	845	6.98	23.03	116.20	78.500	91.25	15.4	-107.6
(4)								

WEATHER CONDITIONS

Clear, calm, 60-65 Deg F

WATER APPEARANCE

Clear with slight yellow tint

SAMPLE LOG

With new bailer, bailed approx. 4 gallons. Collected purged water in a container and disposed of at the bundle pad.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer
Disposable Polyethylene Bailer

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
2ND QTR 2016

OAPIS-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	6/7/2016	(1)								
GAUGE TIME	1037	(2)	Did not save results on the meter.							
DTB (feet) Depth to Bottom	28.30	(3)								
DTW (feet) Depth to Water	11.50	(4)								
DTB - DTW	16.80									
Capacity per foot	0.163									
3 Well Volumes	8.22									
PURGE DATE	6/7/2016									
PURGE TIME										
SAMPLE DAY	6/7/2016									
SAMPLE TIME	1100									
Depth to Product										
Product Layer										

WEATHER CONDITIONS
Partly cloudy, breezy, 65-70 Deg F

WATER APPEARANCE
Clear with slight yellow tint, odor detected

SAMPLE LOG

Used new bailer to purge and collect samples. Purged water collected in a plastic container and disposed of at the bundle pad. Well was found with concrete base uprooted from the ground; well casing did not appear to be damaged - arranged to have the concrete base re-installed. Well was damaged by a driver backing up into the well and was not aware of the well installation.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Polyethylene Bailer

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY

2ND QTR 2016

GWM-2	
GAUGE DATE	6/7/2016
GAUGE TIME	1131
DTB (feet) Depth to Bottom	18.81
DEDICATED PUMP	N
DTW (feet) Depth to Water	DRY
DTB - DTW Capacity per foot 2 Well Volumes	0.163
PURGE DATE	
PURGE TIME	
SAMPLE DAY	
SAMPLE TIME	
Depth to Product Product Layer	

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)								
(2)								
(3)								
(4)								

WEATHER CONDITIONS

Partly cloudy, breezy, 75-80 Deg F

WATER APPEARANCE

No water detected

SAMPLE LOG

GWM-3	
GAUGE DATE	6/7/2016
GAUGE TIME	1130
DTB (feet) Depth to Bottom	17.80
DEDICATED PUMP	N
DTW (feet) Depth to Water	DRY
DTB - DTW Capacity per foot 2 Well Volumes	0.163
PURGE DATE	
PURGE TIME	
SAMPLE DAY	
SAMPLE TIME	
Depth to Product Product Layer	

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)								
(2)								
(3)								
(4)								

WEATHER CONDITIONS

Partly cloudy, breezy, 75-80 Deg F

WATER APPEARANCE

No water detected

SAMPLE LOG

INSTRUMENTS USED:

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
2ND QTR 2016

GWM-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	6/7/2016	(1)								
GAUGE TIME	1132	(2)								
DTB (feet) Depth to Bottom	26.20	(3)								
DTW (feet) Depth to Water	21.39	(4)								
DTB - DTW	4.81	**WEATHER CONDITIONS** Partly cloudy, breezy, 75-80 Deg F								
Capacity per foot	0.163									
3 Well Volumes	1.57									
PURGE DATE		**WATER APPEARANCE**								
PURGE TIME										
SAMPLE DAY		Dark brown oily, odor								
SAMPLE TIME										
Depth to Product	21.36									
Product Layer	0.03									

SAMPLE LOG

Used new bailer to purge and collect samples. Purged water collected in a plastic container and disposed of at the bundle pad.
NO SAMPLES COLLECTED

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Polyethylene Bailer

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY

2ND QTR 2016

Oil Sump LDU		**WEATHER CONDITIONS**
GAUGE DATE	6/7/2016	Partly cloudy, breezy, 65-70 Deg F
GAUGE TIME	1342	**WATER APPEARANCE**
DTB (feet) Depth to Bottom	NA	
DTW (feet) Depth to Water	DRY	
DTB - DTW	NA	**NOTES**
PURGE DATE	NA	No samples collected - dry
PURGE TIME	NA	
SAMPLE DATE		
SAMPLE TIME		

East LDU		**WEATHER CONDITIONS**
GAUGE DATE	6/7/2016	Partly cloudy, breezy, 65-70 Deg F
GAUGE TIME	1341	**WATER APPEARANCE**
DTB (feet) Depth to Bottom	NA	gray, odor
DTW (feet) Depth to Water	4.63	
DTB - DTW	NA	**NOTES**
PURGE DATE	NA	Collected Grab Sample
PURGE TIME	NA	
SAMPLE DATE	6/7/2016	
SAMPLE TIME	1400	

West LDU		**WEATHER CONDITIONS**
GAUGE DATE	6/7/2016	Partly cloudy, breezy, 65-70 Deg F
GAUGE TIME	1340	**WATER APPEARANCE**
DTB (feet) Depth to Bottom	NA	Yellow tint - odor
DTW (feet) Depth to Water	6.53	
DTB - DTW	NA	**NOTES**
PURGE DATE	NA	Collected grab sample
PURGE TIME	NA	
SAMPLE DATE	6/7/2016	
SAMPLE TIME	1343	

INSTRUMENTS USED:
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Polyethylene Bailer

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
2016 QUARTERLY INSPECTION

RW-1 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	6/8/2016	Product Thickness (ft)	3.820	Rain showers
GAUGE TIME	1240	Volume of Product Purged (Gallons)	3.500	
DTB (feet) Depth to Bottom	43.04	Volume of Water Purged (Gallons)	28	WATER APPEARANCE
		PURGE DATE		Clear to yellow with sheen and odor
DTP (feet) Depth to Product	27.98	PURGE TIME		
DTW (feet) Depth to Water	31.80	SAMPLE DAY	N/A	
DTB - DTW	11.24	SAMPLE TIME	N/A	
WELL PURGING				Notes
START DATE	START TIME	END DATE	END TIME	No samples collected - bailed for product recovery only.

ADDITIONAL NOTES:

Purged water collected in a 55 gallon drum.

RW-2 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	6/8/2016	Product Thickness (ft)	0.000	Clear, calm
GAUGE TIME	850	Volume of Product Purged (Gallons)	N/A	
DTB (feet) Depth to Bottom	39.80	Volume of Water Purged (Gallons)	26	WATER APPEARANCE
		PURGE DATE	N/A	Clear - cloudy - brown at end of purge
DTP (feet) Depth to Product	0.00	PURGE TIME	N/A	
DTW (feet) Depth to Water	22.31	SAMPLE DAY	6/8/2016	
DTB - DTW	17.49	SAMPLE TIME	920	
WELL PURGING				Notes
START DATE	START TIME	END DATE	END TIME	Bailed 26 gallons - samples collected.
N/A				

ADDITIONAL NOTES:

Purged water disposed of upstream of WWTP.

INSTRUMENTS USED:
YSI 556 MPS Instrument with flow cell. Used to collect water quality parameters.
WaterMark oil Water Interface Meter (100 ft), Model 101L/SMOIL, S/N 01-5509
Submersible bladder pump, Grundfos Redi-flo 2, 2" and an adjustable rate controller.
5 gallon buckets to catch purge water.
Dedicated portable pump used for RW-1

SIGNATURE: /s/ *Cheryl Johnson* / Environmental Specialist

WESTERN REFINING - GALLUP REFINERY
2016 QUARTERLY INSPECTION

RW-5 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	6/7/2016	Product Thickness (ft)	0.000	Ptly cloudy, breezy
GAUGE TIME	1547	Volume of Product Purged (Gallons)	N/A	
DTB (feet) Depth to Bottom	39.59	Volume of Water Purged (Gallons)	17	**WATER APPEARANCE**
		PURGE DATE		Clear - cloudy - gray - sheen - odor. No measurable layer.
DTP (feet) Depth to Product	0.00	PURGE TIME		
DTW (feet) Depth to Water	28.22	SAMPLE DAY	6/7/2016	
DTB - DTW	11.37	SAMPLE TIME	1605	
WELL PURGING				**Notes**
START DATE	START TIME	END DATE	END TIME	No measurable product layer - bailed 17 gallons - samples collected.

ADDITIONAL NOTES:

Purged water disposed of upstream of the WWTP.

RW-6 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	6/7/2016	Product Thickness (ft)	0.000	Ptly cloudy, breezy
GAUGE TIME	1545	Volume of Product Purged (Gallons)	N/A	
DTB (feet) Depth to Bottom	40.90	Volume of Water Purged (Gallons)	18	**WATER APPEARANCE**
		PURGE DATE		Clear - cloudy - sheen - odor
DTP (feet) Depth to Product	0.00	PURGE TIME		
DTW (feet) Depth to Water	28.24	SAMPLE DAY	6/7/2016	
DTB - DTW	12.66	SAMPLE TIME	1630	
WELL PURGING				**Notes**
START DATE	START TIME	END DATE	END TIME	Bailed 18 gallons - samples collected.

ADDITIONAL NOTES:

Purged water disposed of upstream of the WWTP.

INSTRUMENTS USED:
YSI 556 MPS Instrument with flow cell. Used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Submersible bladder pump, Grundfos Redi-flo 2, 2" and an adjustable rate controller.
5 gallon buckets to catch purge water.
3 foot disposable bailer.

SIGNATURE: /s/ *Cheryl Johnson* / Environmental Specialist

WESTERN REFINING - GALLUP REFINERY

2ND QTR 2016

OW-13	
GAUGE DATE	6/6/2016
GAUGE TIME	1245
DTB (feet) Depth to Bottom	99.15
DEDICATED PUMP	Y
DTW (feet) Depth to Water	21.45
DTB - DTW	77.70
Capacity per foot	0.740
3 Well Volumes	172.49
PURGE DATE	6/6/2016
PURGE TIME	
SAMPLE DAY	6/6/2016
SAMPLE TIME	1345
PUMP DEPTH	80 ft
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1337	8.10	14.09	64.850	42.150	43.83	57.6	-21.9
(2)	1339	8.07	14.50	64.940	42.210	43.93	32.8	-17.7
(3)	1341	7.96	14.53	65.260	42.420	44.20	24.6	-1.4
(4)	1343	7.93	15.05	65.410	42.520	44.33	20.8	9.1

WEATHER CONDITIONS

Overcast, breezy, 80-85 Deg F.

WATER APPEARANCE

Clear, no odor

SAMPLE LOG

Purged water collected in 55 gallon drums and disposed of upstream of the WW treatment Plant.

OW-14	
GAUGE DATE	6/6/2016
GAUGE TIME	815
DTB (feet) Depth to Bottom	46.52
DEDICATED PUMP	Y
DTW (feet) Depth to Water	23.18
DTB - DTW	23.34
Capacity per foot	0.740
3 Well Volumes	51.81
PURGE DATE	6/6/2016
PURGE TIME	
SAMPLE DAY	6/6/2016
SAMPLE TIME	845
PUMP DEPTH	30 ft
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)								
(2)	Did not save results on the meter.							
(3)								
(4)								

WEATHER CONDITIONS

Partly cloudy, breezy, 70-75 Deg F.

WATER APPEARANCE

Clear, no odor

SAMPLE LOG

Purged water collected in 55 gallon drums and disposed of upstream of the WW treatment Plant.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Dedicated pumps

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
2ND QTR 2016

OW-29	
GAUGE DATE	6/6/2016
GAUGE TIME	910
DTB (feet) Depth to Bottom	51.08
DEDICATED PUMP	Y
DTW (feet) Depth to Water	18.16
DTB - DTW	32.92
Capacity per foot	0.740
3 Well Volumes	73.08
PURGE DATE	6/6/2016
PURGE TIME	
SAMPLE DAY	6/6/2016
SAMPLE TIME	1030
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1024	7.01	13.88	78.040	64.400	71.44	56.7	-76.3
(2)	1026	7.03	14.17	78.580	64.390	71.47	24.8	-71.0
(3)	1028	7.03	14.47	79.260	64.480	71.62	14.8	-68.0
(4)	1030	7.03	14.83	79.960	64.500	71.69	11.3	-64.6

WEATHER CONDITIONS

Partly cloudy, breezy 70-75 Deg F.

WATER APPEARANCE

Clear, no odor detected; end of bailing - water had slight brownish tint

SAMPLE LOG

Pump lost suction at 36 gallons - allowed to recharge - purged a total of 48 gallons. Purged water collected in 55 gallon drums and disposed of upstream of the WW treatment Plant.

OW-30	
GAUGE DATE	6/6/2016
GAUGE TIME	1045
DTB (feet) Depth to Bottom	49.90
DEDICATED PUMP	Y
DTW (feet) Depth to Water	22.64
DTB - DTW	27.26
Capacity per foot	0.740
3 Well Volumes	60.52
PURGE DATE	6/6/2016
PURGE TIME	
SAMPLE DAY	6/6/2016
SAMPLE TIME	1110
PUMP DEPTH	38 ft
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1104	7.08	13.26	79.280	66.430	74.03	66.4	-26.9
(2)	1103	7.01	13.51	79.830	66.480	74.13	33.9	-15.4
(3)	1105	6.97	13.83	80.540	66.550	74.27	23.8	-10.4
(4)								

WEATHER CONDITIONS

Partly cloudy,breezy, 70-75 Deg F.

WATER APPEARANCE

Clear, No odor detected

SAMPLE LOG

Purged water collected in 55 gallon drums and disposed of upstream of the WW treatment Plant.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Dedicated pumps

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
2ND QTR 2016

STP1-NW	
GAUGE DATE	6/7/2016
GAUGE TIME	1415
DTB (feet) Depth to Bottom	50.00
DTW (feet) Depth to Water	20.89
DTB - DTW	29.11
Capacity per foot	0.163
3 Well Volumes	14.23
PURGE DATE	6/7/2016
PURGE TIME	
SAMPLE DAY	6/7/2016
SAMPLE TIME	1500
Depth to Product	NONE
Product Layer	

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)								
(2)								
(3)								
(4)								

WEATHER CONDITIONS

Partly cloudy, breezy

WATER APPEARANCE

Clear to cloudy, no odor detected

SAMPLE LOG

Used new bailer to purge and collect samples. Purged water collected in a plastic container and disposed of at the bundle pad.

STP1-SW	
GAUGE DATE	6/7/2016
GAUGE TIME	1505
DTB (feet) Depth to Bottom	29.10
DTW (feet) Depth to Water	DRY
DTB - DTW	N/A
Capacity per foot	0.163
3 Well Volumes	N/A
PURGE DATE	
PURGE TIME	
SAMPLE DAY	
SAMPLE TIME	
Depth to Product	
Product Layer	

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)								
(2)								
(3)								
(4)								

WEATHER CONDITIONS

Partly cloudy, breezy

WATER APPEARANCE

No water detected

SAMPLE LOG

INSTRUMENTS USED:
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Polyethylene Bailer

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
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OW-1	
GAUGE DATE	9/6/2016
GAUGE TIME	815
DTB (feet)	
Depth to Bottom	94.55
DEDICATED PUMP	Y
DTW (feet)	
Depth to Water	FULL
DTB - DTW	94.55
Capacity per foot	0.740
3 Well Volumes	209.90
PURGE DATE	9/6/2016
PURGE TIME	900
SAMPLE DAY	9/6/2016
SAMPLE TIME	1300

TEST PARAMETERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1244	6.85	15.23	71773	46.653	49.260	27	-18.8
(2)	1246	6.77	15.35	71762	46.645	49.250	60	-14.6
(3)	1248	6.68	15.54	71667	46.583	49.190	47.7	-8.3
(4)	1250	6.63	15.67	71776	46.654	19.280	42.4	-4.5

WEATHER CONDITIONS

Clear, calm 55-60 deg F

WATER APPEARANCE

Clear, no odor - slight brownish tint at end of purge.

SAMPLE LOG

Water level full (to top of casing). Pump lost suction at 65 gallons - stopped at 9am. Allowed to recharge - restarted with purge at 950 - lost suction again after 20 gallons, shut down pump and allowed to recharge. Came back at 1300 hours to collect sample. Purged water collected in 55 gallon drums and disposed of upstream of the WWT plant.

OW-10	
GAUGE DATE	9/6/2016
GAUGE TIME	1030
DTB (feet)	
Depth to Bottom	60.33
DEDICATED PUMP	Y
DTW (feet)	
Depth to Water	0.38
DTB - DTW	59.95
Capacity per foot	0.740
3 Well Volumes	133.09
PURGE DATE	9/6/2016
PURGE TIME	1032
SAMPLE DAY	9/6/2016
SAMPLE TIME	1140

TEST PARAMETERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1132	7.39	14.64	209077	135.9	184.24	329	5.1
(2)	1134	6.53	13.46	212529	138.14	187.94	83.5	-7.3
(3)	1136	6.33	13.63	212873	138.37	188.45	46.7	-7.1
(4)	1138							

WEATHER CONDITIONS

Overcast, breezy, 65-70 deg F.

WATER APPEARANCE

Clear, no odor detected.

SAMPLE LOG

Purged water collected in 55 gallon drums and disposed of upstream of the WW treatment Plant.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
bailer.

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY

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OW-11		TEST PARAMETERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	9/9/2016	(1)	1427	12.26	16.01	2675	1.739	1.39	17.3	-375.3
GAUGE TIME	1340	(2)	1429	12.17	16.28	2676	1.739	1.39	16.9	-357.3
DTB (feet) Depth to Bottom	65.79	(3)	1431	12.12	16.51	2678	1.741	1.39	16.6	-351.4
DEDICATED PUMP	N	(4)	1433	12.12	16.90	2671	1.736	1.39	16.2	-360.0
DTW (feet) Depth to Water	18.79	WEATHER CONDITIONS								
DTB - DTW	47.00	Clear, calm, 65-70 deg								
Capacity per foot	0.740									
3 Well Volumes	104.34									
PURGE DATE	9/9/2016									
PURGE TIME	1345	WATER APPEARANCE								
SAMPLE DAY	9/9/2016	Clear, no odor								
SAMPLE TIME	1435									

SAMPLE LOG

Purged approximately 110 gallons into tote for disposal upstream of the WWTP. Samples collected.

OW-12		TEST PARAMETERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	9/8/2016	(1)	1741	8.36	36.48	3921.000	2.549	2.03	202.9	-18.9
GAUGE TIME	1700	(2)								
DTB (feet) Depth to Bottom	128.85	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	47.23	WEATHER CONDITIONS								
DTB - DTW	81.62	partly cloudy, breezy								
Capacity per foot	0.740									
3 Well Volumes	181.20									
PURGE DATE	9/8/2016									
PURGE TIME	1705	WATER APPEARANCE								
SAMPLE DAY	9/8/2016									
SAMPLE TIME	1745	Clear, no odor detected.								

SAMPLE LOG

Purged 30 gallons, pump lost suction. Allowed to recharge and collected samples. Purged water collected in 55 gallon drums and disposed of upstream of the WWT plant.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
bailer

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
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OW-13	
GAUGE DATE	8/31/2016
GAUGE TIME	950
DTB (feet) Depth to Bottom	99.15
DEDICATED PUMP	Y
DTW (feet) Depth to Water	21.94
DTB - DTW	77.21
Capacity per foot	0.740
3 Well Volumes	171.41
PURGE DATE	8/31/2016
PURGE TIME	955
SAMPLE DAY	8/31/2016
SAMPLE TIME	1045

TEST PARAMETERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1038	7.38	13.17	65350.000	42.477	44.17	560.5	-19.5
(2)	1040	7.58	13.95	64476.000	41.909	43.55	28	-19.2
(3)	1042	7.61	14.34	64512.000	41.933	43.59	22.2	-20.1
(4)	1044	7.65	14.67	64240.000	41.756	43.40	19.4	-21.6

WEATHER CONDITIONS

Clear, calm, 55-60 deg F.

WATER APPEARANCE

Clear, no odor

SAMPLE LOG

Purged water collected in 55 gallon drums and disposed of upstream of the WW treatment Plant.

OW-14	
GAUGE DATE	8/31/2016
GAUGE TIME	814
DTB (feet) Depth to Bottom	46.52
DEDICATED PUMP	Y
DTW (feet) Depth to Water	23.50
DTB - DTW	23.02
Capacity per foot	0.740
3 Well Volumes	51.10
PURGE DATE	8/31/2016
PURGE TIME	825
SAMPLE DAY	8/31/2016
SAMPLE TIME	842

TEST PARAMETERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	831	5.97	13.65	108842	70.748	79.85	95.7	-111.6
(2)	833	6.33	13.75	108303	70.397	79.39	57.8	-126.9
(3)	835	6.47	13.73	108404	70.462	79.48	41.6	-119.9
(4)	837	6.51	13.78	108391	70.454	79.47	33.0	-110.6

WEATHER CONDITIONS

Clear, calm, 55-60 deg F.

WATER APPEARANCE

Clear, no odor

SAMPLE LOG

Purged water collected in 55 gallon drums and disposed of upstream of the WW treatment Plant.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Dedicated pumps

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
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OW-29	
GAUGE DATE	8/31/2016
GAUGE TIME	855
DTB (feet) Depth to Bottom	51.08
DEDICATED PUMP	Y
DTW (feet) Depth to Water	18.94
DTB - DTW	32.14
Capacity per foot	0.740
3 Well Volumes	71.35
PURGE DATE	8/31/2016
PURGE TIME	905
SAMPLE DAY	8/31/2016
SAMPLE TIME	940

TEST PARAMETERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	931	6.64	13.28	97435.000	63.333	69.98	83.9	-48.2
(2)	933	6.67	13.44	97478.000	63.361	70.04	48.2	-49.7
(3)	935	6.69	13.57	97507.000	63.380	70.08	32.4	-49.6
(4)	937	6.71	13.68	97617.000	63.451	70.18	24.4	-48.5

WEATHER CONDITIONS

Clear, calm, 55-60 deg F.

WATER APPEARANCE

Clear, No odor detected

SAMPLE LOG

Purged water collected in 55 gallon drums and disposed of upstream of the WW treatment Plant.

OW-30	
GAUGE DATE	8/31/2016
GAUGE TIME	1115
DTB (feet) Depth to Bottom	49.90
DEDICATED PUMP	Y
DTW (feet) Depth to Water	23.30
DTB - DTW	26.60
Capacity per foot	0.740
3 Well Volumes	59.05
PURGE DATE	8/31/2016
PURGE TIME	1120
SAMPLE DAY	8/31/2016
SAMPLE TIME	1150

TEST PARAMETERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1141	7.57	15.69	97330	63.264	70.14	127.4	2.7
(2)	1143	6.92	13.46	101484	65.965	73.45	73.0	-8.5
(3)	1145	6.89	13.77	101519	65.988	73.52	40.1	-9.4
(4)	1147	6.86	14.20	101484	65.965	73.54	25.6	-7.5

WEATHER CONDITIONS

Clear, breezy, 55-60 deg F.

WATER APPEARANCE

Clear, No odor detected

SAMPLE LOG

Purged water collected in 55 gallon drums and disposed of upstream of the WW treatment Plant.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Dedicated pumps

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY

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OW-50		TEST PARAMETERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	9/9/2016	(1)	1025	6.01	13.67	61743.000	40.133	41.45	445.5	16.0
GAUGE TIME	1015	(2)	1027	5.57	13.85	60072.000	39.047	40.20	86.4	-32.1
DTB (feet) Depth to Bottom	64.00	(3)	1029	5.55	14.17	59745.000	38.835	39.97	48.2	-42.3
DEDICATED PUMP	N	(4)	1031	5.53	14.25	59911.000	38.942	40.10	31.7	-47.2
DTW (feet) Depth to Water	16.19									
DTB - DTW	47.81									
Capacity per foot	0.163									
3 Well Volumes	23.38									
PURGE DATE	9/9/2016									
PURGE TIME	1020									
SAMPLE DAY	9/9/2016									
SAMPLE TIME	1040									

WEATHER CONDITIONS

Clear, calm, 55-60 deg.

WATER APPEARANCE

Clear first bail, turned pink/brown and back to clear - no odor

SAMPLE LOG

Used new bailer to purge and collect samples. Purged water collected in plastic container and disposed of at the bundle pad.

OW-52		TEST PARAMETERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	9/9/2016	(1)	941	5.57	13.80	52895.000	34.382	34.85	22.1	-103.5
GAUGE TIME	7/18/1902	(2)	943	5.55	13.93	52977.000	34.435	34.92	17.3	-100.9
DTB (feet) Depth to Bottom	77.74	(3)	945	5.54	14.06	53009.000	34.456	34.94	14.7	-96.1
DEDICATED PUMP	N	(4)	947	5.54	14.19	52986.000	34.441	34.93	12.8	-90.5
DTW (feet) Depth to Water	15.28									
DTB - DTW	62.46									
Capacity per foot	0.163									
3 Well Volumes	30.54									
PURGE DATE	9/9/2016									
PURGE TIME	932									
SAMPLE DAY	9/9/2016									
SAMPLE TIME	952									

WEATHER CONDITIONS

Clear, calm, 55-60 deg.

WATER APPEARANCE

Clear - cloudy - no odor

SAMPLE LOG

Used new bailer to purge and collect samples. Purged water collected in plastic container and disposed of at the bundle pad.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Bailer

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
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GWM-1		TEST PARAMETERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	9/13/2016	(1)								
GAUGE TIME	1248	(2)	None taken - has hydrocarbon level							
DTB (feet) Depth to Bottom	26.20	(3)								
Depth to Product	21.29	(4)								
DTW (feet) Depth to Water	-									
PRODUCT LAYER	4.91									
Capacity per foot	0.163									
2 Well Volumes										
PURGE DATE										
PURGE TIME										
SAMPLE DAY										
SAMPLE TIME										

WEATHER CONDITIONS

Clear 0-5 mph, 20-25 Deg F

WATER APPEARANCE

Dark, yellow, oily, odor

SAMPLE LOG

No samples collected

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Polyethylene Bailer

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
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GWM-2		TEST PARAMETERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	9/13/2016	(1)								
GAUGE TIME	1241	(2)	None taken - well is DRY							
DTB (feet) Depth to Bottom	18.81	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	DRY									
DTB - DTW Capacity per foot 2 Well Volumes	0.163									
PURGE DATE										
PURGE TIME										
SAMPLE DAY										
SAMPLE TIME										

WEATHER CONDITIONS

Partly Cloudy, breezy

WATER APPEARANCE

Not Applicable

SAMPLE LOG

GWM-3		TEST PARAMETERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	9/13/2016	(1)								
GAUGE TIME	1237	(2)	None taken - well is DRY							
DTB (feet) Depth to Bottom	17.80	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	DRY									
DTB - DTW Capacity per foot 2 Well Volumes	0.163									
PURGE DATE										
PURGE TIME										
SAMPLE DAY										
SAMPLE TIME										

WEATHER CONDITIONS

Partly Cloudy, breezy

WATER APPEARANCE

Not Applicable

SAMPLE LOG

INSTRUMENTS USED:
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
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NAPIS-3	
GAUGE DATE	9/1/2016
GAUGE TIME	944
DTB (feet) Depth to Bottom	30.42
DEDICATED PUMP	N
DTW (feet) Depth to Water	9.10
DTB - DTW	21.32
Capacity per foot	0.163
3 Well Volumes	10.43
PURGE DATE	9/1/2016
PURGE TIME	944
SAMPLE DAY	9/1/2016
SAMPLE TIME	1130

TEST PARAMETERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1121	7.03	24.20	108016	70.210	79.70	18.7	-29.5
(2)	1123	7.38	19.91	116825	75.936	87.56	20.4	-70.5
(3)	1125	4.50	20.04	116786	75.911	87.53	15.3	-76.3
(4)	1127	7.55	20.24	116747	75.885	87.51	12.7	-79.5

WEATHER CONDITIONS

Cloudy, calm, 70-75 Deg F.

WATER APPEARANCE

Clear with pink tint, end of bail turned brownish

SAMPLE LOG

Flush mount vaults were raised from original level and set with a concrete pad to minimize water getting inside the vault. Work was completed on August 10, 2016. Purged approximately 5 gallons when bailer was filling with brown water(sediment). Stopped purge and allowed to recharge before collecting samples. Purged water collected in 55 gal drum and disposed of

KA-3	
GAUGE DATE	9/1/2016
GAUGE TIME	942
DTB (feet) Depth to Bottom	23.20
DEDICATED PUMP	N
DTW (feet) Depth to Water	8.13
DTB - DTW	15.07
Capacity per foot	0.163
3 Well Volumes	7.37
PURGE DATE	9/1/2016
PURGE TIME	1000
SAMPLE DAY	9/1/2016
SAMPLE TIME	1120

TEST PARAMETERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1109	7.02	27.32	99440	64.636	72.11	9.9	-99.9
(2)	1111	6.98	28.12	97784	63.559	70.65	15.0	-62.1
(3)	1113	6.97	28.04	97748	63.536	70.62	15.9	-47.9
(4)	1115	6.97	27.94	97759	63.544	70.64	16.4	-38.8

WEATHER CONDITIONS

Cloudy, calm, 70-75 Deg F.

WATER APPEARANCE

Clear with slight pink tint

SAMPLE LOG

Flush mount vaults were raised from original level and set with a concrete pad to minimize water getting inside the vault. Work was completed on August 10, 2016. Purged water collected in 55 gal drum and disposed of upstream of the WWT Plant.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Polyethylene Bailer

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
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NAPIS-1		TEST PARAMETERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	9/1/2016	(1)	1035	6.82	21.56	100713	65.463	73.30	25.7	8.6
GAUGE TIME	1034	(2)	1037	6.82	21.61	100768	65.499	73.35	24.5	9.0
DTB (feet) Depth to Bottom	13.53	(3)	1039	6.83	21.65	100823	65.535	73.40	23.8	9.6
DEDICATED PUMP	N	(4)	1041	6.84	21.70	100887	65.577	73.45	23.3	10.0
DTW (feet) Depth to Water	6.99	WEATHER CONDITIONS								
DTB - DTW	6.54	Clear, calm, 70-75 deg F.								
Capacity per foot	0.163									
3 Well Volumes	3.20									
PURGE DATE	9/1/2016	WATER APPEARANCE								
PURGE TIME	1037									
SAMPLE DAY	9/1/2016	Clear, no odor detected								
SAMPLE TIME	1046									

SAMPLE LOG

Used new bailer to purge and collect samples. Purged water collected in 55 gallon drums and disposed of upstream of the WW treatment Plant.

NAPIS-2		TEST PARAMETERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	9/1/2016	(1)	1055	6.91	26.24	112346.00	73.025	83.53	13.2	-122.3
GAUGE TIME	940	(2)	1057	6.89	26.23	112256.00	72.967	83.45	11.7	-129.9
DTB (feet) Depth to Bottom	13.61	(3)	1059	6.90	26.21	112229.00	72.949	83.42	11.1	-132.5
DEDICATED PUMP	N	(4)	1101	6.90	26.18	112210.00	72.937	83.41	10.7	-132.1
DTW (feet) Depth to Water	8.84	WEATHER CONDITIONS								
DTB - DTW	4.77	Clear, calm, 70-75 deg F.								
Capacity per foot	0.163									
3 Well Volumes	2.33									
PURGE DATE	9/1/2016	WATER APPEARANCE								
PURGE TIME	1020									
SAMPLE DAY	9/1/2016	Clear first bail, pink-cloudy - no odor								
SAMPLE TIME	1105									

SAMPLE LOG

Flush mount vaults were raised from original level and set with a concrete pad to minimize water getting inside the vault. Work was completed on August 10, 2016. Purged water collected in 55 gal drum and disposed of upstream of the WWT Plant.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Polyethylene Bailer

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
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OAPIS-1		TEST PARAMETERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	9/1/2016	(1)	1209	6.53	16.17	357636.000	232.463	418.73	382.1	-136.5
GAUGE TIME	1200	(2)	1211	6.50	16.39	356965.000	232.027	417.59	65.9	-131.7
DTB (feet) Depth to Bottom	28.30	(3)	1213	6.51	16.43	357062.000	232.090	417.80	37.1	-127.4
DEDICATED PUMP	N	(4)	1215	6.51	16.54	356935.000	232.008	417.64	26.0	-122.9
DTW (feet) Depth to Water	11.32	**WEATHER CONDITIONS**								
DTB - DTW	16.98									
Capacity per foot	0.163	Clear, breezy, 70-75 deg F.								
3 Well Volumes	8.30									
PURGE DATE	9/1/2016	**WATER APPEARANCE**								
PURGE TIME	1205									
SAMPLE DAY	9/1/2016	Clear with slight yellow-orange tint, slight odor detected								
SAMPLE TIME	1220									
PUMP DEPTH	NA									
DTW (feet) at end of Purging										

SAMPLE LOG

Used new bailer to purge and collect samples. Purged water collected in a plastic container and disposed of upstream of the WWT plant.

INSTRUMENTS USED:
YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Polyethylene Bailer

Signature: _____

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY

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Oil Sump LDU		**WEATHER CONDITIONS**
GAUGE DATE	9/6/2016	Clear, breezy
GAUGE TIME	1331	**WATER APPEARANCE**
DTB (feet) Depth to Bottom	NA	NOT APPLICABLE
DTW (feet) Depth to Water	DRY	
DTB - DTW	NA	**NOTES**
PURGE DATE	NA	No samples collected - dry
PURGE TIME	NA	
SAMPLE DATE	N/A	
SAMPLE TIME		

East LDU		**WEATHER CONDITIONS**
GAUGE DATE	9/6/2016	Clear, breezy
GAUGE TIME	1335	**WATER APPEARANCE**
DTB (feet) Depth to Bottom	NA	Not Applicable
DTW (feet) Depth to Water	11.16	
DTB - DTW	NA	**NOTES**
PURGE DATE	NA	Not enough water for samples. Rechecked on 9/9/16 - level still low.
PURGE TIME	NA	
SAMPLE DATE	N/A	
SAMPLE TIME		

West LDU		**WEATHER CONDITIONS**
GAUGE DATE	9/6/2016	Clear, breezy
GAUGE TIME	1330	**WATER APPEARANCE**
DTB (feet) Depth to Bottom	NA	Not Applicable
DTW (feet) Depth to Water	12.12	
DTB - DTW	NA	**NOTES**
PURGE DATE	NA	Not enough water to collect samples - less than 1 inch of water. Rechecked on 9/9/16 - level still low.
PURGE TIME	NA	
SAMPLE DATE		
SAMPLE TIME	N/A	

INSTRUMENTS USED:
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Polyethylene Bailer

Signature: _____

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WESTERN REFINING - GALLUP REFINERY
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STP1-NW		TEST PARAMETERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	9/9/2016	(1)	1118	7.52	13.5	371796	241.700	444.30	74.9	-26
GAUGE TIME	1100	(2)	1120	7.50	13.5	372422	242.100	445.55	53.3	-23
DTB (feet) Depth to Bottom	50.00	(3)	1122	7.48	13.4	372779	242.300	446.22	42.1	-21
DEDICATED PUMP	N	(4)	1124	7.48	13.4	372905	242.400	446.48	34.5	-20
DTW (feet) Depth to Water	21.20									
DTB - DTW	28.80									
Capacity per foot	0.163									
3 Well Volumes	14.08									
PURGE DATE	9/9/2016									
PURGE TIME	1103									
SAMPLE DAY	9/9/2016									
SAMPLE TIME	1125									

WEATHER CONDITIONS

Clear, calm 65-70 degrees

WATER APPEARANCE

Clear with slight yellow tint - cloudy - no odor detected

SAMPLE LOG

Used new bailer to purge and collect samples. Purged water collected in a plastic container and disposed of at the bundle pad.

STP1-SW		TEST PARAMETERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	9/9/2016	(1)								
GAUGE TIME	1135	(2)	**None taken - dry well**							
DTB (feet) Depth to Bottom	29.10	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	DRY									
DTB - DTW										
Capacity per foot	0.163									
2 Well Volumes										
PURGE DATE										
PURGE TIME										
SAMPLE DAY	N/A									
SAMPLE TIME										

WEATHER CONDITIONS

Clear, calm 65-70 degrees

WATER APPEARANCE

Not Applicable

SAMPLE LOG

INSTRUMENTS USED:
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Polyethylene Bailer

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
2016 QUARTERLY INSPECTION

RW-1 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	9/13/2016	Product Thickness (ft)	4.140	Partly cloudy, breezy
GAUGE TIME	1305	Volume of Product Purged (Gallons)	2.500	
DTB (feet) Depth to Bottom	43.04	Volume of Water Purged (Gallons)	10	WATER APPEARANCE
		PURGE DATE		Clear to yellow with sheen and odor
DTP (feet) Depth to Product	27.90	PURGE TIME		
DTW (feet) Depth to Water	32.04	SAMPLE DAY	N/A	
DTB - DTW	11.00	SAMPLE TIME	N/A	
WELL PURGING				Notes
START DATE	START TIME	END DATE	END TIME	Collected a sample of the product for method 8011D analysis (DRO/GRO/MRO).

ADDITIONAL NOTES:

Used a 2" bailer to collect the hydrocarbon layer in the well - bailed approximately 2.5 gallons of product. Bailed a total of 10 gallons of water.

RW-2 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	9/13/2016	Product Thickness (ft)	0.000	Partly cloudy, breezy
GAUGE TIME	830	Volume of Product Purged (Gallons)	N/A	
DTB (feet) Depth to Bottom	39.80	Volume of Water Purged (Gallons)	20	WATER APPEARANCE
		PURGE DATE	N/A	Clear - cloudy - brown at end of purge - slight odor
DTP (feet) Depth to Product	0.00	PURGE TIME	N/A	
DTW (feet) Depth to Water	22.47	SAMPLE DAY	9/13/2016	
DTB - DTW	17.33	SAMPLE TIME	900	
WELL PURGING				Notes
START DATE	START TIME	END DATE	END TIME	Bailed 20 gallons - samples collected.
N/A				

ADDITIONAL NOTES:

Purged water disposed of upstream of WWTP.

INSTRUMENTS USED:
YSI 556 MPS Instrument with flow cell. Used to collect water quality parameters.
WaterMark oil Water Interface Meter (100 ft), Model 101L/SMOIL, S/N 01-5509
Submersible bladder pump, Grundfos Redi-flo 2, 2" and an adjustable rate controller.
5 gallon buckets to catch purge water.
Dedicated portable pump used for RW-1

SIGNATURE: /s/ *Cheryl Johnson* / Environmental Specialist

WESTERN REFINING - GALLUP REFINERY
2016 QUARTERLY INSPECTION

RW-5 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	9/13/2016	Product Thickness (ft)	0.000	Ptly cloudy, breezy
GAUGE TIME	910	Volume of Product Purged (Gallons)	N/A	
DTB (feet) Depth to Bottom	39.59	Volume of Water Purged (Gallons)	20	**WATER APPEARANCE**
		PURGE DATE		Clear - cloudy - gray - sheen - odor. No measurable layer.
DTP (feet) Depth to Product	0.00	PURGE TIME		
DTW (feet) Depth to Water	27.70	SAMPLE DAY	9/13/2016	
DTB - DTW	11.89	SAMPLE TIME	940	
WELL PURGING				**Notes**
START DATE	START TIME	END DATE	END TIME	No measurable product layer - bailed 20 gallons - samples collected.

ADDITIONAL NOTES:

Purged water disposed of upstream of the WWTP.

RW-6 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	9/13/2016	Product Thickness (ft)	0.000	Ptly cloudy, breezy
GAUGE TIME	950	Volume of Product Purged (Gallons)	N/A	
DTB (feet) Depth to Bottom	40.90	Volume of Water Purged (Gallons)	20	**WATER APPEARANCE**
		PURGE DATE		Clear - cloudy - sheen - odor
DTP (feet) Depth to Product	0.00	PURGE TIME		
DTW (feet) Depth to Water	27.99	SAMPLE DAY	9/13/2016	
DTB - DTW	12.91	SAMPLE TIME	1025	
WELL PURGING				**Notes**
START DATE	START TIME	END DATE	END TIME	Bailed 20 gallons - samples collected.

ADDITIONAL NOTES:

Purged water disposed of upstream of the WWTP.

INSTRUMENTS USED:
YSI 556 MPS Instrument with flow cell. Used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Submersible bladder pump, Grundfos Redi-flo 2, 2" and an adjustable rate controller.
5 gallon buckets to catch purge water.
3 foot disposable bailer.

SIGNATURE: /s/ *Cheryl Johnson* / Environmental Specialist

WESTERN REFINING - GALLUP REFINERY
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BW-1A		TEST PARAMETERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	9/8/2016	(1)								
GAUGE TIME	1025	(2)	None taken - well is DRY							
DTB (feet) Depth to Bottom	46.06	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	DRY									
DTB - DTW Capacity per foot 2 Well Volumes	0.163									
PURGE DATE	NA									
PURGE TIME	NA									
SAMPLE DAY	N/A									
SAMPLE TIME										

WEATHER CONDITIONS

Partly cloudy, calm, 60-65 deg F.

WATER APPEARANCE

DRY

SAMPLE LOG

BW-1B		TEST PARAMETERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	9/8/2016	(1)								
GAUGE TIME	1030	(2)	None taken - well is DRY							
DTB (feet) Depth to Bottom	76.29	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	DRY									
DTB - DTW Capacity per foot 2 Well Volumes	0.163									
PURGE DATE	NA									
PURGE TIME	NA									
SAMPLE DAY	N/A									
SAMPLE TIME										

WEATHER CONDITIONS

Partly cloudy, calm, 60-65 deg F.

WATER APPEARANCE

DRY

SAMPLE LOG

INSTRUMENTS USED:
Plastic dipper

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
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BW-1C	
GAUGE DATE	9/8/2016
GAUGE TIME	1027
DTB (feet) Depth to Bottom	141.89
DEDICATED PUMP	Y
DTW (feet) Depth to Water	12.55
DTB - DTW	129.34
Capacity per foot	0.163
3 Well Volumes	63.25
PURGE DATE	9/8/2016
PURGE TIME	1605
SAMPLE DAY	9/8/2016
SAMPLE TIME	1645

TEST PARAMETERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1630	5.68	15.5	70075	45.549	47.94	40.5	-149
(2)	1632	5.53	15.6	70349	45.727	48.16	23.6	-152
(3)	1634	5.51	15.8	70575	45.874	48.34	16.5	-150
(4)	1636	5.51	16.0	70777	46.005	48.51	12.9	-147

WEATHER CONDITIONS

Partly cloudy, calm, 60-65 deg F.

WATER APPEARANCE

Clear - no odor detected.

SAMPLE LOG

Pump lost suction at 20 gallons - allowed to recharge and collected samples. Purged water collected in plastic container and disposed of upstreat of the WWT plant.

BW-2A	
GAUGE DATE	9/8/2016
GAUGE TIME	904
DTB (feet) Depth to Bottom	67.57
DEDICATED PUMP	Y
DTW (feet) Depth to Water	32.29
DTB - DTW	35.28
Capacity per foot	0.163
3 Well Volumes	17.25
PURGE DATE	9/8/2016
PURGE TIME	914
SAMPLE DAY	9/8/2016
SAMPLE TIME	940

TEST PARAMETERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	931	4.77	13.4	70564	45.867	48.21	18.0	-104
(2)	933	4.78	13.6	70558	45.863	48.21	14.9	-102
(3)	935	4.78	13.6	70576	45.874	48.23	12.9	-96
(4)	937	4.79	13.8	70564	45.866	48.23	11.8	-94

WEATHER CONDITIONS

Partly Cloudy, slight breeze, 60-65 Deg F.

WATER APPEARANCE

clear, slight yellow tint

SAMPLE LOG

Purged water collected in 55 gallon drum and disposed of upstream of the WWT plant.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Polyethylene Bailer

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

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BW-2B	
GAUGE DATE	9/8/2016
GAUGE TIME	908
DTB (feet) Depth to Bottom	92.26
DEDICATED PUMP	Y
DTW (feet) Depth to Water	27.84
DTB - DTW	64.42
Capacity per foot	0.163
3 Well Volumes	31.50
PURGE DATE	9/8/2016
PURGE TIME	935
SAMPLE DAY	9/8/2016
SAMPLE TIME	1006

TEST PARAMETERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1000	4.90	14.2	117040	76.076	87.22	10.2	-65
(2)	1002	4.91	14.2	117138	76.140	87.32	9.5	-61
(3)	1004	4.91	14.3	117206	76.184	87.39	9.2	-59
(4)	1006	4.91	14.3	117209	76.186	87.39	8.9	-58

WEATHER CONDITIONS

Partly Cloudy, calm, 70-75 Deg F.

WATER APPEARANCE

Clear - no odor detected.

SAMPLE LOG

Purged water collected in 55 gallon drums and disposed of upstream of the WW treatment Plant.

BW-2C	
GAUGE DATE	9/8/2016
GAUGE TIME	900
DTB (feet) Depth to Bottom	152.84
DEDICATED PUMP	N
DTW (feet) Depth to Water	20.63
DTB - DTW	132.21
Capacity per foot	0.163
3 Well Volumes	64.65
PURGE DATE	9/8/2016
PURGE TIME	1135
SAMPLE DAY	9/8/2016
SAMPLE TIME	1225

TEST PARAMETERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1215	5.73	15.0	69933	45.456	47.81	44.3	-9
(2)	1217	5.75	15.3	69991	45.494	47.87	37.1	-11
(3)	1219	5.77	15.5	70011	45.507	47.89	34.7	-12
(4)	1221	5.81	15.8	70061	45.539	47.94	33.9	-12

WEATHER CONDITIONS

Partly Cloudy, breezy, 70-75 Deg F.

WATER APPEARANCE

Clear - no odor detected.

SAMPLE LOG

Started purge - pump lost suction after 11 gallons. Stopped - allowed well to recharge before collecting samples. Purged water collected in 55 gallon drums and disposed of upstream of the WW treatment Plant.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Bailer

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
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BW-3A		TEST PARAMETERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	9/8/2016	(1)								
GAUGE TIME	1245	(2)	None taken - well is DRY							
DTB (feet) Depth to Bottom	52.35	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	DRY	WEATHER CONDITIONS								
DTB - DTW Capacity per foot	0.163	Partly cloudy, breezy, 75-80 Deg F.								
2 Well Volumes										
PURGE DATE	NA	WATER APPEARANCE								
PURGE TIME	NA									
SAMPLE DAY	N/A	Not Applicable								
SAMPLE TIME										

SAMPLE LOG

BW-3B		TEST PARAMETERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	9/8/2016	(1)	1349	5.99	18.1	79562	51.715	55.56	10.1	-173
GAUGE TIME	1244	(2)	1351	5.09	18.2	480	0.312	0.23	54.7	-32
DTB (feet) Depth to Bottom	69.40	(3)	1353	5.07	18.2	428	0.278	0.21	55.4	-30
DEDICATED PUMP	Y	(4)								
DTW (feet) Depth to Water	33.42	WEATHER CONDITIONS								
DTB - DTW	35.98	Partly cloudy, breezy, 75-80 Deg F.								
Capacity per foot	0.163									
3 Well Volumes	17.59									
PURGE DATE	9/8/2016	WATER APPEARANCE								
PURGE TIME	1335									
SAMPLE DAY	9/8/2016									
SAMPLE TIME	1355	Clear - cloudy with slight yellow tint - no odor detected.								

SAMPLE LOG

Purged water collected in 55 gallon drums and disposed of upstream of the WW treatment Plant.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Bailer

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
3RD QTR/ANNUAL 2015

BW-3C	
GAUGE DATE	9/8/2016
GAUGE TIME	1246
DTB (feet) Depth to Bottom	154.55
DEDICATED PUMP	N
DTW (feet) Depth to Water	8.30
DTB - DTW	146.25
Capacity per foot	0.163
3 Well Volumes	71.52
PURGE DATE	9/8/2016
PURGE TIME	1255
SAMPLE DAY	9/8/2016
SAMPLE TIME	1430

TEST PARAMETERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1420	7.29	25.7	3180	2.067	1.66	228.8	20
(2)								
(3)	Did not record remainder of parameters							
(4)								

WEATHER CONDITIONS

Partly cloudy, breezy, 75-80 Deg F.

WATER APPEARANCE

Clear-cloudy no odor detected.

SAMPLE LOG

Purged water collected in 55 gallon drums and disposed of upstream of the WW treatment Plant.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
3RD QTR/ANNUAL 2016

MW-1	
GAUGE DATE	9/7/2016
GAUGE TIME	835
DTB (feet) Depth to Bottom	130.83
DEDICATED PUMP	Y
DTW (feet) Depth to Water	7.01
DTB - DTW	123.82
Capacity per foot	1.020
3 Well Volumes	378.89
PURGE DATE	9/7/2016
PURGE TIME	840
SAMPLE DAY	9/7/2016
SAMPLE TIME	1030

TEST PARAMETERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1021	8.32	14.6	57855	37.606	38.56	37.1	14
(2)	1023	8.33	14.7	57827	37.588	38.55	29.5	13
(3)	1025	8.30	14.8	57884	37.625	38.59	25.0	12
(4)	1027	8.31	14.9	57900	37.635	38.61	22.1	11

WEATHER CONDITIONS

Cloudy, calm, 60-65 deg F.

WATER APPEARANCE

Clear - no odor detected.

SAMPLE LOG

Purged water collected in 350 gallon tote and disposed of upstream of the WW treatment Plant.

MW-2	
GAUGE DATE	9/7/2016
GAUGE TIME	1047
DTB (feet) Depth to Bottom	137.48
DEDICATED PUMP	Y
DTW (feet) Depth to Water	14.10
DTB - DTW	123.38
Capacity per foot	1.020
3 Well Volumes	377.54
PURGE DATE	9/7/2016
PURGE TIME	1100
SAMPLE DAY	9/7/2016
SAMPLE TIME	1400

TEST PARAMETERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1352	5.90	14.8	59064	38.392	39.48	15.4	-4
(2)	1354	5.88	15.0	59103	38.417	39.52	14.2	-5
(3)	1356	5.89	15.2	59114	38.424	39.53	13.6	-5
(4)	1358	5.92	15.4	59102	38.416	39.53	12.8	-4

WEATHER CONDITIONS

Clear, slight breeze, 60-65 Deg F.

WATER APPEARANCE

Clear - no odor detected.

SAMPLE LOG

Purged water collected in 350 gallon tote and disposed of upstream of the WW treatment Plant.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
3RD QTR/ANNUAL 2016

MW-4	
GAUGE DATE	9/7/2016
GAUGE TIME	1630
DTB (feet) Depth to Bottom	121.72
DEDICATED PUMP	Y
DTW (feet) Depth to Water	7.38
DTB - DTW	114.34
Capacity per foot	1.020
3 Well Volumes	349.88
PURGE DATE	9/7/2016
PURGE TIME	1630
SAMPLE DAY	9/7/2016
SAMPLE TIME	1740

TEST PARAMETERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1730	5.51	13.6	61522	39.989	41.28	52.8	-12
(2)	1732	5.45	13.7	61600	40.079	41.39	33.6	-12
(3)	1734	5.44	13.8	61740	40.131	41.46	23.9	-12
(4)	1736	5.44	14.0	61763	40.146	41.48	18.6	-11

WEATHER CONDITIONS

Cloudy, breezy, 70-75 deg F.

WATER APPEARANCE

Clear - no odor detected.

SAMPLE LOG

Purged water collected in 350 gallon tote and disposed of upstream of the WW treatment Plant.

MW-5	
GAUGE DATE	9/7/2016
GAUGE TIME	1415
DTB (feet) Depth to Bottom	130.83
DEDICATED PUMP	Y
DTW (feet) Depth to Water	13.50
DTB - DTW	117.33
Capacity per foot	0.740
3 Well Volumes	260.47
PURGE DATE	9/7/2016
PURGE TIME	1420
SAMPLE DAY	9/7/2016
SAMPLE TIME	1545

TEST PARAMETERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1533	6.47	13.5	61063	39.691	40.93	433.4	-26
(2)	1535	5.73	13.4	59481	38.663	39.73	90.2	-12
(3)	1537	5.64	13.5	59338	38.570	39.63	50.7	-11
(4)	1539	5.62	13.6	59317	38.556	39.62	33.3	-11

WEATHER CONDITIONS

Cloudy, breezy, 70-75 deg F.

WATER APPEARANCE

Clear - no odor detected.

SAMPLE LOG

Purged water collected in 350 gallon tote and disposed of upstream of the WW treatment Plant.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Signature: _____

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
3RD QTR/ANNUAL 2016

SMW-2	
GAUGE DATE	9/9/2016
GAUGE TIME	1215
DTB (feet) Depth to Bottom	52.80
DEDICATED PUMP	Y
DTW (feet) Depth to Water	24.84
DTB - DTW	27.96
Capacity per foot	0.163
3 Well Volumes	13.67244
PURGE DATE	9/9/2016
PURGE TIME	1220
SAMPLE DAY	9/9/2016
SAMPLE TIME	1245

TEST PARAMETERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1235	5.43	16.0	579730	376.825	1017.92	79.9	-31
(2)	1237	5.14	16.2	579604	376.743	1017.79	49.0	-19
(3)	1239	5.17	16.6	579105	376.418	1016.46	37.7	-12
(4)	1241	5.20	16.8	579615	376.750	1018.59	31.8	-6

WEATHER CONDITIONS

Partly Cloudy, breezy,70-75 Deg F.

WATER APPEARANCE

Clear - no odor detected.

SAMPLE LOG

Pump lost suction at 7 gallons. Allowed to recharge and collected samples. Purged water collected in 55 gallon drums and disposed of upstream of the WW treatment Plant.

SMW-4	
GAUGE DATE	9/6/2016
GAUGE TIME	1431
DTB (feet) Depth to Bottom	69.68
DEDICATED PUMP	Y
DTW (feet) Depth to Water	29.32
DTB - DTW	40.36
Capacity per foot	0.163
3 Well Volumes	19.74
PURGE DATE	9/7/2016
PURGE TIME	800
SAMPLE DAY	9/7/2016
SAMPLE TIME	830

TEST PARAMETERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	821	7.89	14.1	67059	43.588	45.53	90.6	24
(2)	823	7.86	14.1	66906	43.489	45.42	59.8	28
(3)	825	7.83	14.2	66861	43.460	45.39	45.9	30
(4)	827	7.80	14.2	66891	43.479	45.41	38.0	32

WEATHER CONDITIONS

Partly Cloudy, breezy, 90-95 Deg F.

WATER APPEARANCE

Clear - no odor detected.

SAMPLE LOG

9/9/16 - Generator failed during purging of well. Stopped with purge. Restarted with purge on 9/7/16 with new generator. Purged water collected in 55 gallon drums and disposed of upstream of the WW treatment Plant.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Bailer

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY

4TH QTR 2016

OW-13	
GAUGE DATE	11/15/2016
GAUGE TIME	930
DTB (feet) Depth to Bottom	99.15
DEDICATED PUMP	Y
DTW (feet) Depth to Water	21.68
DTB - DTW	77.47
Capacity per foot	0.740
3 Well Volumes	171.98
PURGE DATE	11/15/2016
PURGE TIME	935
SAMPLE DAY	11/15/2016
SAMPLE TIME	1035
PUMP DEPTH	80 ft
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1027	7.87	13.34	65592	42.635	44.37	24.1	-64.3
(2)	1029	7.86	13.39	65562	42.615	44.35	23.3	-62.7
(3)	1031	7.85	13.45	65541	42.602	44.33	22.4	-60.7
(4)	1033	7.85	13.49	65533	42.596	44.33	22	-58.4

WEATHER CONDITIONS

Clear, calm

WATER APPEARANCE

Clear, no odor

SAMPLE LOG

Purged water collected in 55 gallon drums and disposed of upstream of the WW treatment Plant.

OW-14	
GAUGE DATE	11/15/2016
GAUGE TIME	900
DTB (feet) Depth to Bottom	46.52
DEDICATED PUMP	Y
DTW (feet) Depth to Water	23.28
DTB - DTW	23.24
Capacity per foot	0.740
3 Well Volumes	51.59
PURGE DATE	11/15/2016
PURGE TIME	905
SAMPLE DAY	11/15/2016
SAMPLE TIME	920
PUMP DEPTH	30 ft
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	911	8.17	13.53	114008	74.105	84.40	94.9	-172.8
(2)	913	7.84	13.42	112145	72.894	82.73	59.8	-170.5
(3)	915	7.67	13.35	111533	72.497	82.17	40.6	-169.5
(4)	917	7.56	13.31	111006	72.154	81.70	29.7	-165.9

WEATHER CONDITIONS

Partly cloudy, breezy, 70-75 Deg F.

WATER APPEARANCE

Clear, no odor

SAMPLE LOG

Purged water collected in 55 gallon drums and disposed of upstream of the WW treatment Plant.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Dedicated pumps

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
4TH QTR 2016

OW-29	
GAUGE DATE	11/15/2016
GAUGE TIME	1100
DTB (feet) Depth to Bottom	51.08
DEDICATED PUMP	Y
DTW (feet) Depth to Water	18.23
DTB - DTW	32.85
Capacity per foot	0.740
3 Well Volumes	72.93
PURGE DATE	11/15/2016
PURGE TIME	1104
SAMPLE DAY	11/15/2016
SAMPLE TIME	1140
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperalure Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1130	8.06	13.28	99923	64.950	72.09	93.5	-72.1
(2)	1132	7.81	13.35	99684	64.794	71.90	55.8	-69.3
(3)	1134	7.69	13.44	99618	64.752	71.86	38.1	-67.9
(4)	1136	7.57	13.55	99591	64.734	71.84	28.2	-66.5

WEATHER CONDITIONS

Clear, calm

WATER APPEARANCE

Clear, no odor detected

SAMPLE LOG

OW-30	
GAUGE DATE	11/14/2016
GAUGE TIME	820
DTB (feet) Depth to Bottom	49.90
DEDICATED PUMP	Y
DTW (feet) Depth to Water	22.75
DTB - DTW	27.15
Capacity per foot	0.740
3 Well Volumes	60.27
PURGE DATE	11/14/2016
PURGE TIME	825
SAMPLE DAY	11/14/2016
SAMPLE TIME	905
PUMP DEPTH	38 ft
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperalure Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	856	7.90	10.70	103949	67.567	75.11	16.6	-17.0
(2)	858	7.90	10.35	104383	67.849	75.40	14.8	-15.7
(3)	900	8.60	15.48	143942	93.562	112.82	91.5	-20.1
(4)	902	8.60	15.48	143942	93.562	112.82	91.5	-20.1

WEATHER CONDITIONS

Clear, calm

WATER APPEARANCE

Clear, no odor detected

SAMPLE LOG

Purged water collected in 55 gallon drums and disposed of upstream of the WW treatment Plant.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Dedicated pumps

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
4TH QTR 2016

OW-1

GAUGE DATE	11/15/2016
GAUGE TIME	1155
DTB (feet) Depth to Bottom	94.55
DEDICATED PUMP	Y
DTW (feet) Depth to Water	1.72
DTB - DTW	94.55
Capacity per foot	0.740
3 Well Volumes	209.90
PURGE DATE	11/15/2016
PURGE TIME	1200
SAMPLE DAY	11/15/2016
SAMPLE TIME	1305
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1252	8.08	14.21	70893.000	46.081	48.510	35.7	-34.1
(2)	1254	8.09	14.44	71112.000	46.223	48.700	28	-34.0
(3)	1256	8.08	14.52	71125.000	46.232	48.710	24.3	-32.7
(4)	1258	8.06	14.60	71173.000	46.263	48.750	21.4	-30.7

WEATHER CONDITIONS

Clear, calm

WATER APPEARANCE

Clear slightly cloudy - pink

SAMPLE LOG

OW-10

GAUGE DATE	11/15/2016
GAUGE TIME	1315
DTB (feet) Depth to Bottom	60.33
DEDICATED PUMP	Y
DTW (feet) Depth to Water	0.54
DTB - DTW	59.79
Capacity per foot	0.740
3 Well Volumes	132.73
PURGE DATE	11/15/2016
PURGE TIME	1320
SAMPLE DAY	11/15/2016
SAMPLE TIME	1420
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1409	8.28	14.02	177531	115.395	147.43	464	-7.3
(2)	1411	7.75	13.40	174180	113.217	143.57	94.9	-10.0
(3)	1413	7.60	13.44	173904	113.038	143.28	59.5	-10.5
(4)	1415	7.52	13.50	173865	113.012	143.26	41.0	-10.5

Clear, calm

WATER APPEARANCE

Clear, no odor detected.

SAMPLE LOG

Purged water collected in 300 gallon tote and disposed of upstream of the WW treatment Plant.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
bailer.

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY

4TH QTR 2016

NAPIS-3	
GAUGE DATE	11/14/2016
GAUGE TIME	1047
DTB (feet) Depth to Bottom	30.42
DTW (feet) Depth to Water	9.11
DTB - DTW	21.31
Capacity per foot	0.163
3 Well Volumes	10.42
PURGE DATE	11/14/2016
PURGE TIME	1106
SAMPLE DAY	11/14/2016
SAMPLE TIME	1340
Depth to Product	
Product Layer	

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1330	8.11	19.36	135376	87.994	104.94	33.2	-44.6
(2)	1332	8.07	19.38	135244	87.909	104.81	31.6	-43.7
(3)	1334	8.04	19.37	135243	87.908	104.81	30.2	-42.8
(4)	1336	8.02	19.33	135363	87.986	104.92	29.0	-41.8

WEATHER CONDITIONS

Clear, slight breeze

WATER APPEARANCE

Clear slight pink to brown/murky at end of bailing

SAMPLE LOG

With new bailer, bailed 10 gallons - allowed well to recharge as water at end of bailing was murky/muddy. Collected purged water in a container and disposed of at the bundle pad.

KA-3	
GAUGE DATE	11/14/2016
GAUGE TIME	1046
DTB (feet) Depth to Bottom	23.20
DTW (feet) Depth to Water	8.28
DTB - DTW	14.92
Capacity per foot	0.163
3 Well Volumes	7.30
PURGE DATE	11/14/2016
PURGE TIME	1055
SAMPLE DAY	11/14/2016
SAMPLE TIME	1145
Depth to Product	
Product Layer	

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1138	7.74	26.60	88384.000	57.450	62.76	25.2	-63.3
(2)	1140	7.65	26.42	88483.000	57.514	62.84	21.8	-58.3
(3)	1142	7.62	26.26	88347.000	57.426	62.74	19.4	-51.7
(4)	1144	7.60	26.07	88299.000	57.395	62.70	18.1	-43.4

WEATHER CONDITIONS

Clear, calm, 60-65 deg F

WATER APPEARANCE

Clear - slightly cloudy, turned pink at end of bailing

SAMPLE LOG

With new bailer, bailed approx. 7 gallons. Collected purged water in a container and disposed of at the bundle pad. Collected duplicate samples.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Polyethylene Bailer

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY

4TH QTR 2016

NAPIS-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/14/2016	(1)	1224	8.10	18.32	96415.000	62.670	69.53	55.9	-21.4
GAUGE TIME	1207	(2)	1226	7.92	18.30	96414.000	62.669	69.52	38.2	-18.1
DTB (FT) Depth to Bottom	13.53	(3)	1228	7.82	18.27	96438.000	62.685	69.54	29.7	-16.2
DTW (FT) Depth to Water	6.82	(4)	1230							
DTB - DTW	6.71									
Capacity per foot	0.163									
3 Well Volumes	3.28									
PURGE DATE	11/14/2016									
PURGE TIME	1215									
SAMPLE DAY	11/14/2016									
SAMPLE TIME	1231									
Depth to Product										
Product Layer										

WEATHER CONDITIONS

Clear, slight odor

WATER APPEARANCE

Clear, no odor detected

SAMPLE LOG

Used new bailer for purging and collecting samples. Purged water collected in a plastic container and disposed of at the bundle pad.

NAPIS-2		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/14/2016	(1)		7.82	26.21	113547.00	73.806	84.61	29.1	-121.6
GAUGE TIME	1045	(2)		7.72	26.09	113553.00	73.809	84.62	19.5	-114.0
DTB (FT) Depth to Bottom	13.61	(3)		7.68	25.95	113438.00	73.735	84.52	15.3	-117.8
DTW (FT) Depth to Water	8.20	(4)		7.65	25.79	113330.00	73.664	84.43	12.8	-130.6
DTB - DTW	5.41									
Capacity per foot	0.163									
3 Well Volumes	2.65									
PURGE DATE	11/14/2016									
PURGE TIME	1050									
SAMPLE DAY	11/14/2016									
SAMPLE TIME	1135									
Depth to Product										
Product Layer										

WEATHER CONDITIONS

Clear, slight breeze, 50-55 Deg F.

WATER APPEARANCE

Clear, cloudy, pink end of bailing

SAMPLE LOG

With new bailer, bailed approx 3 gallons. Collected purged water in a container and disposed of at the bundle pad.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer
Disposable Polyethylene Bailer

Signature: _____

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
4TH QTR 2016

OAPIS-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/14/2016	(1)		7.54	16.58	353791	229.964	411.69	69.0	-134.7
GAUGE TIME	1245	(2)		7.42	16.71	353795	229.969	411.64	25.3	-119.5
DTB (feet) Depth to Bottom	26.00	(3)		7.35	16.85	353923	230.050	411.98	19.1	-112.6
DTW (feet) Depth to Water	11.44	(4)		7.30	17.00	354103	230.167	412.43	15.2	-107.0
DTB - DTW	14.56									
Capacity per foot	0.163									
3 Well Volumes	7.12									
PURGE DATE	11/14/2016									
PURGE TIME	1250									
SAMPLE DAY	11/14/2016									
SAMPLE TIME	1305									
Depth to Product										
Product Layer										

WEATHER CONDITIONS

Clear, breezy

WATER APPEARANCE

Clear with slight yellow/orange tint, odor detected

SAMPLE LOG

Used new bailer to purge and collect samples. Purged water collected in a plastic container and disposed of at the bundle pad.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Polyethylene Bailer

Signature: _____

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
4TH QTR 2016

GWM-2		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/14/2016	(1)								
GAUGE TIME	1527	(2)	Not Applicable							
DTB (feet) Depth to Bottom	18.81	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	DRY									
DTB - DTW Capacity per foot 2 Well Volumes	0.163									
PURGE DATE PURGE TIME										
SAMPLE DAY SAMPLE TIME										
Depth to Product Product Layer										

WEATHER CONDITIONS

Clear, breezy

WATER APPEARANCE

Not Applicable - DRY

SAMPLE LOG

GWM-3		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/14/2016	(1)								
GAUGE TIME	1525	(2)	Not Applicable							
DTB (feet) Depth to Bottom	17.80	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	DRY									
DTB - DTW Capacity per foot 2 Well Volumes	0.163									
PURGE DATE PURGE TIME										
SAMPLE DAY SAMPLE TIME										
Depth to Product Product Layer										

WEATHER CONDITIONS

Clear, breezy

WATER APPEARANCE

Not Applicable - DRY

SAMPLE LOG

INSTRUMENTS USED:
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY

4TH QTR 2016

Oil Sump LDU		**WEATHER CONDITIONS**
GAUGE DATE	11/17/2016	Partly cloudy, breezy, 65-70 Deg F
GAUGE TIME	948	**WATER APPEARANCE**
DTB (feet) Depth to Bottom	NA	
DTW (feet) Depth to Water	DRY	
DTB - DTW	NA	**NOTES**
PURGE DATE	NA	No samples collected - dry
PURGE TIME	NA	
SAMPLE DATE		
SAMPLE TIME		

East LDU		**WEATHER CONDITIONS**
GAUGE DATE	11/17/2016	Ptly cloudy, breezy
GAUGE TIME	945	**WATER APPEARANCE**
DTB (feet) Depth to Bottom	NA	oily - yellow - gray - odor
DTW (feet) Depth to Water	9.10	
DTB - DTW	NA	**NOTES**
PURGE DATE	NA	Collected Grab Sample
PURGE TIME	NA	
SAMPLE DATE	11/17/2016	
SAMPLE TIME	1015	

West LDU		**WEATHER CONDITIONS**
GAUGE DATE	11/17/2016	Partly cloudy, breezy
GAUGE TIME	947	**WATER APPEARANCE**
DTB (feet) Depth to Bottom	NA	oily - yellow - odor
DTW (feet) Depth to Water	7.30	
DTB - DTW	NA	**NOTES**
PURGE DATE	NA	Collected grab sample
PURGE TIME	NA	
SAMPLE DATE	11/17/2016	
SAMPLE TIME	1030	

INSTRUMENTS USED:
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Polyethylene Bailer

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
4TH QTR 2016

STP1-NW

GAUGE DATE	11/14/2016
GAUGE TIME	1420
DTB (feet) Depth to Bottom	50.00
DTW (feet) Depth to Water	21.02
DTB - DTW	28.98
Capacity per foot	0.163
3 Well Volumes	14.17
PURGE DATE	11/14/2016
PURGE TIME	1430
SAMPLE DAY	11/14/2016
SAMPLE TIME	1500
Depth to Product	NONE
Product Layer	

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1446	7.47	13.4	373550	242.800	447.73	23.7	-17
(2)	1448	7.47	13.4	373646	242.900	447.93	22.3	-17
(3)	1450	7.48	13.4	373689	242.900	448.04	21.4	-16
(4)	1452	7.47	13.4	373699	242.900	448.10	21.2	-16

WEATHER CONDITIONS

Clear, Breezy

WATER APPEARANCE

Clear, no odor detected

SAMPLE LOG

Used new bailer to purge and collect samples. Purged water collected in a plastic container and disposed of at the bundle pad.

STP1-SW

GAUGE DATE	11/14/2016
GAUGE TIME	1505
DTB (feet) Depth to Bottom	29.10
DTW (feet) Depth to Water	DRY
DTB - DTW	N/A
Capacity per foot	0.163
3 Well Volumes	N/A
PURGE DATE	
PURGE TIME	
SAMPLE DAY	
SAMPLE TIME	
Depth to Product	
Product Layer	

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)								
(2)								
(3)								
(4)								

WEATHER CONDITIONS

Clear, Breezy

WATER APPEARANCE

Not Applicable - DRY

SAMPLE LOG

INSTRUMENTS USED:
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Polyethylene Bailer

Signature:

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
2016 QUARTERLY INSPECTION

RW-5 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	11/16/2016	Product Thickness (ft)	0.000	Overcast, breezy
GAUGE TIME	912	Volume of Product Purged (Gallons)	N/A	
DTB (feet) Depth to Bottom	39.59	Volume of Water Purged (Gallons)	20	**WATER APPEARANCE**
		PURGE DATE		Clear, slight yellow tint - gray, odor
DTP (feet) Depth to Product	0.00	PURGE TIME		
DTW (feet) Depth to Water	27.40	SAMPLE DAY	11/16/2016	
DTB - DTW	12.19	SAMPLE TIME	937	
WELL PURGING				**Notes**
START DATE	START TIME	END DATE	END TIME	No measurable product layer - bailed 20 gallons - samples collected.

ADDITIONAL NOTES:

Purged water disposed of upstream of the WWTP.

RW-6 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	11/16/2016	Product Thickness (ft)	0.000	Overcast, breezy
GAUGE TIME	915	Volume of Product Purged (Gallons)	N/A	
DTB (feet) Depth to Bottom	40.90	Volume of Water Purged (Gallons)	20	**WATER APPEARANCE**
		PURGE DATE		Clear - cloudy - gray - sheen - odor
DTP (feet) Depth to Product	0.00	PURGE TIME		
DTW (feet) Depth to Water	27.72	SAMPLE DAY	11/16/2016	
DTB - DTW	13.18	SAMPLE TIME	944	
WELL PURGING				**Notes**
START DATE	START TIME	END DATE	END TIME	Bailed 20 gallons - samples collected.

ADDITIONAL NOTES:

Purged water disposed of upstream of the WWTP.

INSTRUMENTS USED:
YSI 556 MPS Instrument with flow cell. Used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Submersible bladder pump, Grundfos Redi-flo 2, 2" and an adjustable rate controller.
5 gallon buckets to catch purge water.
3 foot disposable bailer.

SIGNATURE: /s/ *Cheryl Johnson* / Environmental Specialist

WESTERN REFINING - GALLUP REFINERY
4TH QTR 2016

GWM-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/14/2016	(1)								
GAUGE TIME	1529	(2)	Not required							
DTB (feet) Depth to Bottom	26.20	(3)								
DTW (feet) Depth to Water	21.52	(4)								
DTB - DTW	4.68									
Capacity per foot	0.163									
3 Well Volumes	1.53									
PURGE DATE	N/A									
PURGE TIME										
SAMPLE DAY	N/A									
SAMPLE TIME										
Depth to Product	21.5									
Product Layer	0.02									

WEATHER CONDITIONS
Clear, breezy

WATER APPEARANCE
layer of hydrocarbons - yellow - oily - odor

SAMPLE LOG
NO SAMPLES COLLECTED - HYDROCARBON LAYER

INSTRUMENTS USED:
YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable Polyethylene Bailer

Signature: _____

Cheryl Johnson / Environmental Specialist / Gallup Refinery

WESTERN REFINING - GALLUP REFINERY
4TH QTR 2016

RW-1 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	11/16/2016	Product Thickness (ft)	3.100	Overcast, breezy
GAUGE TIME	1300	Volume of Product Purged (Gallons)	2.500	
DTB (feet) Depth to Bottom	43.04	Volume of Water Purged (Gallons)	15	**WATER APPEARANCE**
		PURGE DATE		Yellow with sheen and odor
DTP (feet) Depth to Product	27.80	PURGE TIME		
DTW (feet) Depth to Water	30.90	SAMPLE DAY	N/A	
DTB - DTW	12.14	SAMPLE TIME	N/A	
WELL PURGING				**Notes**
START DATE	START TIME	END DATE	END TIME	No samples collected - bailed for product recovery only.

ADDITIONAL NOTES:

Purged water collected in a 55 gallon drum.

RW-2 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	11/16/2016	Product Thickness (ft)	0.000	Overcast, breezy
GAUGE TIME	1130	Volume of Product Purged (Gallons)	N/A	
DTB (feet) Depth to Bottom	39.80	Volume of Water Purged (Gallons)	25	**WATER APPEARANCE**
		PURGE DATE	11/16/2016	Clear - cloudy - pink/brown - sheen, odor
DTP (feet) Depth to Product	0.00	PURGE TIME	1132	
DTW (feet) Depth to Water	22.22	SAMPLE DAY	11/16/2016	
DTB - DTW	17.58	SAMPLE TIME	1210	
WELL PURGING				**Notes**
START DATE	START TIME	END DATE	END TIME	Bailed 25 gallons - samples collected.
N/A				

ADDITIONAL NOTES:

Purged water disposed of upstream of WWTP.

INSTRUMENTS USED:
YSI 556 MPS Instrument with flow cell. Used to collect water quality parameters.
WaterMark oil Water Interface Meter (100 ft), Model 101L/SMOIL, S/N 01-5509
Submersible bladder pump, Grundfos Redi-flo 2, 2" and an adjustable rate controller.
5 gallon buckets to catch purge water.
Dedicated portable pump used for RW-1

SIGNATURE: /s/ *Cheryl Johnson* / Environmental Specialist

MKTF - FIELD LOGS - 1ST/2ND/3RD/4TH QUARTER 2016

WELL ID	GAUGE DATE	GAUGE TIME	DTP	DTW	DTB	DTB - DTW	CAP/FT	2 WELL VOLs	SAMPLE DATE	SAMPLE TIME	WEATHER CONDITIONS	WATER APPEARANCE	COMMENTS
MKTF-1	02/24/16	850	ND	5.84	17.44	11.60	0.74	17	02/24/16	1010	Partly cloudy, NE wind, 32°	Clear, odor	
MKTF-2	02/24/16	1026	ND	7.22	20.38	13.16	0.74	19	02/24/16	1135	Partly cloudy, NE wind, 36°	Clear, odor	
MKTF-3	02/29/16	1520	8.30	8.40	18.45	10.05	0.74	15	No samples collected			Oily, brown	Product layer = 0.10 ft
MKTF-4	02/29/16	756	ND	10.68	22.15	11.47	0.74	17	02/29/16	930	Clear, calm, 34°	Clear to cloudy, odor, sheen	Bailed dry @ 15 gallons - sampled 1 hr later
MKTF-5	02/29/16	844	15.82	16.42	17.76	1.34	0.74	2	No samples collected			Oily, brown	Product layer = 0.60 ft
MKTF-6	02/29/16	849	18.30	19.27	23.77	4.50	0.74	7	No samples collected			Oily, brown	Product layer = 0.97 ft
MKTF-7	02/29/16	855	12.65	15.53	17.63	2.10	0.74	3	No samples collected			Oily, brown	Product layer = 2.88 ft
MKTF-8	02/29/16	1206	13.85	14.60	21.98	7.38	0.74	11	No samples collected			Oily, brown	Product layer = 0.75 ft
MKTF-9	02/29/16	1235	ND	14.15	22.70	8.55	0.74	13	02/29/16	1330	Cloudy, west wind, 64°	Clear to grey, sheen, odor	
MKTF-10	02/29/16	1115	ND	8.60	16.00	7.40	0.74	11	02/29/16	1700	Cloudy, west wind, 62°	Clear to grey, sheen, odor	Bailed dry @ 5 gallons - sampled 5.5 hrs later
MKTF-11	02/29/16	1000	ND	8.80	18.38	9.58	0.74	14	02/29/16	1050	Clear, west wind, 46°	Clear to dark grey - odor	
MKTF-12	02/25/16	1240	19.80	20.45	25.61	5.16	0.74	8	No samples collected			Oily, brown	Product layer = 0.65 ft
MKTF-13	02/25/16	1234	14.42	15.29	21.23	5.94	0.74	9	No samples collected			Oily, brown	Product layer = 0.87 ft
MKTF-14	02/25/16	1228	7.81	8.25	17.46	9.21	0.74	14	No samples collected			Oily, brown	Product layer = 0.44 ft
MKTF-15	02/29/16	1145	12.23	12.40	19.48	7.08	0.163	2	No samples collected			Oily, brown	Product layer = 0.17 ft
MKTF-16	02/29/16	1348	ND	9.90	14.10	4.20	0.163	1	02/29/16	1425	Clear, west wind, 64°	Clear	
MKTF-17	02/25/16	1508	ND	11.82	24.60	12.78	0.163	4	02/26/16	930	Clear, calm, 57°	Clear to muddy at bottom	Dry after bailing 3 gallons - sampled next day
MKTF-18	02/26/16	1051	ND	8.34	25.50	17.16	0.163	6	02/26/16	1330	Clear, calm, 50°	Clear to brown, odor	Bailed dry @ 3 gallons - sampled 1.5 hrs later
MKTF-19	02/25/16	1352	ND	12.62	17.29	4.67	0.163	2	02/25/16	1440	Clear, calm, 57°	Clear to brown, odor	
MKTF-20	02/29/16	1435	ND	7.81	9.56	1.75	0.74	3	03/01/16	905	Clear, calm, 40°	Clear to black, odor, sheen	Dry after bailing 2 gallons - sampled next day
MKTF-21	02/29/16	1505	ND	7.24	8.82	1.58	0.74	2	03/01/16	840	Clear, calm, 40°	Clear to black, odor, sheen	Dry after bailing 1 gallon - sampled next day
MKTF-22	02/25/16	1010	ND	26.13	35.24	9.11	0.163	3	02/25/16	1055	Clear, light wind, 39°	Clear to brown, odor	
MKTF-23	02/25/16	858	ND	14.67	20.37	5.70	0.163	2	02/25/16	940	Clear, calm, 34°	Clear, odor, sheen	
MKTF-24	02/22/16	1202	ND	21.34	30.45	9.11	0.163	3	02/02/16	1310	Ptly cloudy, west wind, 54°	Clear to reddish brown	
MKTF-25	02/23/16	1150	ND	10.83	19.40	8.57	0.163	3	02/23/16	1225	Cldy, north wind, snow,37°	Clear to light pink, odor	
MKTF-26	02/22/16	1350	ND	8.17	17.16	8.99	0.163	3	02/22/19	1435	Ptly cloudy, north wind, 55°	Clear to brown/cloudy	
MKTF-27	02/22/16	1550	ND	7.20	14.71	7.51	0.163	2	02/22/16	1635	Cldy, north wind, snow,50°	Clear	
MKTF-28	02/23/16	850	ND	5.32	16.14	10.82	0.163	4	02/23/16	935	Cldy, light wind, 34°	Clear	
MKTF-29	02/23/16	1015	ND	1.92	22.80	20.88	0.163	7	02/23/16	1100	Cldy, north wind, snow,34°	Clear	
MKTF-30	02/23/16	1520	ND	14.40	23.18	8.78	0.163	3	02/23/16	1545	Cloudy, snow, 39°	Clear	
MKTF-31	02/23/16	1250	ND	7.95	22.72	14.77	0.163	5	02/23/16	1345	Cloudy, snow, 36°	Clear	
MKTF-32	02/24/16	1508	ND	14.53	27.75	13.22	0.163	4	02/24/16	1550	Clear, light wind, 51°	Clear	
MKTF-33	02/25/16	1116	ND	23.20	33.20	10.00	0.163	3	02/25/16	1155	Clear, calm, 48°	Clear to brown	
MKTF-34	02/25/16	1547	ND	19.20	27.67	8.47	0.163	3	02/25/16	1630	Clear, calm, 61°	Clear	
MKTF-35	02/26/16	1125	ND	8.40	16.45	8.05	0.163	3	02/26/16	1200	Clear, calm, 48°	Clear to brown, odor	
MKTF-36	02/26/16	1230	7.42	7.48	15.45	7.97	0.163	3	No samples collected			Oily, brown	Product layer = 0.06 ft
MKTF-37	02/26/16	955	9.00	9.04	24.65	15.61	0.163	5	No samples collected			Oily, brown	Product layer = 0.04 ft

WELL ID	GAUGE DATE	GAUGE TIME	DTP	DTW	DTB	DTB - DTW	CAP/FT	2 WELL VOLs	SAMPLE DATE	SAMPLE TIME	WEATHER CONDITIONS	WATER APPEARANCE	COMMENTS
MKTF-38	02/29/16	1544	ND	8.63	20.40	11.77	0.163	4	02/29/16	1620	Clear, west wind, 63°	Clear turning to light brown	
MKTF-39	03/03/16	1550	ND	8.50	15.18	6.68	0.163	2	03/03/16	1100	Clear, light wind, 70°	Clear to light gray, odor, sheen	
MKTF-40	02/23/16	1413	ND	13.88	23.60	9.72	0.163	3	02/23/16	1450	Cloudy, snow, 36°	Clear to light pink	
MKTF-41	02/24/16	1610	ND	19.90	40.00	20.10	0.163	7	02/24/16	1650	Calm, clear, 52°	Clear to light brown	
MKTF-42	02/24/16	1357	ND	17.69	33.13	15.44	0.163	5	02/24/16	1450	Clear, light wind, 48°	Clear	
MKTF-43	02/24/16	1304	ND	5.00	15.42	10.42	0.163	3	02/24/16	1340	Clear, calm, 40°	Clear	
MKTF-44	02/24/16	1205	ND	28.74	51.00	22.26	0.163	7	02/24/16	1245	Clear, calm, 40°	Clear to light pink	
MKTF-45	02/26/16	1240	13.39	13.57	30.23	16.66	0.74	25	No samples collected			Oily, brown	Product layer = 0.18 ft

ODOR

PRODUCT

0.74 = 4" 0.163 = 2"

INSTRUMENTS USED:

YSI 556 MPS Instrument for water quality parameters

Water Mark oil-water Interface Meter, Model H01L/S01L, (100 ft)

Disposable Bailers, 2" and 3"

SIGNATURE: _____

Tracy Payne / Disorbo

MKTF - FIELD LOGS - 1ST/2ND/3RD/4TH QUARTER 2016

WELL ID	GAUGE DATE	GAUGE TIME	DTP	DTW	DTB	DTB - DTW	CAP/FT	3 WELL VOLs	SAMPLE DATE	SAMPLE TIME	WEATHER CONDITIONS	WATER APPEARANCE	COMMENTS
MKTF-1	06/10/16	900	8.18	7.02	17.44	10.42	0.74	23	No samples collected			Oily, brown	Product Layer = 1.16 ft
MKTF-2	06/10/16	910	ND	8.09	20.38	12.29	0.74	27	06/10/16	1450	clear, calm	clear-cloudy-gray-sheen-odor	Bailed 20 gals - sampled 4 hrs later
MKTF-3	06/09/16	1018	7.55	11.83	18.45	6.62	0.74	15	No samples collected			Oily, clear	Product layer = 4.82 ft
MKTF-4	06/09/16	723	ND	10.30	22.16	11.86	0.74	26	06/09/16	1305	Clear, calm, 55°	Cloudy, grey, odor	Bailed dry @ 16 gallons - sampled 5.5 hr later
MKTF-5	06/09/16	1008	15.34	15.87	17.77	1.90	0.74	4	No samples collected			Oily, brown	Product layer = 0.53 ft
MKTF-6	06/09/16	1003	18.02	18.96	23.76	4.80	0.74	11	No samples collected			Oily, brown	Product layer = 0.94 ft
MKTF-7	06/09/16	959	12.01	14.60	17.63	3.03	0.74	7	No samples collected			Oily, brown	Product layer = 2.59 ft
MKTF-8	06/09/16	954	13.48	14.18	21.99	7.81	0.74	17	No samples collected			Oily, brown	Product layer = 0.70 ft
MKTF-9	06/09/16	903	ND	14.15	22.70	8.55	0.74	19	06/09/16	1715	Clear, calm, 75°	Cloudy, dk grey, odor	Bailed dry @ 16 gallons - sampled 8 hrs later
MKTF-10	06/09/16	837	ND	8.20	16.00	7.80	0.74	17	06/09/16	1640	Clear, calm, 68°	Cloudy, dk grey, odor	Bailed dry @ 6.5 gallons - sampled 8 hrs later
MKTF-11	06/09/16	759	ND	8.66	18.40	9.74	0.74	22	06/09/16	1610	Clear, calm, 61°	Cloudy, black, odor	Bailed 20 gallons - sampled 8 hrs later
MKTF-12	06/10/16	1130	18.23	19.55	25.61	6.06	0.74	13	No samples collected			Oily, brown	Product layer = 1.32 ft
MKTF-13	06/10/16	1134	12.99	14.19	21.23	7.04	0.74	16	No samples collected			Oily, brown	Product layer = 1.2 ft
MKTF-14	06/10/16	1140	9.46	7.13	17.46	10.33	0.74	23	No samples collected			Oily, brown	Product layer = 2.33 ft
MKTF-15	06/09/16	944	12.60	12.82	19.48	6.66	0.163	3	No samples collected			Oily, brown	Product layer = 0.22 ft
MKTF-16	06/08/16	1510	ND	9.58	14.10	4.52	0.163	2	06/09/16	1215	Cloudy, west wind, 80°	Cloudy with odor	Dry after bailing 2.5 gallons - sampled next day
MKTF-17	06/10/16	920	ND	11.30	24.68	13.38	0.163	7	06/10/16	1325	Clear, calm, 88°	Clear to muddy at bottom	Bailed dry @ 2.5 gallons - sampled 4 hrs later
MKTF-18	06/10/16	1000	ND	11.85	25.66	13.81	0.163	7	06/10/16	1450	Clear, calm, 84°	Clear to lt brown, no odor	Bailed dry @ 2.5 gallons - sampled 4.5 hrs later
MKTF-19	06/10/16	850	ND	11.90	17.45	5.55	0.163	3	06/10/16	1210	Clear, calm, 88°	Clear to brown, odor	Bailed 2.75 gallons - sampled 3 hrs later
MKTF-20	06/08/16	1425	ND	7.23	9.55	2.32	0.74	5	06/09/16	1130	Clear, west wind, 82°	Clear to black, odor	Dry after bailing 2.5 gallons - sampled next day
MKTF-21	06/08/16	1450	ND	6.98	8.80	1.82	0.74	4	06/09/16	1045	Clear, west wind, 82°	Clear to black, odor	Dry after bailing 1.25 gallons - sampled next day
MKTF-22	06/10/16	1025	ND	26.06	35.24	9.18	0.163	4	06/10/16	1320	clear, slight breeze	clear-pink-brown	Bailed 4 gals - muddy - allowed to recharge
MKTF-23	06/10/16	1100	ND	14.64	20.37	5.73	0.163	3	06/10/16	1115	clear, slight breeze	Clear, odor, sheen	
MKTF-24	06/08/16	1430	ND	21.73	30.45	8.72	0.163	4	06/08/16	1500	ptly cloudy, breezy	clear-cloudy-pink-brown	
MKTF-25	06/09/16	746	ND	11.22	19.40	8.18	0.163	4	06/09/16	755	Clear, calm	clear-cloudy-pink-brown-odor	
MKTF-26	06/09/16	730	ND	9.60	17.16	7.56	0.163	4	06/09/16	745	Clear, calm	clear-cloudy-brown	
MKTF-27	06/08/16	1400	ND	7.51	14.71	7.20	0.163	4	06/08/16	1418	overcast, breezy	clear-cloudy	
MKTF-28	06/08/16	1325	ND	5.28	16.14	10.86	0.163	5	06/08/16	1345	overcast, breezy	Clear	
MKTF-29	06/09/16	1030	ND	2.69	22.80	20.11	0.163	10	06/09/16	1052	ptly cloudy, breezy	clear-cloudy	
MKTF-30	06/09/16	1000	ND	14.01	23.18	9.17	0.163	4	06/09/16	1113	ptly cloudy, breezy	Clear	Bailed 5 gals - muddy - allowed to recharge
MKTF-31	06/09/16	830	ND	7.75	22.72	14.97	0.163	7	06/09/16	846	clear, calm	clear - pink	
MKTF-32	06/09/16	1403	ND	14.31	27.75	13.44	0.163	7	06/09/16	1420	cldy, breezy, rain	clear-cloudy-pink	
MKTF-33	06/10/16	957	ND	23.29	33.20	9.91	0.163	5	06/10/16	1300	clear, slight breeze	clear-pink-brown	Bailed 5 gal - sampled 2 hrs later
MKTF-34	06/10/16	940	ND	18.60	27.70	9.10	0.163	4	06/10/16	1400	Clear, light wind, 84°	Clear	Bailed dry @ 4 gallons - sampled 4.5 hrs later
MKTF-35	06/10/16	1020	ND	7.37	16.49	9.12	0.163	4	06/10/16	1545	Clear, light wind, 85°	Clear to grey, no odor	Bailed 4.5 gallons - sampled 5 hrs later
MKTF-36	06/10/16	1230	6.78	6.80	15.45	8.65	0.163	4	No samples collected			Oily, brown	Product layer = 0.02 ft
MKTF-37	06/10/16	955	8.21	8.23	24.63	16.40	0.163	8	No samples collected			Oily, brown	Product layer = 0.02 ft
MKTF-38	06/08/16	1203	ND	8.43	20.29	11.86	0.163	6	06/08/16	1300	Ptly cloudy, west wind, 80°	Cloudy with odor	Bailed 6 gallons

WELL ID	GAUGE DATE	GAUGE TIME	DTP	DTW	DTB	DTB - DTW	CAP/FT	3 WELL VOLs	SAMPLE DATE	SAMPLE TIME	WEATHER CONDITIONS	WATER APPEARANCE	COMMENTS
MKTF-39	06/08/16	1610	ND	8.33	15.18	6.85	0.163	3	06/08/16	1640	Cloudy, light rain, 80°	Cloudy, grey, odor	Bailed 3.5 gallons
MKTF-40	06/09/16	930	ND	13.31	23.60	10.29	0.163	5	06/09/16	950	clear, slight breeze	Clear - pink	
MKTF-41	06/09/16	1437	ND	19.65	40.00	20.35	0.163	10	06/09/16	1506	Calm, clear, 52°	clear-brown	
MKTF-42	06/09/16	1520	ND	17.30	33.13	15.83	0.163	8	06/09/16	1546	clear, breezy, rain	clear -orange tint - sheen	
MKTF-43	06/09/16	1605	ND	3.67	15.42	11.75	0.163	6	06/09/16	1420	cldy, breezy, rain	Clear	
MKTF-44	06/09/16	1240	ND	27.83	51.00	23.17	0.163	11	06/09/16	1342	cldy, breezy, rain	clear - pink	
MKTF-45	06/10/16	1045	12.48	12.80	30.32	17.52	0.74	39	No samples collected			Oily, brown	Product layer = 0.32 ft

ODOR
PRODUCT
NEW

0.74 = 4" 0.163 = 2"

INSTRUMENTS USED:

YSI 556 MPS Instrument for water quality parameters
Water Mark oil-water Interface Meter, Model H01L/S01L, (100 ft)
Disposable Bailers, 2" and 3"

SIGNATURE: _____

Cheryl Johnson / Environmental Specialist / Western-Gallup
Tracy Pane / Disorbo

2.76
5

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-37		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.12.16	Initial	1624	7.12	19.7	1557	—	—	17.1	-146D
GAUGE TIME	1615	1	1627	7.06	20.3	1692	—	—	14.7	-158.5
DHC (FEET)	ND	2	1629	7.13	19.7	1688	—	—	18.7	-162.8
DTW (FEET)	7.65	3	1631	7.26	18.2	1579	—	—	18.6	-161.3
DTB (FEET)	24.62	4	1633	7.21	19.0	1575	—	—	10.1	-159.2
DTB - DTW	16.97	5		BAILED 7 GALLONS - DISCONTINUED DUE						
CAPACITY PER FOOT	0.74 - 4"	6		TO THE DETECTION OF PSH IN BAILER AND FLOATING						
	0.163 - 2"									

PURGING DATA ON PURGE WATER

3 WELL VOLUMES	8.29	WEATHER CONDITIONS: CLOUDY, WEST WIND, 75°
PURGE DATE	9.12.16	WATER APPEARANCE / ODOR: CLEAR, ODOR, SHEEN
END OF PURGE TIME		COMMENTS:
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA

SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED GEOTECH INTERFACE PROBE
YSI PRODSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-36		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.13.16	Initial								
GAUGE TIME	1112	1								
DHC (FEET)	6.54	2		NO SAMPLES WERE COLLECTED						
DTW (FEET)	6.55	3		0.01' OF HYDROCARBON						
DTB (FEET)	15.46	4		DETECTED IN WELL						
DTB - DTW	NA	5			LIGHT BROWN					
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES		WEATHER CONDITIONS:
PURGE DATE		WATER APPEARANCE / ODOR:
END OF PURGE TIME		COMMENTS:
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA

SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED GEOTECH INTERFACE PROBE

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-45		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.13.16	Initial								
GAUGE TIME	1115	1								
DHC (FEET)	11.95	2								
DTW (FEET)	12.40	3		NO SAMPLES COLLECTED						
DTB (FEET)	30.32	4		0.45' OF HYDROCARBON						
DTB - DTW	NA	5		DECTED IN WELL - BROWN						
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA		
3 WELL VOLUMES		WEATHER CONDITIONS:
PURGE DATE		WATER APPEARANCE / ODOR:
END OF PURGE TIME		COMMENTS:
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA		
SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED GEOTECH INTERFACE PROBE

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E.99

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-17		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.12.16	Initial	1325	6.94	18.0	1590	—	—	22.4	-96.8
GAUGE TIME	1315	1	1328	7.05	15.9	1589	—	—	17.4	-118.1
DHC (FEET)	ND	2	1331	7.03	14.7	1591	—	—	15.7	-117.1
DTW (FEET)	12.40	3	1333	BAILED DRY @ 2 GALLONS						
DTB (FEET)	24.62	4								
DTB - DTW	12.22	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	5.97	WEATHER CONDITIONS: PARTLY CLOUDY, STRONG WEST WIND, 75°
PURGE DATE	9.12.16	WATER APPEARANCE / ODOR: GREY, ODOR
END OF PURGE TIME	1333	COMMENTS:
PURGE AMOUNT	2 GALS	
DTW (FEET)	24.25	

SAMPLING DATA

SAMPLE DATE	9.13.16	WEATHER CONDITIONS: CLEAR CALM 54°
DTW (FEET)	12.55	WATER APPEARANCE / ODOR: CLEAR, ODOR,
SAMPLE TIME	0815	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-17	0815	40 ML VOA	6	HCL
		1 L AMBER	2	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

L.03

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-19		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.12.16	Initial	1357	6.91	17.8	1974	—	—	13.2	-131.7
GAUGE TIME	1350	1	1358	6.98	16.8	2013	—	—	14.8	-133.4
DHC (FEET)	ND	2	1400	7.00	16.2	2013	—	—	12.5	-128.0
DTW (FEET)	11.25	3	1402	7.02	15.9	2012	—	—	16.5	-131.4
DTB (FEET)	17.60	4	1403	7.07	15.6	2010	—	—	16.5	-127.4
DTB - DTW	6.35	5	1405	7.04	15.4	2009	—	—	12.4	-126.5
CAPACITY PER FOOT	0.74 - 4" 0.163 - 2"	6	1407	7.10	15.2	2010	—	—	13.5	-125.7

PURGING DATA

3 WELL VOLUMES	3.11
PURGE DATE	9.12.16
END OF PURGE TIME	1407
PURGE AMOUNT	3.25 GALS
DTW (FEET)	14.21

WEATHER CONDITIONS: CLOUDY, STRONG WEST WIND, 75°
WATER APPEARANCE / ODOR: BROWN, ODOR, SHEEN
COMMENTS:

SAMPLING DATA

SAMPLE DATE	9.13.16
DTW (FEET)	11.30
SAMPLE TIME	0845

WEATHER CONDITIONS: CLEAR, CALM 54°
WATER APPEARANCE / ODOR: CLEAR → PINK-BROWN, ODOR
COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-19	0845	40 ML VOA	6	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

1.58

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-34		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.12.16	Initial	1434	7.52	15.6	2074	—	—	63.9	12.1
GAUGE TIME	1425	1	1436	7.~~56~~ 61	15.~~5~~ 3	2097	—	—	63.5	10.3
DHC (FEET)	ND	2	1438	7.64	14.9	2097	—	—	62.4	11.6
DTW (FEET)	18.03	3	1440	7.65	14.6	2070	—	—	60.2	13.7
DTB (FEET)	27.73	4	1442	7.67	14.3	2054	—	—	58.3	15.0
DTB - DTW	9.70	5	1444	7.67	14.2	2056	—	—	57.3	15.3
CAPACITY PER FOOT	0.74 - 4"	6	1446	7.65	14.0	2062	—	—	51.8	18.3
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	4.74
PURGE DATE	9.12.16
END OF PURGE TIME	1446
PURGE AMOUNT	4.75
DTW (FEET)	25.43

WEATHER CONDITIONS: CLOUDY, WEST WIND, 75°
WATER APPEARANCE / ODOR: CLEAR, NO ODOR
COMMENTS:

SAMPLING DATA

SAMPLE DATE	9.13.16
DTW (FEET)	22.62
SAMPLE TIME	0920

WEATHER CONDITIONS: CLEAR, CALM, 68°
WATER APPEARANCE / ODOR: CLEAR, NO ODOR
COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-34	0920	40 ML VOA	6	HCL
		1 L AMBER	~~1~~ 1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

2.93

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-18		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.12.16	Initial	1513	7.19	20.4	1652	—	—	18.1	-133.5
GAUGE TIME	1504	1	1516	7.33	17.5	1687	—	—	23.9	-140.6
DHC (FEET)	ND	2	1518	7.28	15.6	1695	—	—	14.6	-143.3
DTW (FEET)	~~25.75~~ 7.75	3		BAILED DRY @ 3.5			GALS			
DTB (FEET)	25.78	4								
DTB - DTW	18.03	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	8.82	WEATHER CONDITIONS: CLOUDY, WEST WIND, 75°
PURGE DATE	9.12.16	WATER APPEARANCE / ODOR: CLEAR → BROWN → MUDDY, ODOR
END OF PURGE TIME	1520	COMMENTS:
PURGE AMOUNT	3.5	
DTW (FEET)	25.75	

SAMPLING DATA

SAMPLE DATE	9.13.16	WEATHER CONDITIONS: CLEAR, WEST WIND 76°
DTW (FEET)	10.65	WATER APPEARANCE / ODOR: CLEAR, ODOR
SAMPLE TIME	0950	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-18	0950	40 ML VOA	6	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

1.6
3

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-35		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.12.16	Initial	1548	7.07	21.0	1361	—	—	17.6	-111.1
GAUGE TIME	1542	1	1550	7.11	20.4	1405	—	—	11.6	-136.3
DHC (FEET)	ND	2	1551	7.20	20.0	1408	—	—	16.5	-143.6
DTW (FEET)	6.65	3	1553	7.19	19.8	1382	—	—	21.5	-142.6
DTB (FEET)	16.52	4	1554	7.24	19.7	1391	—	—	19.7	-135.6
DTB - DTW	9.87	5	1556	7.23	19.7	1384	—	—	14.8	-133.5
CAPACITY PER FOOT	0.74 - 4"	6	1558	7.24	19.6	1393	—	—	14.6	-132.1
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	4.83
PURGE DATE	9.12.16
END OF PURGE TIME	1558
PURGE AMOUNT	5 GALS
DTW (FEET)	6.90

WEATHER CONDITIONS: CLOUDY, WEST WIND, 75°
WATER APPEARANCE / ODOR: GREY, ODOR
COMMENTS:

SAMPLING DATA

SAMPLE DATE	9.13.16
DTW (FEET)	6.68
SAMPLE TIME	1040

WEATHER CONDITIONS: CLEAR, WEST WIND, 71°
WATER APPEARANCE / ODOR:
COMMENTS: COLLECTED DUP05 & FB091316 @ 1100

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-35	1040	40 mL VOA	6	HCL
		40 mL VOA	3	HCL
		1 L AMBER	1	NEAT
		250 mL AMBER PLASTIC	1	NEAT
		500 mL / 125 mL ~~AMBER~~ PLASTIC	2	HNO_3
		125 mL ~~AM~~ PLASTIC	1	H_2SO_4
		500 mL PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

2

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-38		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.13.16	Initial	1208	7.05	20.0	2298	—	—	18.2	76.0
GAUGE TIME	1200	1	1210	7.04	19.4	2331	—	—	18.8	47.5
DHC (FEET)	ND	2	1212	6.97	19.1	2300	—	—	17.5	11.5
DTW (FEET)	8.00	3	1214	7.08	19.0	2247	—	—	21.1	-3.2
DTB (FEET)	20.30	4	1216	7.08	19.0	2202	—	—	22.8	-22.8
DTB - DTW	12.30	5	1218	7.09	18.9	2147	—	—	25.0	-40.4
CAPACITY PER FOOT	0.74 - 4"	6	1220	7.10	18.8	2116	—	—	25.6	-30.2
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	6
PURGE DATE	9.13.16
END OF PURGE TIME	1220
PURGE AMOUNT	6
DTW (FEET)	12.20

WEATHER CONDITIONS: CLOUDY WEST WIND 83°
WATER APPEARANCE / ODOR: CLEAR ⇒ BROWN, ODOR
COMMENTS:

SAMPLING DATA

SAMPLE DATE	9.13.16
DTW (FEET)	8.32
SAMPLE TIME	1240

WEATHER CONDITIONS: CLOUDY WEST WIND 83°
WATER APPEARANCE / ODOR: CLEAR, ODOR
COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-38	1240	40 ML VOA	6	HCL
		1 LAMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

L-W3

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-39		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.13.16	Initial	1321	6.77	21.2	7514	—	—	16.5	-106.2
GAUGE TIME	1310	1	1322	6.89	20.5	7651	—	—	14.8	-121.6
DHC (FEET)	ND	2	1323	6.91	20.2	7632	—	—	15.1	-123.6
DTW (FEET)	8.40	3	1325	6.93	20.1	7656	—	—	16.2	-124.3
DTB (FEET)	15.23	4	1326	6.95	20.1	7632	—	—	15.5	-120.3
DTB - DTW	6.83	5	1327	6.96	20.0	7617	—	—	14.6	-124.6
CAPACITY PER FOOT	0.74 - 4"	6	1328	6.94	20.0	7649	—	—	14.9	-121.1
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	3.34
PURGE DATE	9.13.16
END OF PURGE TIME	1328
PURGE AMOUNT	3.5
DTW (FEET)	9.90

WEATHER CONDITIONS: CLOUDY, WEST WIND, 80°
WATER APPEARANCE / ODOR: GREY, ODOR / SHEEN
COMMENTS:

SAMPLING DATA

SAMPLE DATE	9.13.16
DTW (FEET)	9.50
SAMPLE TIME	1345

WEATHER CONDITIONS: CLOUDY, WEST WIND, 80°
WATER APPEARANCE / ODOR: GREY, ODOR
COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-39	1345	40 ML VOA	6	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTER FACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

1.5

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-21		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.11.16	Initial	1028	6.53	22.2	1343	—	—	9.9	-91.4
GAUGE TIME	1022	1	1030	6.73	22.2	1382	—	—	18.4	-95.2
DHC (FEET)	ND	2		BAILED DRY @ 2 GALS						
DTW (FEET)	6.80	3								
DTB (FEET)	8.83	4								
DTB - DTW	2.03	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	4.50	WEATHER CONDITIONS: CLEAR, MODERATE WEST WIND, 78°
PURGE DATE	9.11.16	WATER APPEARANCE / ODOR: AMBER, ODOR
END OF PURGE TIME	1033	COMMENTS:
PURGE AMOUNT	2 GALS	
DTW (FEET)	8.60	

SAMPLING DATA

SAMPLE DATE	9.12.16	WEATHER CONDITIONS: CLEAR, CALM, 56°
DTW (FEET)	7.40	WATER APPEARANCE / ODOR: DARK GREY, ODOR
SAMPLE TIME	0840	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-21	0840	40 ML VOA	6	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

L.51

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-20		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.11.16	Initial	1048	6.77	24.1	2890	—	—	14.3	-119.9
GAUGE TIME	10:44	1	1050	6.75	24.1	2987	—	—	11.1	-138.0
DHC (FEET)	ND	2		BAILED DRY @ 2 GALS						
DTW (FEET)	9.65	3								
DTB (FEET)	9.60	4								
DTB - DTW	2.05	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	4.55	WEATHER CONDITIONS: CLEAR, MODERATE WEST WIND, 80°
PURGE DATE	9.11.16	WATER APPEARANCE / ODOR: GREY → BLACK, ODOR
END OF PURGE TIME	1052	COMMENTS:
PURGE AMOUNT	2	
DTW (FEET)	9.40	

SAMPLING DATA

SAMPLE DATE	9.12.16	WEATHER CONDITIONS: CLEAR, CALM, 62°
DTW (FEET)	7.60	WATER APPEARANCE / ODOR: CLEAR, ODOR
SAMPLE TIME	0925	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-20	0925	40 ML VOA	6	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
↓	↓	500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

0.68

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-16		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.11.16	Initial	1112	7.18	23.6	2569	—	—	16.2	-144.2
GAUGE TIME	1105	1	1114	7.19	23.0	2842	—	—	15.5	-133.5
DHC (FEET)	ND	2	1116	7.19	22.8	3033	—	—	21.7	-131.5
DTW (FEET)	9.65	3	1119	7.18	22.7	3105	—	—	15.4	-122.7
DTB (FEET)	13.85	4								
DTB - DTW	4.20	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	2.05	WEATHER CONDITIONS: CLEAR, MODERATE WEST WIND, 80°
PURGE DATE	9.11.16	WATER APPEARANCE / ODOR: CLEAR, ODOR
END OF PURGE TIME	1119	COMMENTS:
PURGE AMOUNT	2.25	
DTW (FEET)	12.95	

SAMPLING DATA

SAMPLE DATE	9.12.16	WEATHER CONDITIONS: PARTLY CLOUDY, CALM, 63°
DTW (FEET)	12.50	WATER APPEARANCE / ODOR: CLEAR, ODOR
SAMPLE TIME	1010	COMMENTS: LOW YIELD ON WELL 500ML NEAT 1/2 FILLED

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-16	1010	40 ML VOA	6	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500ML PLASTIC	1	HNO_3
		125ML PLASTIC	1	HNO_3
		125ML PLASTIC	1	H_2SO_4
		500ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-03		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.12.16	Initial								
GAUGE TIME	1040	1		NO SAMPLES COLLECTED						
DHC (FEET)	7.92	2		2.40' OF HYDROCARBON						
DTW (FEET)	10.32	3		DETECTED IN WELL						
DTB (FEET)	18.46	4								
DTB - DTW	NA	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES		WEATHER CONDITIONS:
PURGE DATE		WATER APPEARANCE / ODOR:
END OF PURGE TIME		COMMENTS: HC - CLEAR
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA

SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED: GEOTECH INTERFACE PROBE

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID	MKTF-05
GAUGE DATE	9.11.16
GAUGE TIME	1210
DHC (FEET)	14.74
DTW (FEET)	15.19
DTB (FEET)	17.78
DTB - DTW	NA
CAPACITY PER FOOT	0.74 - 4"
	0.163 - 2"

TEST PARAMETERS								
Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
Initial								
1								
2		NO SAMPLES COLLECTED						
3		0.45' OF HYDROCARBON IN WELL						
4								
5								
6								

PURGING DATA

3 WELL VOLUMES	
PURGE DATE	
END OF PURGE TIME	
PURGE AMOUNT	
DTW (FEET)	

WEATHER CONDITIONS:

WATER APPEARANCE / ODOR:

COMMENTS: HC - BROWN

SAMPLING DATA

SAMPLE DATE	
DTW (FEET)	
SAMPLE TIME	

WEATHER CONDITIONS:

WATER APPEARANCE / ODOR:

COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED: GEOTECH INTERFACE PROBE

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-06		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.11.16	Initial								
GAUGE TIME	1214	1								
DHC (FEET)	17.40	2		NO SAMPLES COLLECTED						
DTW (FEET)	18.48	3		1.08' OF HYDROCARBON IN WELL						
DTB (FEET)	23.75	4								
DTB - DTW	NA	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA		
3 WELL VOLUMES		WEATHER CONDITIONS:
PURGE DATE		WATER APPEARANCE / ODOR:
END OF PURGE TIME		COMMENTS: HC - BROWN
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA		
SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED: GEOTECH INTERFACE PROBE

COMPLETED BY: TRACY PAYNE SIGNATURE: [signature]

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-07		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.11.16	Initial								
GAUGE TIME	1216	1								
DHC (FEET)	12.20	2		NO SAMPLES COLLECTED						
DTW (FEET)	14.61	3		2.41' OF HYDROCARBON IN WELL						
DTB (FEET)	17.63	4								
DTB - DTW	NA	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA		
3 WELL VOLUMES		WEATHER CONDITIONS:
PURGE DATE		WATER APPEARANCE / ODOR:
END OF PURGE TIME		COMMENTS: HC- BROWN
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA		
SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED: GEOTECH INTERFACE PROBE

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-08		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.11.16	Initial								
GAUGE TIME	1220	1								
DHC (FEET)	13.63	2		NO SAMPLES COLLECTED						
DTW (FEET)	14.29	3		0.66' OF HYDROCARBON IN WELL						
DTB (FEET)	21.98	4								
DTB - DTW	NA	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES		WEATHER CONDITIONS:
PURGE DATE		WATER APPEARANCE / ODOR:
END OF PURGE TIME		COMMENTS: HC- BROWN
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA

SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED GEOTECH INTERFACE PROBE

COMPLETED BY: TRACY PAYNE SIGNATURE:

7.19

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-11		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.11.16	Initial	0810	7.08	17.9	4005	—	—	15.9	-94.7
GAUGE TIME	0804	1	0813	7.25	17.6	4215	—	—	22.6	-133.4
DHC (FEET)	ND	2	0816	7.26	17.2	4453	—	—	20.7	-133.9
DTW (FEET)	8.70	3	0819	7.15	17.0	5005	—	—	17.1	-116.6
DTB (FEET)	18.42	4	0822	7.24	16.5	4768	—	—	21.2	-123.7
DTB - DTW	9.72	5	0825	7.23	16.4	4991	—	—	19.8	-115.3
CAPACITY PER FOOT	0.74 - 4"	6	0828	7.22	16.3	4920	—	—	13.6	-115.9
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	21.58
PURGE DATE	9.11.16
END OF PURGE TIME	0828
PURGE AMOUNT	22
DTW (FEET)	15.12

WEATHER CONDITIONS: CLEAR, CALM, 60°

WATER APPEARANCE / ODOR: CLEAR → GREY, ODOR

COMMENTS:

SAMPLING DATA

SAMPLE DATE	9.11.16
DTW (FEET)	8.78
SAMPLE TIME	1330

WEATHER CONDITIONS: CLOUDY, WEST WIND, 89° LIGHTNING ALERT @ 1330 - 1425

WATER APPEARANCE / ODOR: CLEAR, ODOR

COMMENTS: COLLECTED DUP04 ~~AT~~ AT THIS WELL

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-11	1330	40 ML VOA	6	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE: [signature]

8.9

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-04		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.11.16	Initial	0725	6.79	16.8	2124	—	—	22.5	-76.4
GAUGE TIME	0715	1	0729	6.97	15.5	2417	—	—	20.1	-107.1
DHC (FEET)	ND	2	0733	7.01	14.6	2376	—	—	14.3	-109.7
DTW (FEET)	10.23	3	0737	7.14	14.0	2354	—	—	22.8	-116.7
DTB (FEET)	22.30	4		BAILED DRY @ 16 GALS						
DTB - DTW	12.07	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	26.80	WEATHER CONDITIONS: CLEAR, CALM, 61°
PURGE DATE	9.11.12	WATER APPEARANCE / ODOR: GREY ODOR, SHEEN
END OF PURGE TIME	0740	COMMENTS:
PURGE AMOUNT	16 GALS	
DTW (FEET)	21.94	

SAMPLING DATA

SAMPLE DATE	9.11.12	WEATHER CONDITIONS: CLOUDY, WEST WIND, 85°
DTW (FEET)	10.20	WATER APPEARANCE / ODOR: AMBER, ODOR
SAMPLE TIME	1445	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-04	1445	40 ML VOA	6	HCL
		1 L AMBER	2	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE: [signature]

5.7

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-10		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.11.16	Initial	0905	6.61	18.6	3539	—	—	14.5	-90.5
GAUGE TIME	0855	1	0907	6.70	17.8	3653	—	—	19.3	-100.0
DHC (FEET)	ND	2	0909	6.74	17.2	3650	—	—	17.4	-104.1
DTW (FEET)	8.45	3		BAILED DRY @ 6 GALLONS						
DTB (FEET)	16.20	4								
DTB - DTW	~~16.28~~ 7.75	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	17.20
PURGE DATE	9.11.16
END OF PURGE TIME	0911
PURGE AMOUNT	~~3~~ 7 GALS
DTW (FEET)	15.90

WEATHER CONDITIONS: CLEAR, CALM, 68°

WATER APPEARANCE / ODOR: CLEAR → BROWN, ODOR

COMMENTS:

SAMPLING DATA

SAMPLE DATE	9.11.16
DTW (FEET)	9.15'
SAMPLE TIME	1500

WEATHER CONDITIONS: CLOUDY, WEST WIND, 85° - LIGHTNING ALERT 1510—1605

WATER APPEARANCE / ODOR: BROWN, ODOR

COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-10	1500	40 ML VOA	6	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML AMBER	1	HNO_3
		125 ML AMBER	1	HNO_3
		125 ML AMBER	1	H_2SO_4
		~~3~~ 500 ML AMBER	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

6.38

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-9		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.11.16	Initial	0943	~~7.01~~ ~~7.42~~	~~16.2~~ ~~19.6~~	1824	—	—	18.8	-65.5
GAUGE TIME	0930	1	0946	7.04	15.1	1874	—	—	11.5	-99.3
DHC (FEET)	ND	2	0949	7.14	14.5	1908	—	—	10.6	-113.5
DTW (FEET)	14.20	3	0952	7.16	14.4	1907	—	—	18.6	-114.1
DTB (FEET)	22.82	4	0955	7.17	14.3	1900	—	—	16.1	-117.2
DTB - DTW	8.62	5		BAILED DRY @ 16 GALS						
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	19.14	WEATHER CONDITIONS: CLEAR, MODERATE WEST WIND, 72°
PURGE DATE	9.11.16	WATER APPEARANCE / ODOR: CLEAR → BROWN, ODOR
END OF PURGE TIME	0958	COMMENTS:
PURGE AMOUNT	~~15~~ 16	
DTW (FEET)	22.45	

SAMPLING DATA

SAMPLE DATE	9.11.16	WEATHER CONDITIONS: CLOUDY, WEST WIND, 80°
DTW (FEET)	14.10	WATER APPEARANCE / ODOR: BROWN, ODOR
SAMPLE TIME	1620	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-9	1620	40 ML VOA	6	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

1.06

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-15		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.11.16	Initial	1242	6.62	18.3	11577	—	—	11.7	-105.1
GAUGE TIME	1230	1	1244	6.68	17.4	11683	—	—	11.5	-107.7
DHC (FEET)	ND	2	1245	6.74	17.4	11643	—	—	13.4	-107.8
DTW (FEET)	13.00	3	1246	6.76	17.1	11594	—	—	11.8	-105.8
DTB (FEET)	19.55	4	1248	6.78	17.0	11563	—	—	13.5	-107.8
DTB - DTW	6.55	5	1250	6.79	17.0	11530	—	—	8.9	-107.4
CAPACITY PER FOOT	0.74 - 4"	6	1252	6.79	17.0	11523	—	—	12.5	-106.5
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	3.20	WEATHER CONDITIONS: CLOUDY, WEST WIND, 80°
PURGE DATE	9.11.16	WATER APPEARANCE / ODOR: BROWN, ODOR, SHEEN
END OF PURGE TIME	1252	COMMENTS:
PURGE AMOUNT	3.25	
DTW (FEET)	13.60	

SAMPLING DATA

SAMPLE DATE	9.11.16	WEATHER CONDITIONS: CLOUDY, WEST WIND, 80°
DTW (FEET)	13.00	WATER APPEARANCE / ODOR: GREY, ODOR
SAMPLE TIME	1645	COMMENTS: COLLECTED FB09111G@1655

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-15	1645	40 ML VOA	6	HCL
		1 LITER AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	~~NEAT~~ HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-44		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.8.16	Initial	1126	8.17	14.5	1805	—	—	40.3	70.2
GAUGE TIME	1115	1	1130	8.21	13.1	2434	—	—	41.5	73.4
DHC (FEET)	ND	2	1134	8.16	12.8	2459	—	—	45.6	75.0
DTW (FEET)	31.34	3	1138	8.14	12.9	2472	—	—	49.0	78.0
DTB (FEET)	51.24	4	1142	8.13	12.9	2501	—	—	46.4	79.9
DTB - DTW	19.90	5	1146	8.13	12.9	2489	—	—	37.2	80.6
CAPACITY PER FOOT	0.74 - 4"	6	1154	8.16	12.8	2450	—	—	35.1	80.7
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	9.73	WEATHER CONDITIONS: CLEAR, LIGHT WEST WIND, 74°
PURGE DATE	9.8.16	WATER APPEARANCE / ODOR: CLEAR → BROWN → MUDDY, NO ODOR
END OF PURGE TIME	1154	COMMENTS: DTW - 48.95' @ 1735 ON 9.8.16
PURGE AMOUNT	10.00	DTW - 48.66' @ 0810 ON 9.9.16
DTW (FEET)	50.20	

SAMPLING DATA

SAMPLE DATE	9.9.16	WEATHER CONDITIONS: CLEAR, CALM, 54°
DTW (FEET)	48.66	WATER APPEARANCE / ODOR: BROWN NO ODOR
SAMPLE TIME	0835	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-44	0835	40 ML VOA	6	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-25		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.8.16	Initial	1339	6.94	16.6	3262	—	—	19.1	45.2
GAUGE TIME	~~1330~~ 1330	1	1341	6.93	15.0	3223	—	—	22.1	21.8
DHC (FEET)	ND	2	1344	6.94	14.6	3299	—	—	26.0	3.3
DTW (FEET)	12.17	3	1350	→ BAILED	DOWN @ 3.5 GALLONS					
DTB (FEET)	19.50	4			NO RECOVERY					
DTB - DTW	7.33	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	3.58	WEATHER CONDITIONS: CLEAR, MODERATE WEST WIND, 82°
PURGE DATE	9.8.16	WATER APPEARANCE / ODOR: CLEAR → BROWN → MUDDY; ODOR
END OF PURGE TIME	1350	COMMENTS:
PURGE AMOUNT	3.5 ~~19.35~~	
DTW (FEET)	19.35	

SAMPLING DATA

SAMPLE DATE	9.9.16	WEATHER CONDITIONS: CLEAR CALM 63°
DTW (FEET)	12.10'	WATER APPEARANCE / ODOR: BROWN, NO ODOR
SAMPLE TIME	0930	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-25	0930	40 ML VOA	6	HCL
		40 ML VOA	3	HCL
		1 L AMBER	2	NEAT
		250 ML AMBER	1	NEAT
		500 ML / 125 ML PLASTIC	2	HNO_3
		125 ML PLASTIC	1	~~HNO_3~~ H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE: [signature]

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-43		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.9.16	Initial	0957	6.45	20.0	40919	—	—	33.6	151.3
GAUGE TIME	0947	1	0959	6.49	19.8	30631	—	—	23.5	152.5
DHC (FEET)	ND	2	1001	6.51	19.4	19445	—	—	20.7	157.3
DTW (FEET)	3.98	3	1003	6.54	19.0	24828	—	—	19.9	160.3
DTB (FEET)	15.43	4	1005	6.55	18.6	21480	—	—	24.1	161.6
DTB - DTW	11.45	5	1007	6.56	18.1	22180	—	—	22.9	163.9
CAPACITY PER FOOT	0.74 - 4"	6	1009	6.58	17.9	23100	—	—	21.3	164.9
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	5.60	WEATHER CONDITIONS: CLEAR, LIGHT WEST WIND, 75°
PURGE DATE	9.9.16	WATER APPEARANCE / ODOR: CLEAR, NO ODOR
END OF PURGE TIME	1009	COMMENTS:
PURGE AMOUNT	6 GALS	
DTW (FEET)	10.78	

SAMPLING DATA

SAMPLE DATE	9.9.16	WEATHER CONDITIONS: CLEAR, LIGHT WEST WIND, 77°
DTW (FEET)	10.45'	WATER APPEARANCE / ODOR: CLEAR, NO ODOR
SAMPLE TIME	1045	COMMENTS: COLLECTED DUP03 AT THIS WELL

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-43	1045	40ML VOA	6	HCL
		1L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE: [signature]

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WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-42		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.9.16	Initial	1129	7.94	15.5	3955	—	—	8.9	57.4
GAUGE TIME	1115	1	1131	7.93	14.3	3653	—	—	19.8	49.2
DHC (FEET)	ND	2	1133	7.90	13.8	3663	—	—	11.1	51.7
DTW (FEET)	17.30	3	1136	7.93	13.5	3627	—	—	16.2	56.4
DTB (FEET)	33.22	4	1139	7.98	13.3	3546	—	—	21.4	59.1
DTB - DTW	15.92	5	1142	7.96	13.9	3525	—	—	30.1	63.1
CAPACITY PER FOOT	0.74 - 4" / 0.163 - 2"	6	1145	7.98	13.3	3577	—	—	19.5	60.2

PURGING DATA

3 WELL VOLUMES	7.78
PURGE DATE	9.9.16
END OF PURGE TIME	1145
PURGE AMOUNT	8 GALS
DTW (FEET)	23.70

WEATHER CONDITIONS: CLEAR, LIGHT WEST WIND, 85°
WATER APPEARANCE / ODOR: CLEAR, GREENISH GRAY, ODOR
COMMENTS:

SAMPLING DATA

SAMPLE DATE	9.9.16
DTW (FEET)	23.50
SAMPLE TIME	1215

WEATHER CONDITIONS: CLEAR LIGHT NORTH WIND; 85°
WATER APPEARANCE / ODOR: CLEAR, GREENISH GRAY, ODOR
COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-42	1215	40 ML VOA	6	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

3-16

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-32		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.9.16	Initial	1243	7.77	18.9	2589	—	—	13.4	76.0
GAUGE TIME	1230	1	1246	7.77	15.3	2764	—	—	21.2	78.1
DHC (FEET)	ND	2	1248	7.78	14.5	2782	—	—	24.5	80.5
DTW (FEET)	14.40	3	1250	7.82	14.1	2887	—	—	26.0	82.2
DTB (FEET)	27.70	4	1252	7.81	13.9	3024	—	—	25.3	83.8
DTB - DTW	13.30	5	1254	7.82	13.8	2964	—	—	27.0	84.0
CAPACITY PER FOOT	0.74 - 4"	6	1256	7.83	13.7	2939	—	—	22.7	88.0
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	6.50
PURGE DATE	9.9.16
END OF PURGE TIME	1256
PURGE AMOUNT	6.5
DTW (FEET)	21.45

WEATHER CONDITIONS: CLEAR, LIGHT WEST WIND 86°
WATER APPEARANCE / ODOR: CLEAR, LIGHT BROWN, NO ODOR
COMMENTS:

SAMPLING DATA

SAMPLE DATE	9.9.16
DTW (FEET)	21.40
SAMPLE TIME	1320

WEATHER CONDITIONS: CLEAR, LIGHT WEST WIND 86°
WATER APPEARANCE / ODOR: LIGHT BROWN, NO ODOR
COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-32	1320	40 ML VOA	6	HCL
		40 ML VOA	3	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML/125 ML PLASTIC	2	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

3.2
6

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-41		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.9.16	Initial	1350	8.39	16.3	3250	—	—	54.3	69.5
GAUGE TIME	1340	1	1353	8.34	13.9	3243	—	—	42.1	74.4
DHC (FEET)	ND	2	1355	8.29	13.3	3239	—	—	46.7	76.7
DTW (FEET)	20.11	3	1358	8.27	13.1	3226	—	—	46.8	78.0
DTB (FEET)	39.78	4	1401	8.31	13.2	3217	—	—	39.7	78.9
DTB - DTW	19.67	5	1404	8.32	13.2	3219	—	—	32.4	79.1
CAPACITY PER FOOT	0.74 - 4" / 0.163 - 2"	6	1407	8.33	13.3	3220	—	—	27.4	79.4

PURGING DATA

3 WELL VOLUMES	9.61
PURGE DATE	9.9.16
END OF PURGE TIME	1409
PURGE AMOUNT	10 GALS
DTW (FEET)	34.03

WEATHER CONDITIONS: CLEAR, MOD WEST WIND, 85°
WATER APPEARANCE / ODOR: CLEAR → GREY, NO ODOR
COMMENTS:

SAMPLING DATA

SAMPLE DATE	9.9.16
DTW (FEET)	31.90
SAMPLE TIME	1500

WEATHER CONDITIONS: CLEAR, CALM, 85°
WATER APPEARANCE / ODOR: GREY, NO ODOR
COMMENTS: COLLECTED FB090916 @ 1420 AT THIS WELL

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-41	1500	40 ML VOA	6	HCL
		40 ML VOA	3	HCL
		1 LITER AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC/125ML P	2	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE: [signature]

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-12		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.10.16	Initial								
GAUGE TIME	1347	1								
DHC (FEET)	19.23	2		NO SAMPLES COLLECTED						
DTW (FEET)	19.55	3		0.32' OF HYDROCARBON						
DTB (FEET)	25.90	4		DETECTED IN WELL						
DTB - DTW	NA	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES		WEATHER CONDITIONS:
PURGE DATE		WATER APPEARANCE / ODOR:
END OF PURGE TIME		COMMENTS: HC - BROWN
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA

SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED: GEOTECH INTERFACE PROBE

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-13		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.10.16	Initial								
GAUGE TIME	1340	1								
DHC (FEET)	13.88	2		NO SAMPLES COLLECTED						
DTW (FEET)	14.86	3		0.98' OF HYDROCARBON						
DTB (FEET)	21.78	4		DETECTED IN WELL						
DTB - DTW	NA	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES		WEATHER CONDITIONS:
PURGE DATE		WATER APPEARANCE / ODOR:
END OF PURGE TIME		COMMENTS: HC - BROWN
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA

SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED: GEOTECH INTERFACE PROBE

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-14		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9-10-16	Initial								
GAUGE TIME	1335	1								
DHC (FEET)	7.31	2		NO SAMPLES COLLECTED						
DTW (FEET)	9.00	3		1.69' OF HYDROCARBON						
DTB (FEET)	17.40	4		DETECTED IN WELL						
DTB - DTW	NA	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES		WEATHER CONDITIONS:
PURGE DATE		WATER APPEARANCE / ODOR:
END OF PURGE TIME		COMMENTS: HC - CLEAR
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA

SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED: GEOTECH INTERFACE PROBE

COMPLETED BY: TRACY PAYNE SIGNATURE:

1.5

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-22		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.10.16	Initial	1210	7.15	14.6	1884	—	—	18.2	-56.5
GAUGE TIME	1200	1	1212	7.15	13.1	1764	—	—	23.8	-93.7
DHC (FEET)	ND	2	1214	7.15	12.6	1787	—	—	22.3	-99.1
DTW (FEET)	26.13	3	1216	7.24	12.5	1821	—	—	21.0	-97.9
DTB (FEET)	35.60	4	1219	7.25	12.7	1837	—	—	20.8	-98.2
DTB - DTW	9.47	5	1221	7.24	12.6	1843	—	—	19.9	-96.7
CAPACITY PER FOOT	0.74 - 4"	6	1225	BAILED DRY @ 4 GALLONS						
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	4.6	WEATHER CONDITIONS: CLEAR, MOD SE WIND, 78°
PURGE DATE	9.10.16	WATER APPEARANCE / ODOR: CLEAR → PINK-BROWN, ODOR
END OF PURGE TIME	1225	COMMENTS:
PURGE AMOUNT	4 GAL	
DTW (FEET)	35.03	

SAMPLING DATA

SAMPLE DATE	9.10.16	WEATHER CONDITIONS: PTLY CLOUDY, CALM, 85°
DTW (FEET)	26.15	WATER APPEARANCE / ODOR: CLEAR, ODOR
SAMPLE TIME	1600	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-22	1600	40 ML VOA	6	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-23		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.10.16	Initial								
GAUGE TIME	1325	1								
DHC (FEET)	15.04	2		NO SAMPLES COLLECTED						
DTW (FEET)	15.15	3		0.11' OF HYDROCARBON DETECTED						
DTB (FEET)	20.36	4			IN WELL					
DTB - DTW	NA	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES		WEATHER CONDITIONS:
PURGE DATE		WATER APPEARANCE / ODOR:
END OF PURGE TIME		COMMENTS: HC - CLEAR
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA

SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED: GEOTECH INTERFACE PROBE

COMPLETED BY: TRACY PAYNE SIGNATURE:

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WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-33		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.10.16	Initial	1250	7.56	14.3	1775	—	—	19.4	42.3
GAUGE TIME	1240	1	1253	7.41	13.0	1733	—	—	18.6	53.5
DHC (FEET)	ND	2	1255	7.48	12.8	1726	—	—	21.6	58.1
DTW (FEET)	23.20	3	1257	7.39	12.7	1745	—	—	18.9	62.9
DTB (FEET)	33.01	4	1259	7.41	12.7	1769	—	—	19.0	66.6
DTB - DTW	9.81	5	1301	7.42	12.6	1764	—	—	18.8	69.2
CAPACITY PER FOOT	0.74 - 4"	6	1303	7.41	12.5	1768	—	—	18.1	70.2
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	4.79	WEATHER CONDITIONS: CLEAR, SE WIND, 76°
PURGE DATE	9.10.16	WATER APPEARANCE / ODOR: CLEAR → PINK-BROWN, FAINT ODOR
END OF PURGE TIME	1303	COMMENTS:
PURGE AMOUNT	5 GALS	
DTW (FEET)	26.45	

SAMPLING DATA

SAMPLE DATE	9.10.16	WEATHER CONDITIONS: CLEAR, CALM, 85°
DTW (FEET)	23.25	WATER APPEARANCE / ODOR: CLEAR NO ODOR
SAMPLE TIME	1520	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-33	1520	40 ML VOA	6	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
↓	↓	500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-31		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.8.16	Initial	1430	7.02	19.4	3718	—	—	18.1	50.3
GAUGE TIME	1420	1	1433	7.01	18.6	3811	—	—	18.5	59.1
DHC (FEET)	ND	2	1436	7.07	18.3	3756	—	—	22.2	61.8
DTW (FEET)	8.48	3	1438	7.08	18.4	3664	—	—	24.9	63.8
DTB (FEET)	22.48	4	1440	7.10	18.3	3611	—	—	25.9	65.3
DTB - DTW	14.00	5	1443	7.09	18.3	3605	—	—	28.0	66.7
CAPACITY PER FOOT	0.74 - 4"	6	1446	7.08	18.3	3620	—	—	29.1	66.5
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	6.85	WEATHER CONDITIONS: CLEAR, MOD WEST WIND, 81°
PURGE DATE	9.8.16	WATER APPEARANCE / ODOR: CLEAR → BROWN, NO ODOR
END OF PURGE TIME	1446	COMMENTS:
PURGE AMOUNT	7 GALS	
DTW (FEET)	10.30	

SAMPLING DATA

SAMPLE DATE	9.8.16	WEATHER CONDITIONS: CLEAR, CALM, 80°
DTW (FEET)	9.57	WATER APPEARANCE / ODOR: CLEAR, NO ODOR
SAMPLE TIME	1625	COMMENTS: COLLECTED FB090816 @ ~~1300~~ 1500, COLLECTED DUP02

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-31	1625	40 ML VOA	6	HCL
		40 ML VOA	3	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML/125 ML PLASTIC	2	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE: [signature]

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-40		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.8.16	Initial	1647	6.86	17.0	12850	—	—	56.8	89.4
GAUGE TIME	1435	1	1649	7.12	16.3	6235	—	—	62.2	82.9
DHC (FEET)	ND	2	1651	7.12	15.8	9239	—	—	61.2	89.4
DTW (FEET)	13.52	3	1653	7.02	15.2	10950	—	—	59.0	94.6
DTB (FEET)	23.67	4	1655	7.03	14.9	11715	—	—	58.2	97.2
DTB - DTW	10.15	5	1657	6.99	14.6	13672	—	—	54.5	101.3
CAPACITY PER FOOT	0.74 - 4"	6	1659	7.03	14.3	15129	—	—	46.7	103.3
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	4.96
PURGE DATE	9.8.16
END OF PURGE TIME	1659
PURGE AMOUNT	5 GALS
DTW (FEET)	20.48

WEATHER CONDITIONS: CLEAR CALM 84°
WATER APPEARANCE / ODOR: CLEAR → GREY, NO ODOR
COMMENTS:

SAMPLING DATA

SAMPLE DATE	9.8.16
DTW (FEET)	20.20
SAMPLE TIME	1730

WEATHER CONDITIONS: CLEAR CALM 84°
WATER APPEARANCE / ODOR: GREY, NO ODOR
COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-40	1730	40 ML VOA	6	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-28		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.8.16 ~~MKTF-28~~	Initial	1224	7.44	22.9	2419	—	—	63.7	76.8
GAUGE TIME	1212	1	1226	7.45	22.4	2363	—	—	66.1	77.7
DHC (FEET)	ND	2	1227	7.46	22.2	2466	—	—	60.6	81.9
DTW (FEET)	6.40	3	1229	7.42	22.0	2685	—	—	50.9	84.4
DTB (FEET)	16.18	4	1231	7.37	21.9	2786	—	—	49.1	85.4
DTB - DTW	9.78	5	1232	7.55	21.6	2916	—	—	39.7	86.6
CAPACITY PER FOOT	0.74 - 4"	6	1235	7.48	21.5	3075	—	—	32.4	88.6
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	4.78
PURGE DATE	9.8.16
END OF PURGE TIME	1235
PURGE AMOUNT	5 GALS
DTW (FEET)	12.80

WEATHER CONDITIONS: CLEAR, WEST WIND, 79°
WATER APPEARANCE / ODOR: CLEAR → LIGHT BROWN, NO ODOR
COMMENTS:

SAMPLING DATA

SAMPLE DATE	9.8.16
DTW (FEET)	12.80
SAMPLE TIME	1300

WEATHER CONDITIONS: CLEAR, WEST WIND 79°
WATER APPEARANCE / ODOR: LIGHT BROWN, NO ODOR
COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-28	1300	40 ML VOA	6	HCL
		1 L AMBER	2	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE: [signature]

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-01		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.7.16	Initial								
GAUGE TIME	1123	1								
DHC (FEET)	7.12	2		DID NOT SAMPLE						
DTW (FEET)	8.62	3		1.50' OF HC IN WELL						
DTB (FEET)	17.53	4								
DTB - DTW	NA	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA		
3 WELL VOLUMES		WEATHER CONDITIONS:
PURGE DATE		WATER APPEARANCE / ODOR:
END OF PURGE TIME		COMMENTS:
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA		
SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED: GEOTECH INTERFACE PROBE

COMPLETED BY: TRACY PAYNE SIGNATURE: [signature]

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-02		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.7.16	Initial	1038	7.55	16.9	2607	—	—	25.3	-14.3
GAUGE TIME	1025	1	1044	7.39	14.4	1350	—	—	19.8	-46.4
DHC (FEET)	ND	2	1053	7.46	13.0	3518	—	—	27.6	-63.2
DTW (FEET)	28.8.28	3		BAILED DOWN @ 18						
DTB (FEET)	20.41	4								
DTB - DTW	12.13	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	26.93	WEATHER CONDITIONS: CALM, CLOUDY, 68°
PURGE DATE	9.7.16	WATER APPEARANCE / ODOR: CLEAR, TURNED TURBID PINK-BROWN, ODOR
END OF PURGE TIME	10:53	COMMENTS: BAILED DOWN @ 18 GALLONS - NO RECOVERY IN BAILER
PURGE AMOUNT	18.	
DTW (FEET)	20.00	

SAMPLING DATA

SAMPLE DATE	9.7.16	WEATHER CONDITIONS: CALM CLOUDY 76°
DTW (FEET)	17.35	WATER APPEARANCE / ODOR: CLEAR - PINK BROWN, ODOR
SAMPLE TIME	1545	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-02	1545	40ML VOA	6	HCL
	1545	40ML VOA	3	HCL
		1L AMBER	1	NEAT
		250ML AMBER	1	NEAT
		500ML/125ML PLASTIC	2	HNO_3
		125ML PLASTIC	1	H_2SO_4
		500ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE: [signature]

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-24		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.7.16	Initial	0846	6.74	14.0	130.4	—	—	16.5	106.6
GAUGE TIME	0833	1	0850	6.86	12.8	3630	—	—	16.9	77.5
DHC (FEET)	ND	2	0854	7.02	12.7	3511	—	—	23.8	48.2
DTW (FEET)	22.69	3	BAILED DRY @ 3.5 GALLONS							
DTB (FEET)	30.82	4								
DTB - DTW	8.13	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	3.98	WEATHER CONDITIONS: CALM, CLOUDY, 66°
PURGE DATE	9.7.16	WATER APPEARANCE / ODOR: CLEAR → CLOUDY PINK BROWN — NO ODOR
END OF PURGE TIME	0900	COMMENTS: BAILED DRY @ 3.5 GALLONS
PURGE AMOUNT	3.50	
DTW (FEET)	30.80	

SAMPLING DATA

SAMPLE DATE	9.7.16	WEATHER CONDITIONS: CALM, CLOUDY, 66°
DTW (FEET)	25.90	WATER APPEARANCE / ODOR: CLEAR → CLOUDY PINK-BROWN — NO ODOR
SAMPLE TIME	0945	COMMENTS: COLLECTED FB090716@0915 @ THIS WELL - SAME SUITE

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-24	0945	40 ML VOA	6	HCL
		40 ML VOA	3	HCL
		1L AMBER	1	—
		250 ML AMBER	1	—
		500 ML / 125 ML PLASTIC	2	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	—

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID	MKTF-26
GAUGE DATE	9.7.16
GAUGE TIME	1110
DHC (FEET)	9.44
DTW (FEET)	10.81
DTB (FEET)	16.91
DTB - DTW	NA
CAPACITY PER FOOT	0.74 - 4"
	0.163 - 2"

TEST PARAMETERS								
Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
Initial								
1								
2		DID NOT SAMPLE						
3		1.37' OF HC IN WELL						
4								
5								
6								

PURGING DATA

3 WELL VOLUMES		WEATHER CONDITIONS:
PURGE DATE		WATER APPEARANCE / ODOR:
END OF PURGE TIME		COMMENTS:
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA

SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED: GEOTECH INTERFACE PROBE

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-27		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.7.16	Initial	1203	7.02	19.0	9036	—	—	35.2	83.2
GAUGE TIME	1145	1	1207	7.03	18.0	9109	—	—	31.2	81.4
DHC (FEET)	ND	2	1210	7.02	17.9	9215	—	—	22.7	82.9
DTW (FEET)	8.06	3	1213	7.05	17.8	9225	—	—	20.5	82.6
DTB (FEET)	14.47	4								
DTB - DTW	6.41	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	3.13	WEATHER CONDITIONS: CALM, CLOUDY, 74°
PURGE DATE	9.7.16	WATER APPEARANCE / ODOR: CLEAR - GRAY - NO ODOR
END OF PURGE TIME	1213	COMMENTS:
PURGE AMOUNT	3.25	
DTW (FEET)	12.70	

SAMPLING DATA

SAMPLE DATE	9.7.16	WEATHER CONDITIONS: CALM, CLOUDY, 78°
DTW (FEET)	12.50	WATER APPEARANCE / ODOR: CLEAR - GRAY - NO ODOR
SAMPLE TIME	1300	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-27	1300	40 ML VOA	6	HCL
		1 L AMBER	2	—
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE: [signature]

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-29		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.7.16	Initial	1347	7.64	19.8	1105	—	—	35.8	25.8
GAUGE TIME	1335	1	1350	7.59	18.6	2463	—	—	30.9	12.6
DHC (FEET)	ND	2	1352	7.51	17.3	2479	—	—	23.1	2.6
DTW (FEET)	4.52	3	1356	7.48	16.7	2457	—	—	17.0	-1.3
DTB (FEET)	22.82	4	1359	7.48	16.9	2446	—	—	20.0	-2.3
DTB - DTW	18.30	5	1402	7.47	17.0	2433	—	—	19.5	-1.8
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	8.94	WEATHER CONDITIONS: LIGHT WIND - WEST - CLOUDY - 80°
PURGE DATE	9.7.16	WATER APPEARANCE / ODOR: CLEAR ⇒ PINK BROWN — NO ODOR
END OF PURGE TIME	1402	COMMENTS: BAILED 9 GALS
PURGE AMOUNT	9 GALS	
DTW (FEET)	8.28	

SAMPLING DATA

SAMPLE DATE	9.7.16	WEATHER CONDITIONS: LIGHT WIND - WEST - CLOUDY - 80°
DTW (FEET)	4.75	WATER APPEARANCE / ODOR: CLEAR - PINK - NO ODOR
SAMPLE TIME	1435	COMMENTS: COLLECTED DUP01 AT THIS WELL

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-29	1435	40 ML VOA	6	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
THIRD QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-30		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	9.7.16	Initial	1321	7.22	17.2	4648	—	—	22.2	91.4
GAUGE TIME	1315	1	1323	7.21	16.6	4728	—	—	22.1	88.6
DHC (FEET)	ND	2	1326	7.23	16.3	4890	—	—	23.0	21.5
DTW (FEET)	15.48	3	1330	BAILED DRY @ 3.5 GALS						
DTB (FEET)	23.15	4								
DTB - DTW	7.67	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES	3.75	WEATHER CONDITIONS: CALM, CLOUDY, 79°
PURGE DATE	9.7.16	WATER APPEARANCE / ODOR: CLEAR → TURBID → MUDDY PINK-BROWN
END OF PURGE TIME	1330	COMMENTS:
PURGE AMOUNT	3.50	
DTW (FEET)	22.86	

SAMPLING DATA

SAMPLE DATE	9.7.16	WEATHER CONDITIONS: CALM, CLOUDY, 76°
DTW (FEET)	15.53	WATER APPEARANCE / ODOR: CLEAR - GRAY - NO ODOR
SAMPLE TIME	1615	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-30	1615	40 ML VOA	6	HCL
		40 ML VOA	3	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML / 125 ML PLASTIC	2	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE
YSI PRO DSS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-29		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	10.28.16	Initial	1032	7.47	16.4	2473	—	—	67.8	41.5
GAUGE TIME	1025	1	1034	7.49	16.6	2373	—	—	29.9	41.6
DHC (FEET)	ND	2	1037	7.44	16.9	2374	—	—	20.4	42.4
DTW (FEET)	3.10	3	1040	7.44	16.9	2266	—	—	23.1	42.6
DTB (FEET)	22.82	4	1043	7.44	16.9	2375	—	—	25.0	49.9
DTB - DTW	19.72	5	1046	7.43	16.9	2377	—	—	25.1	44.4
CAPACITY PER FOOT	0.74 - 4" / 0.163 - 2"	6	1049	7.42	16.9	2374	—	—	38.2	44.2
3.21		PURGING DATA								
3 WELL VOLUMES	9.64	WEATHER CONDITIONS: CLEAR, LT SE WIND, 69°								
PURGE DATE	10.28.16	WATER APPEARANCE / ODOR: CLEAR, NO ODOR → CLOUDY, LT BROWN								
END OF PURGE TIME	1049	COMMENTS:								
PURGE AMOUNT	9.75									
DTW (FEET)	10.50									
SAMPLING DATA										
SAMPLE DATE	10.28.16 ~~9.6~~	WEATHER CONDITIONS: SAME AS ABOVE								
DTW (FEET)	3.20	WATER APPEARANCE / ODOR: CLEAR, NO ODOR								
SAMPLE TIME	1140	COMMENTS: COLLECTED FB102816@1105, ~~EDLE~~ COLLECTED DUP01								

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-29	1140	40 ML VOA	6	HCL
		1 L AMBER	2	—
		250 ML AMBER	1	—
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	—

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-27		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	10.28.16	Initial	1230	7.12	18.6	8617	—	—	85.7	125.1
GAUGE TIME	1225	1	1232	7.05	17.2	8831	—	—	54.1	126.2
DHC (FEET)	ND	2	1234	7.06	17.1	8986	—	—	43.8	129.9
DTW (FEET)	8.10	3	1236	7.05	17.0	8980	—	—	39.4	128.1
DTB (FEET)	14.73	4								
DTB - DTW	6.63	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

1.08

PURGING DATA

3 WELL VOLUMES	3.24
PURGE DATE	10.28.16
END OF PURGE TIME	1236
PURGE AMOUNT	3.25
DTW (FEET)	11.40

WEATHER CONDITIONS: ~~CLEAR~~, LIGHT SOUTH WIND, 75°, PARTLY CLOUDY

WATER APPEARANCE / ODOR: CLEAR, NO ODOR

COMMENTS:

SAMPLING DATA

SAMPLE DATE	10.28.16
DTW (FEET)	11.40
SAMPLE TIME	1255

WEATHER CONDITIONS: SAME AS ABOVE

WATER APPEARANCE / ODOR: CLEAR / NO ODOR

COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-27	1255	40 ML VOA	6	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE

SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-28		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	10.28.16	Initial	1346	7.60	21.4	2621	—	—	92.6	108.4
GAUGE TIME	1340	1	1348	7.59	21.2	2530	—	—	67.2	111.3
DHC (FEET)	ND	2	1350	7.49	21.2	2603	—	—	57.4	110.4
DTW (FEET)	9.26	3	1351	7.46	21.2	2610	—	—	48.8	110.9
DTB (FEET)	16.15	4	1353	7.46	21.2	2610	—	—	46.7	109.1
DTB - DTW	6.89	5	1355	7.45	21.2	~~6626~~ 2611	—	—	42.5	110.0
CAPACITY PER FOOT	0.74 - 4"	6	1357	7.45	21.2	2615	—	—	43.8	110.2
	0.163 - 2"									
	1.12									

PURGING DATA

3 WELL VOLUMES	3.36	WEATHER CONDITIONS: PARTLY CLOUDY, SOUTH WIND, 74°
PURGE DATE	10.28.16	WATER APPEARANCE / ODOR: CLEAR / NO ODOR → CLOUDY, BROWN
END OF PURGE TIME	1357	COMMENTS:
PURGE AMOUNT	3.5	
DTW (FEET)	13.20	

SAMPLING DATA

SAMPLE DATE	10.28.16	WEATHER CONDITIONS: SAME AS ABOVE
DTW (FEET)	13.20	WATER APPEARANCE / ODOR: CLOUDY, BROWN, NO ODOR
SAMPLE TIME	1415	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-28	1415	40 ML VOA	6	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE: [signature]

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-24		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	10.28.16	Initial	0803	7.01	12.8	3335	—	-	25.7	118.8
GAUGE TIME	0755	1	0806	6.94	12.8	3420	—	—	32.0	97.5
DHC (FEET)	ND	2	0809	6.97	12.7	3427	—	—	20.4	86.6
DTW (FEET)	22.34	3	0812	6.99	12.7	3320	—	—	22.4	75.5
DTB (FEET)	30.76	4		BAILED DRY @ 3.5 GALLONS						
DTB - DTW	8.42	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

1.37

PURGING DATA

3 WELL VOLUMES	4.11	WEATHER CONDITIONS: CLOUDY, CALM, 49°
PURGE DATE	10.28.14	WATER APPEARANCE / ODOR: CLOUDY, PINK, NO ODOR
END OF PURGE TIME	0815	COMMENTS:
PURGE AMOUNT	3.5	
DTW (FEET)	30.51	

SAMPLING DATA

SAMPLE DATE	10.28.16	WEATHER CONDITIONS: CLOUDY 75° SOUTH WIND
DTW (FEET)	22.60	WATER APPEARANCE / ODOR: CLEAR, NO ODOR
SAMPLE TIME	1500	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-24	1500	40 ML VOA	9	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTEFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-02		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	10.28.16 MKTF-02	Initial	0903	7.34	~~27.5~~ 14.3	2775	—	—	26.2	34.4
GAUGE TIME	0835	1	0906	~~7.~~ 24	14.05	2818	—	—	18~~.~~.7	27.0
DHC (FEET)	ND	2	0909	7.29	14.1	2923	—	—	17.7	13.0
DTW (FEET)	8.55	3	0912	7.29	14.0	3040	—	—	19.6	0.9
DTB (FEET)	20.50	4		BAILED DRY @ 18 GALLONS						
DTB - DTW	11.95	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

8.84

PURGING DATA

3 WELL VOLUMES	26.5
PURGE DATE	10.28.16
END OF PURGE TIME	0915
PURGE AMOUNT	18
DTW (FEET)	20.00

WEATHER CONDITIONS: CLOUDY, CALM, 53°

WATER APPEARANCE / ODOR: CLEAR, ODOR → CLOUDY, PINK

COMMENTS: BAILED DRY

SAMPLING DATA

SAMPLE DATE	10.28.16
DTW (FEET)	16.60
SAMPLE TIME	1530

WEATHER CONDITIONS: CLOUDY, SOUTH WIND, 75°

WATER APPEARANCE / ODOR: CLEAR, ODOR

COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-02	1530	40 ML VOA	9	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		1250 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
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WELL ID		TEST PARAMETERS								
~~MKTF~~ MKTF-01		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	10.28.16	Initial								
GAUGE TIME	1550	1								
DHC (FEET)	7.53	2		DID NOT SAMPLE						
DTW (FEET)	8.88	3		1.35 FEET OF HC IN WELL						
DTB (FEET)	17.43	4								
DTB - DTW	NA	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES		WEATHER CONDITIONS:
PURGE DATE		WATER APPEARANCE / ODOR:
END OF PURGE TIME		COMMENTS:
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA

SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED GEOTECH INTERFACE PROBE

COMPLETED BY: TRACY PAYNE SIGNATURE:

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WELL ID		TEST PARAMETERS								
MKTF-26		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	10.28.16	Initial								
GAUGE TIME	1555	1								
DHC (FEET)	9.36	2			DID	NOT SAMPLE				
DTW (FEET)	10.75	3		1.39	FEET	OF HC IN	WELL			
DTB (FEET)	17.16	4								
DTB - DTW	NA	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES		WEATHER CONDITIONS:
PURGE DATE		WATER APPEARANCE / ODOR:
END OF PURGE TIME		COMMENTS:
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA

SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED GEOTECH INTERFACE PROBE

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
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WELL ID		TEST PARAMETERS								
MKTF-30		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	10.28.16	Initial	0957	7.20	16.9	4452	—	—	35.6	46.0
GAUGE TIME	0950	1	0959	7.22	16.7	4575	—	—	29.5	44.2
DHC (FEET)	ND	2	1001	7.19	16.6	4648	—	—	33.7	42.7
DTW (FEET)	15.70	3	1002	7.22	16.5	40322	—	—	42.6	42.5
DTB (FEET)	23.20	4	1003	7.23	16.4	4793	—	—	29.5	41.3
DTB - DTW	7.5	5	1005	7.30	16.4	4673	—	—	44.0	40.4
CAPACITY PER FOOT	0.74 - 4"	6		BAILED DRY @ 3.5 GALLONS						
	0.163 - 2"									
1.22		PURGING DATA								
3 WELL VOLUMES	3.67	WEATHER CONDITIONS: PARTLY CLOUDY, LIGHT SE WIND, 55°								
PURGE DATE	10.28.16	WATER APPEARANCE / ODOR: CLEAR, NO ODOR → CLOUDY, PINKISH BROWN								
END OF PURGE TIME	1007	COMMENTS:								
PURGE AMOUNT	3.5									
DTW (FEET)	22.80									
		SAMPLING DATA								
SAMPLE DATE	10.28.16	WEATHER CONDITIONS: CLOUDY, SW WIND 75°								
DTW (FEET)	15.67	WATER APPEARANCE / ODOR: CLEAR, NO ODOR								
SAMPLE TIME	1630	COMMENTS:								

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-30	1630	40 ML VOA	9	HCL
		1 L AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		250 ML AMBER	1	NEAT
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PROPLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-40		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	10.31.16	Initial	1032	6.80	15.2	9120	—	—	123.3	240.0
GAUGE TIME	1025	1	1034	7.04	15.7	8644	—	—	65.5	225.5
DHC (FEET)	ND	2	1036	7.05	15.5	9529	—	—	65.8	223.0
DTW (FEET)	13.576	3	1038	7.05	15.4	10543	—	—	61.6	222.4
DTB (FEET)	23.63	4	1040	7.02	15.1	11896	—	—	59.1	222.9
DTB - DTW	9.87	5	1042	7.02	15.1	11950	—	—	58.7	224.4
CAPACITY PER FOOT	0.74 - 4"	6	1044	7.01	15.0	12506	—	—	53.6	224.1
	0.163 - 2"									

1.61 /

PURGING DATA

3 WELL VOLUMES	4.82	WEATHER CONDITIONS: CLEAR, STRONG SW WIND 63°
PURGE DATE	10.31.16	WATER APPEARANCE / ODOR: CLEAR => CLOUDY, NO ODOR
END OF PURGE TIME	1044	COMMENTS:
PURGE AMOUNT	5 GALS	
DTW (FEET)	20.65	

SAMPLING DATA

SAMPLE DATE	10.31.16	WEATHER CONDITIONS: SAME AS ABOVE
DTW (FEET)	20.65	WATER APPEARANCE / ODOR: CLOUDY, NO ODOR
SAMPLE TIME	1100	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-40	1100	40 ML VOA	5	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE: TP

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-43		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	10.31.16	Initial	1136	6.11	15.2	50884	—	—	31.4	231.5
GAUGE TIME	1130	1	1138	6.32	15.1	52237	—	—	22.2	208.2
DHC (FEET)	ND	2	1140	6.30	15.2	52736	—	—	20.1	198.4
DTW (FEET)	5.12	3	1142	6.32	15.3	53545	—	—	19.5	191.5
DTB (FEET)	15.40	4	1144	6.33	15.4	54202	—	—	18.0	187.2
DTB - DTW	10.28	5	1146	6.34	15.5	54702	—	—	17.7	182.9
CAPACITY PER FOOT	0.74 - 4"	6	1148	6.35	15.5	55110	—	—	20.1	179.7
	0.163 - 2"									

1.68

PURGING DATA

3 WELL VOLUMES	5.02	WEATHER CONDITIONS: PARTLY CLOUDY, ~~56~~ STRONG SW WIND, 67°
PURGE DATE	10.31.16	WATER APPEARANCE / ODOR: CLEAR / NO ODOR
END OF PURGE TIME	1148	COMMENTS:
PURGE AMOUNT	5.25	
DTW (FEET)	8.50	

SAMPLING DATA

SAMPLE DATE	10.31.16	WEATHER CONDITIONS: SAME AS ABOVE
DTW (FEET)	8.50	WATER APPEARANCE / ODOR: CLEAR / NO ODOR
SAMPLE TIME	1200	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-43	1200	40 ML VOA	5	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-42		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	10.31.16	Initial	1238	7.66	15.9	3274	—	—	29.0	145.9
GAUGE TIME	1230	1	1241	7.83	14.7	3940	—	—	19.1	139.7
DHC (FEET)	ND	2	1243	7.82	14.2	3908	—	—	16.2	143.9
DTW (FEET)	17.25	3	1245	7.85	14.0	3827	—	—	15.2	146.2
DTB (FEET)	33.20	4	1247	7.97	13.8	3893	—	—	15.6	145.4
DTB - DTW	15.95	5	1250	7.97	13.7	3826	—	—	16.8	142.4
CAPACITY PER FOOT	0.74 - 4"	6	1253	7.96	13.6	3849	—	—	19.8	129.6
	0.163 - 2"									

2.60

PURGING DATA

3 WELL VOLUMES	7.80
PURGE DATE	10.31.15
END OF PURGE TIME	1253
PURGE AMOUNT	8.00
DTW (FEET)	26.50

WEATHER CONDITIONS: PARTLY CLOUDY, STRONG SW WIND, 72°

WATER APPEARANCE / ODOR: CLEAR, ~~A&~~ AMBER, ODOR

COMMENTS:

SAMPLING DATA

SAMPLE DATE	10.31.15
DTW (FEET)	26.50
SAMPLE TIME	1310

WEATHER CONDITIONS: SAME AS ABOVE

WATER APPEARANCE / ODOR: CLEAR, AMBER, ODOR

COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-42	1310	40 ML VOA	5	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
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WELL ID		TEST PARAMETERS								
MKTF-32		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	10.31.16	Initial	1340	7.72	15.7	2708	—	—	105.7	162.4
GAUGE TIME	1335	1	1343	7.78	14.9	2710	—	—	55.4	158.4
DHC (FEET)	ND	2	1345	7.76	14.6	2823	—	—	30.4	152.2
DTW (FEET)	14.16	3	1347	7.77	14.4	2983	—	—	22.1	159.4
DTB (FEET)	27.76	4	1349	7.81	14.2	2875	—	—	20.5	158.8
DTB - DTW	13.60	5	1351	7.81	14.1	2892	—	—	20.9	158.1
CAPACITY PER FOOT	0.74 - 4"	6	1353	7.81	14.0	2910	—	—	18.2	158.4
	0.163 - 2"									

2.21

PURGING DATA

3 WELL VOLUMES	6.65
PURGE DATE	10.31.16
END OF PURGE TIME	1353
PURGE AMOUNT	6.75
DTW (FEET)	22.30

WEATHER CONDITIONS: PARTLY CLOUDY, STRONG SW WIND, 75°

WATER APPEARANCE / ODOR: CLEAR, NO ODOR

COMMENTS:

SAMPLING DATA

SAMPLE DATE	10.31.16
DTW (FEET)	22.30
SAMPLE TIME	1415

WEATHER CONDITIONS: SAME AS ABOVE

WATER APPEARANCE / ODOR: CLEAR, NO ODOR

COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-32	1415	40ML VOA	5+3	HCL
		1L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE

SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
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WELL ID		TEST PARAMETERS								
MKTF-41		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	10.31.16	Initial	1444	8.31	14.9	3219	—	—	120.3	178.1
GAUGE TIME	1438	1	1447	8.28	13.8	3196	—	—	54.9	175.2
DHC (FEET)	ND	2	1450	8.24	13.4	3185	—	—	58.4	175.0
DTW (FEET)	20.00	3	1453	8.25	13.2	3175	—	—	54.3	175.1
DTB (FEET)	39.72	4	1456	8.27	13.1	3167	—	—	52.7	174.9
DTB - DTW	19.72	5	1459	8.28	13.1	3169	—	—	47.4	174.9 ~~174.9~~
CAPACITY PER FOOT	0.74 - 4"	6	1502	8.28	13.1	3166	—	—	35.0	174.8 ~~174.9~~
	0.163 - 2"									
3.21		PURGING DATA								
3 WELL VOLUMES	9.64	WEATHER CONDITIONS: PARTLY CLOUDY, STRONG SW WIND, 75°								
PURGE DATE	10.31.16	WATER APPEARANCE / ODOR: CLEAR, NO ODOR - LIGHT BROWN								
END OF PURGE TIME	1502	COMMENTS:								
PURGE AMOUNT	9.75									
DTW (FEET)	33.63									
SAMPLING DATA										
SAMPLE DATE	10.31.16	WEATHER CONDITIONS:								
DTW (FEET)	31.75	WATER APPEARANCE / ODOR:								
SAMPLE TIME	1540	COMMENTS: COLLECTED FB103116 @ 1515 FULL SUITE + 3XTRA VOA								

SAMPLE LOG 8011

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-41	1540	40 ML VOA	5+3	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-31		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	10.31.16 ~~MKTF~~	Initial	0907	6.40	16.4	3022	—	—	32.1	137.7
GAUGE TIME	0902	1	0910	6.90	16.6	3572	—	—	17.2	122.2
DHC (FEET)	ND	2	0913	6.90	16.7	3571	—	—	16.0	118.6
DTW (FEET)	8.45	3	0916	6.98	16.7	3520	—	—	21.6	116.7
DTB (FEET)	22.40	4	0919	6.98	16.7	3490	—	—	21.6	115.7
DTB - DTW	13.95	5	0922	7.00	16.7	3465	—	—	21.0	114.9
CAPACITY PER FOOT	0.74 - 4"	6	0925	7.01	16.7	3454	—	—	25.9	114.7
	0.163 - 2"									

2.27	PURGING DATA
3 WELL VOLUMES: 6.82	WEATHER CONDITIONS: CLEAR, LT WEST WIND 50°
PURGE DATE: 10.31.16	WATER APPEARANCE / ODOR: CLEAR → CLOUDY, NO ODOR
END OF PURGE TIME: 0925	COMMENTS:
PURGE AMOUNT: 7.00	
DTW (FEET): 10.15	

SAMPLING DATA	
SAMPLE DATE: 10.31.16	WEATHER CONDITIONS: SAME AS ABOVE
DTW (FEET): 10.15	WATER APPEARANCE / ODOR: CLOUDY, NO ODOR
SAMPLE TIME: 0945	COMMENTS: COLLECTED ~~AMBIENT~~ DUPOZ

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-31	0945	40 ML VOA	8	HCL
		1 LITER AMBER	2	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-44		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	10.31.16	Initial	0742	7.95	12.3	1895	—	—	97.9	212.6
GAUGE TIME	0735	1	0745	8.07	12.3	1888	—	—	71.5	201.7
DHC (FEET)	ND	2	0748	8.07	12.3	1922	—	—	69.9	201.7
DTW (FEET)	40.70	3	0751	8.09	12.3	1940	—	—	65.8	201.6
DTB (FEET)	51.18	4	0754	8.11	12.3	1968	—	—	63.6	200.9
DTB - DTW	10.48	5	0757	8.18	12.3	1855	—	—	44.3	198.9
CAPACITY PER FOOT	0.74 - 4"	6	0800	8.18	12.3	1875	—	—	40.9	199.1
	0.163 - 2"									

1.71

PURGING DATA		
3 WELL VOLUMES	5.12	WEATHER CONDITIONS: CLEAR CALM 43°
PURGE DATE	10.31.16	WATER APPEARANCE / ODOR: CLEAR → CLOUDY, BROWN, NO ODOR
END OF PURGE TIME	0800	COMMENTS:
PURGE AMOUNT	5.25	
DTW (FEET)	50.98	

SAMPLING DATA		
SAMPLE DATE	11.1.16	WEATHER CONDITIONS: CLOUDY, LIGHT WEST WIND, 45°
DTW (FEET)	48.70	WATER APPEARANCE / ODOR: CLEAR, NO ODOR
SAMPLE TIME	0745	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-44	0745	40 ML VOA	5	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE: [signature]

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-25		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	10.31.16	Initial	0823	6.74	13.6	3050	—	—	57.0	148.7
GAUGE TIME	0817	1	0825	6.77	14.0	3119	—	—	24.5	102.8
DHC (FEET)	ND	2	0827	6.80	14.1	3216	—	—	17.9	84.7
DTW (FEET)	11.45	3	0829	6.82	14.2	3247	—	—	19.2	75.2
DTB (FEET)	19.85	4	0831	6.85	14.2	3267	—	—	23.2	68.4
DTB - DTW	8.40	5	0833	6.87	14.2	3266	—	—	24.1	62.2
CAPACITY PER FOOT	0.74 - 4"	6	0835	6.89	14.2	3280	—	—	21.5	60.6
	0.163 - 2"									
1.34										

PURGING DATA

3 WELL VOLUMES	4.11	WEATHER CONDITIONS: CLEAR, CALM, 45°
PURGE DATE	10.31.16	WATER APPEARANCE / ODOR: CLEAR → CLOUDY, PINKISH BROWN, ODOR
END OF PURGE TIME	0835	COMMENTS:
PURGE AMOUNT	4.25	
DTW (FEET)	11.97	

SAMPLING DATA

SAMPLE DATE	11.1.16	WEATHER CONDITIONS: CLOUDY, LIGHT WEST WIND 45°
DTW (FEET)	11.40	WATER APPEARANCE / ODOR: CLEAR → PINK, ODOR
SAMPLE TIME	0820	COMMENTS: COLLECTED DUP03 AT THIS WELL

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-25	0820	40 ML VOA	5+3	HCL
		1 L AMBER	2	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE: [signature]

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-23		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.1.16	Initial								
GAUGE TIME	1112	1								
DHC (FEET)	14.80	2		NO SAMPLES COLLECTED						
DTW (FEET)	14.92	3		0.12' OF HC DETECTED IN WELL						
DTB (FEET)	20.37	4								
DTB - DTW	NA	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA		
3 WELL VOLUMES		WEATHER CONDITIONS:
PURGE DATE		WATER APPEARANCE / ODOR:
END OF PURGE TIME		COMMENTS:
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA		
SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED: GEOTECH INTERFACE PROBE

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-14		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.1.16	Initial								
GAUGE TIME	1116	1								
DHC (FEET)	7.45	2		NO SAMPLES COLLECTED						
DTW (FEET)	8.55	3		1.10' OF HC DETECTED IN WELL						
DTB (FEET)	17.46	4								
DTB - DTW	NA	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES		WEATHER CONDITIONS:
PURGE DATE		WATER APPEARANCE / ODOR:
END OF PURGE TIME		COMMENTS:
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA

SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED GEOTECH INTERFACE PROBE

COMPLETED BY: TRACY PAYNE SIGNATURE: [signature]

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-13		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.1.16	Initial								
GAUGE TIME	1121	1								
DHC (FEET)	14.01	2		NO SAMPLES COLLECTED						
DTW (FEET)	14.97	3		0.96	OF HC DETECTED IN WELL					
DTB (FEET)	21.22	4								
DTB - DTW	NA	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA		
3 WELL VOLUMES		WEATHER CONDITIONS:
PURGE DATE		WATER APPEARANCE / ODOR:
END OF PURGE TIME		COMMENTS:
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA		
SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED GEOTECH INTERFACE PROBE

COMPLETED BY: TRACY PAYNE SIGNATURE: [signature]

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-12		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.1.16	Initial								
GAUGE TIME	1127	1								
DHC (FEET)	19.33	2		NO SAMPLES COLLECTED						
DTW (FEET)	19.62	3		0.29' OF HC DETECTED IN WELL						
DTB (FEET)	25.62	4								
DTB - DTW	NA	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES		WEATHER CONDITIONS:
PURGE DATE		WATER APPEARANCE / ODOR:
END OF PURGE TIME		COMMENTS:
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA

SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED: GEOTECH INTERFACE PROBE

COMPLETED BY: TRACY PAYNE SIGNATURE: [signature]

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-33		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.1.16	Initial	1038	7.10	13.2	1677	—	—	24.3	22.2
GAUGE TIME	1027	1	1039	7.21	12.9	1693	—	—	28.8	24.4
DHC (FEET)	ND	2	1041	7.20	12.9	1701	—	—	34.0	22.1
DTW (FEET)	22.95	3	1043	7.24	12.8	1744	—	—	30.7	22.8
DTB (FEET)	33.23	4	1045	7.28	12.7	1725	—	—	25.7	24.2
DTB - DTW	10.28	5	1047	7.26	12.7	1756	—	—	21.9	25.2
CAPACITY PER FOOT	0.74 - 4"	6	1049	7.25	12.7	1761	—	—	24.7	27.7
	0.163 - 2"									

1.68

PURGING DATA

3 WELL VOLUMES	5.02	WEATHER CONDITIONS: PARTLY CLOUDY, SW WIND, 64°
PURGE DATE	11.1.16	WATER APPEARANCE / ODOR: CLEAR → CLOUDY, PINK, NO ODOR
END OF PURGE TIME	1049	COMMENTS:
PURGE AMOUNT	5.25	
DTW (FEET)	28.25	

SAMPLING DATA

SAMPLE DATE	11.1.16	WEATHER CONDITIONS: PARTLY CLOUDY, SW WIND, 65°
DTW (FEET)	23.00	WATER APPEARANCE / ODOR: CLEAR, NO ODOR
SAMPLE TIME	1305	COMMENTS: COLLECTED FB110116 AT 1325

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-33	1305	40 ML VOA	5	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-22		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11-1-16	Initial	1000	6.52	13.7	1820	—	—	61.6	46.6
GAUGE TIME	0953	1	1003	6.90	13.0	1755	—	—	30.7	-28.8
DHC (FEET)	ND	2	1005	7.03	12.6	1755	—	—	29.2	-42.9
DTW (FEET)	26.05	3	1008	7.10	12.5	1801	—	—	21.3	-45.0
DTB (FEET)	35.62	4	1011	7.08	12.6	1803	—	—	18.0	-46.0
DTB - DTW	9.57	5	1013	7.06	12.8	1797	—	—	16.1	-46.7
CAPACITY PER FOOT	0.74 - 4"	6		BAILED DRY AT 4 GALS						
	0.163 - 2"									
1.56		PURGING DATA								
3 WELL VOLUMES	4.68	WEATHER CONDITIONS: PARTLY CLOUDY, SW WIND, 57°								
PURGE DATE	11-1-16	WATER APPEARANCE / ODOR: CLEAR → CLOUDY - PINK, ODOR								
END OF PURGE TIME	1013	COMMENTS:								
PURGE AMOUNT	4 GALS									
DTW (FEET)	35.01									
		SAMPLING DATA								
SAMPLE DATE	11-1-16	WEATHER CONDITIONS: PARTLY CLOUDY, SW WIND, 71°								
DTW (FEET)	26.10	WATER APPEARANCE / ODOR: CLOUDY, ODOR								
SAMPLE TIME	1355	COMMENTS:								

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-22	1355	40 ML VOA	5	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-38		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.1.16	Initial	1447	6.88	18.5	2075	—	—	13.6	100.7
GAUGE TIME	1492 ~~1422~~	1	1450	6.78	18.1	2120	—	—	11.7	72.9
DHC (FEET)	ND	2	1453	6.88	17.8	2137	—	—	17.8	59.9
DTW (FEET)	7.50	3	1455	6.93	17.8	2085	—	—	14.0	56.1
DTB (FEET)	20.30	4	1457	6.94	17.8	2062	—	—	14.0	53.5
DTB - DTW	12.80	5	1459	6.95	17.8	2028	—	—	16.0	51.1
CAPACITY PER FOOT	0.74 - 4"	6	1501	6.95	17.7	2025	—	—	15.7	50.0
	0.163 - 2"									

2.10 ✓

PURGING DATA

3 WELL VOLUMES	6.25	WEATHER CONDITIONS: PARTLY ~~CO~~ CLOUDY, SW WIND, 68°
PURGE DATE	11.1.16	WATER APPEARANCE / ODOR: CLEAR → CLOUDY, PINK, FAINT ODOR
END OF PURGE TIME	1501	COMMENTS:
PURGE AMOUNT	6.25	
DTW (FEET)	9.00	

SAMPLING DATA

SAMPLE DATE	11.1.16	WEATHER CONDITIONS: SAME AS ABOVE
DTW (FEET)	9.00	WATER APPEARANCE / ODOR: CLEAR, FAINT ODOR
SAMPLE TIME	1515	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-38	1515	40 ML VOA	5	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-39		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.1.16	Initial	1603	6.63	19.2	5509	—	—	22.0	-6.8
GAUGE TIME	15,56	1	1604	6.81	18.9	5643	—	—	19.8	-42.2
DHC (FEET)	ND	2	1606	6.96	18.9	5680	—	—	20.9	-56.5
DTW (FEET)	7.80	3	1607	6.93	18.9	5730	—	—	16.4	-65.1
DTB (FEET)	15.20	4	1608	6.97	18.9	5737	—	—	12.7	-70.7
DTB - DTW	7.40	5	1610	7.00	18.9	5725	—	—	13.0	-75.1
CAPACITY PER FOOT	0.74 - 4"	6	1612	7.01	18.9	5728	—	—	14.0	-78.6
	0.163 - 2"									

1.2

PURGING DATA

3 WELL VOLUMES	3.6	WEATHER CONDITIONS: PARTLY CLOUDY, SW WIND, 70°
PURGE DATE	11.1.16	WATER APPEARANCE / ODOR: CLEAR/ODOR → CLOUDY, GREY
END OF PURGE TIME	1612	COMMENTS:
PURGE AMOUNT	3.75	
DTW (FEET)	9.20	

SAMPLING DATA

SAMPLE DATE	11.1.16	WEATHER CONDITIONS: SAME AS ABOVE
DTW (FEET)	9.20	WATER APPEARANCE / ODOR: CLOUDY-GREY /ODOR
SAMPLE TIME	1625	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-39	1625	40 ML VOA	5	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE: [signature]

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-11		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.2.16	Initial	0839	6.63	14.0	4078	—	—	88.2	7.6
GAUGE TIME	0833	1	0842	7.00	16.5	4292	—	—	19.1	-72.8
DHC (FEET)	ND	2	0845	7.13	16.6	4620	—	—	18.7	-94.3
DTW (FEET)	8.65	3	0848	7.19	16.5	4770	—	—	17.2	-96.0
DTB (FEET)	18.33	4	0851	7.14	16.4	4987	—	—	20.2	-91.6
DTB - DTW	9.68	5	0854	7.14	16.4	5009	—	—	18.5	-86.7
CAPACITY PER FOOT	0.74 - 4"	6	0857	7.13	16.3	5175	—	—	20.0	-82.4
	0.163 - 2"									

7.16

PURGING DATA

3 WELL VOLUMES	21.49	WEATHER CONDITIONS: PARTLY CLOUDY, CALM, 36°
PURGE DATE	11.2.16	WATER APPEARANCE / ODOR: CLEAR → CLOUDY, GREY, ODOR
END OF PURGE TIME	0857	COMMENTS:
PURGE AMOUNT	22	
DTW (FEET)	14.55	

SAMPLING DATA

SAMPLE DATE	11.2.16	WEATHER CONDITIONS: CLOUDY, SOUTH WIND, 69°
DTW (FEET)	8.80	WATER APPEARANCE / ODOR: CLEAR, ODOR
SAMPLE TIME	1440	COMMENTS: COLLECTED DUPOH, COLLECTED FB110216@ 1500

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-11	1440	40 ML VOA	5	HCL
		1 L AMBER	2	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

16

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-04		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.2.16	Initial	0748	7.05	13.7	2176	—	—	71.4	+33.6
GAUGE TIME	0740	1	0752	6.96	14.9	2325	—	—	26.2	-68.5
DHC (FEET)	ND	2	0755	7.02	14.9	2356	—	—	30.0	-77.6
DTW (FEET)	10.40	3	0759	7.09	14.7	2240	—	—	21.7	-85.1
DTB (FEET)	22.20	4		BAILED DRY @ 14.5 GALS						
DTB - DTW	11.80	5								
CAPACITY PER FOOT	• 0.74 - 4"	6								
	0.163 - 2"									

8.73

PURGING DATA

3 WELL VOLUMES	26.20	WEATHER CONDITIONS: CLEAR, CALM, 40°
PURGE DATE	11.2.16	WATER APPEARANCE / ODOR: CLEAR - ODOR - SHEEN
END OF PURGE TIME	0805	COMMENTS:
PURGE AMOUNT	14.5	
DTW (FEET)	21.80	

SAMPLING DATA

SAMPLE DATE	11.2.16	WEATHER CONDITIONS: CLOUDY, SOUTH WIND, 64°
DTW (FEET)	10.55	WATER APPEARANCE / ODOR: CLEAR, ODOR
SAMPLE TIME	1535	COMMENTS: HC ON OUTSIDE OF BAILER

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-04	1535	40 ML VOA	5	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
↓	↓	500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-10		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.2.16	Initial	0932	6.55	16.2	2452	—	—	27.8	-40.9
GAUGE TIME	0926	1	0935	6.86	16.7	2469	—	—	21.2	-86.6
DHC (FEET)	ND	2		DRY @ 6 GALLONS						
DTW (FEET)	8.25	3								
DTB (FEET)	16.08	4								
DTB - DTW	7.83	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

5.79	PURGING DATA
3 WELL VOLUMES: 17.38	WEATHER CONDITIONS: CLEAR, CALM, 49°
PURGE DATE: 11.2.16	WATER APPEARANCE / ODOR: CLEAR → CLOUDY - PINKISH BROWN, ODOR
END OF PURGE TIME: 0938	COMMENTS:
PURGE AMOUNT: 6	
DTW (FEET): 15.85	

SAMPLING DATA	
SAMPLE DATE: 11.2.16	WEATHER CONDITIONS: CLOUDY, EAST WIND 62°
DTW (FEET): 9.30	WATER APPEARANCE / ODOR: CLEAR, ODOR
SAMPLE TIME: 1620	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-10	1620	40 ML VOA	5	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
↓	↓	500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE: [signature]

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-09		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.2.16	Initial	1007	6.81	14.6	1774	—	—	24.4	-8.5
GAUGE TIME	1002	1	1010	6.96	14.8	1817	—	—	17.0	-36.7
DHC (FEET)	ND	2	1013	7.06	14.6	1865	—	—	17.5	-55.8
DTW (FEET)	14.10	3	1016	7.04	14.6	1864	—	—	18.5	-67.7
DTB (FEET)	22.75	4	1019	7.06	14.6	1855	—	—	16.3	-74.1
DTB - DTW	8.65	5	1022	7.07	14.6	1821	—	—	19.1	-77.5
CAPACITY PER FOOT	0.74 - 4"	6			BAILED DOWN @		16.5 GALS			
	0.163 - 2"									

6.40

PURGING DATA

3 WELL VOLUMES	19.20
PURGE DATE	11.2.16
END OF PURGE TIME	1022
PURGE AMOUNT	16.5
DTW (FEET)	21.22

WEATHER CONDITIONS: CLEAR, CALM, 58°

WATER APPEARANCE / ODOR: CLEAR; ODOR, SHEEN

COMMENTS:

SAMPLING DATA

SAMPLE DATE	11.2.16
DTW (FEET)	1412
SAMPLE TIME	1655

WEATHER CONDITIONS: CLOUDY, EAST WIND

WATER APPEARANCE / ODOR: CLEAR, ODOR

COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-09	1655	40 ML VOA	5	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
↓	↓	500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE

SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-15		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.2.16	Initial	11:01	6.45	17.1	10838	—	—	16.8	-19.1
GAUGE TIME	1056	1	11:03	6.60	17.1	11142	—	—	24.2	-51.1
DHC (FEET)	ND	2	11:05	6.65	17.1	11184	—	—	13.2	-67.5
DTW (FEET)	12.90	3	1107	6.66	17.1	11179	—	—	13.6	-70.9
DTB (FEET)	19.50	4	1109	6.70	17.1	11187	—	—	16.4	-74.4
DTB - DTW	6.60	5	1111	6.75	17.0	11182	—	—	~~16~~ 15.0	-76.4
CAPACITY PER FOOT	0.74 - 4"	6	1113	6.76	17.0	11167	—	—	17.3	-79.7
	0.163 - 2"									
1.08		PURGING DATA								

3 WELL VOLUMES	3.24	WEATHER CONDITIONS: CLEAR, CALM
PURGE DATE	11.2.16	WATER APPEARANCE / ODOR: CLEAR -> CLOUDY GREY, ODOR
END OF PURGE TIME	1113	COMMENTS:
PURGE AMOUNT	3.5	
DTW (FEET)	14.00	

SAMPLING DATA

SAMPLE DATE	11.2.16	WEATHER CONDITIONS: CLOUDY, EAST WIND
DTW (FEET)	13.00	WATER APPEARANCE / ODOR: CLEAR, ODOR, SHEEN
SAMPLE TIME	1715	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-15	1715	40 ML VOA	5	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
↓	↓	500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

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WELL ID		TEST PARAMETERS								
MKTF-21		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.2.16	Initial	1316	~~8.17~~ 6.70	20.5	1649	—	—	11.3	-52.7
GAUGE TIME	1311	1	1318	6.71	20.2	1590	—	—	14.4	-71.4
DHC (FEET)	ND	2	1320	6.77	19.9	1606	—	—	20.5	-81.9
DTW (FEET)	6.30	3		BAILED DRY @ 2 GALS						
DTB (FEET)	8.79	4								
DTB - DTW	2.49	5								
CAPACITY PER FOOT	• 0.74 - 4"	6								
	0.163 - 2"									

1.84

PURGING DATA

3 WELL VOLUMES	5.52	WEATHER CONDITIONS: PARTLY CLOUDY, SOUTH WIND, 75°
PURGE DATE	11.2.16	WATER APPEARANCE / ODOR: CLEAR, GRAY, ODOR
END OF PURGE TIME	1320	COMMENTS:
PURGE AMOUNT	2	
DTW (FEET)	8.51	

SAMPLING DATA

SAMPLE DATE	11.3.16	WEATHER CONDITIONS: CLOUDY, CALM, 50°
DTW (FEET)	6.97	WATER APPEARANCE / ODOR: GRAY, ODOR
SAMPLE TIME	0805	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-21	0805	40ML VOA	5	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 Ml PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
↓	↓	500 Ml PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

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WELL ID		TEST PARAMETERS								
MKTF-20		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.2.16	Initial	1250	6.50	21.7	5048	—	—	38.7	-53.4
GAUGE TIME	1245	1	1251	6.63	21.8	5078	—	—	16.0	-82.3
DHC (FEET)	ND	2	1253	6.63	21.8	5115	—	—	13.5	-92.0
DTW (FEET)	7.10	3	BAILED DRY @ 2.5 GALLONS							
DTB (FEET)	9.55	4								
DTB - DTW	2.45	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

1.81

PURGING DATA

3 WELL VOLUMES	5.43	WEATHER CONDITIONS: CLEAR, SOUTH WIND, 75°
PURGE DATE	11.2.16	WATER APPEARANCE / ODOR: CLEAR, GREY, ODOR, SHEEN
END OF PURGE TIME	1255	COMMENTS:
PURGE AMOUNT	2.5	
DTW (FEET)	9.27	

SAMPLING DATA

SAMPLE DATE	11.3.16	WEATHER CONDITIONS: CLOUDY, SOUTH WIND, 49°
DTW (FEET)	7.15	WATER APPEARANCE / ODOR:
SAMPLE TIME	0900	COMMENTS: COLLECTED DUP05; COLLECTED FB110316@0935

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-20	0900	40 ML VOA	5	HCL
		1 L AMBER	2	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
↓	↓	500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

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WELL ID		TEST PARAMETERS								
MKTF-16		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.2.16	Initial	1222	6.80	21.1	2664	—	—	42.4	-37.8
GAUGE TIME	12.17	1	1224	6.96	21.3	2551	—	—	26.9	-80.9
DHC (FEET)	ND	2	1225	7.03	21.3	2665	—	—	24.3	-87.0
DTW (FEET)	9.28	3	1227	7.05	21.3	2773	—	—	18.5	-89.4
DTB (FEET)	14.04	4	1229	7.07	21.2	2922	—	—	17.0	-89.2
DTB - DTW	4.76	5		BAILED DRY @ 2.25 GALS						
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

0.78

PURGING DATA

3 WELL VOLUMES	2.32	WEATHER CONDITIONS: CLEAR, SOUTH WIND, 66°
PURGE DATE	11.2.16	WATER APPEARANCE / ODOR: CLEAR / ODOR
END OF PURGE TIME	1230	COMMENTS:
PURGE AMOUNT	2.25 GALS	
DTW (FEET)	13.80	

SAMPLING DATA

SAMPLE DATE	11.3.16	WEATHER CONDITIONS: 3° CLEAR, SOUTH WIND, 52°
DTW (FEET)	12.60	WATER APPEARANCE / ODOR:
SAMPLE TIME	1010	COMMENTS: LOW YIELD - DID NOT COLLECT 500mL PLASTIC

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-16	1010	40 ML VOA	5	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
	**	500 ML PLASTIC (NOT COLLECTED)		

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

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WELL ID		TEST PARAMETERS								
MKTF-35		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.3.16	Initial	1457	6.83	18.7	1347	—	—	45.3	-31.3
GAUGE TIME	1450	1	1459	7.03	18.6	1371	—	—	24.4	-81.2
DHC (FEET)	ND	2	1501	7.07	18.6	1388	—	—	15.0	-92.9
DTW (FEET)	6.00	3	1503	7.09	18.6	1393	—	—	17.2	-97.2
DTB (FEET)	16.48	4	1505	7.10	18.5	1397	—	—	16.9	-99.6
DTB - DTW	10.48	5	1507	7.10	18.5	1402	—	—	16.0	-100.2
CAPACITY PER FOOT	0.74 - 4"	6	1509	7.11	18.5	1401	—	—	14.5	-102.3
	0.163 - 2"									

1.70

PURGING DATA

3 WELL VOLUMES	5.1	WEATHER CONDITIONS: CLEAR, STRONG SOUTH WIND, 70°
PURGE DATE	11.3.13	WATER APPEARANCE / ODOR: CLEAR, ODOR → CLOUDY GREY
END OF PURGE TIME	1509	COMMENTS:
PURGE AMOUNT	5.25	
DTW (FEET)	6.60	

SAMPLING DATA

SAMPLE DATE	11.3.13	WEATHER CONDITIONS: SAME AS ABOVE
DTW (FEET)	6.40	WATER APPEARANCE / ODOR: SAME AS ABOVE
SAMPLE TIME	1535	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-35	1535	40 ML VOA	5+3	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

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WELL ID		TEST PARAMETERS								
MKTF-37		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.3.16	Initial								
GAUGE TIME	1600	1		DID NOT COLLECT						
DHC (FEET)	ND	2		WQ PARAMETERS						
DTW (FEET)	7.09	3		HC IN WATER						
DTB (FEET)	24.80	4								
DTB - DTW	17.71	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

2.89

PURGING DATA

3 WELL VOLUMES	8.67	WEATHER CONDITIONS: CLOUDY SOUTH WIND, 65°
PURGE DATE	11.3.16	WATER APPEARANCE / ODOR: CLEAR → GREY → BLACK, ODOR, HEAVY SHEEN TO
END OF PURGE TIME	1620	COMMENTS: HC GOBULES IN
PURGE AMOUNT	9	PURGED WATER
DTW (FEET)	23.10	

SAMPLING DATA

SAMPLE DATE	11.3.16	WEATHER CONDITIONS: SAME AS ABOVE
DTW (FEET)	18.40	WATER APPEARANCE / ODOR: CLEAR, ODOR
SAMPLE TIME	1645	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-37	1645	40 ML VOA	5+3	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-17		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.7.16	Initial	0914	6.74	16.5	1413	—	—	36.9	182.3
GAUGE TIME	0908	1	0917	6.87	16.1	1500	—	—	19.0	85.4
DHC (FEET)	ND	2	0919	7.00	15.0	1551	—	—	22.0	-9.5
DTW (FEET)	8.95	3		DRY @ 2.5 GALLONS						
DTB (FEET)	24.60	4								
DTB - DTW	15.65	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

2.55

PURGING DATA

3 WELL VOLUMES	7.65
PURGE DATE	11.7.16
END OF PURGE TIME	0925
PURGE AMOUNT	2.5
DTW (FEET)	24.30

WEATHER CONDITIONS: CLOUDY, CALM, 56°

WATER APPEARANCE / ODOR: CLEAR, ODOR, CLOUDY, LT BROWN

COMMENTS:

SAMPLING DATA

SAMPLE DATE	11.8.16
DTW (FEET)	10.40
SAMPLE TIME	0710

WEATHER CONDITIONS: CLEAR CALM 42°

WATER APPEARANCE / ODOR: CLEAR, ODOR

COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-17	0710	40 ML VOA	5	HCL
		1 L AMBER	2	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

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WELL ID		TEST PARAMETERS								
MKTF-19		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.7.16	Initial	0946	6.64	16.5	1843	—	—	18.4	-44.8
GAUGE TIME	0942	1	0948	6.81	16.6	1891	—	—	12.6	-81.9
DHC (FEET)	ND	2	0950	6.90	16.4	1928	—	—	15.7	-87.9
DTW (FEET)	11.00	3	0952	6.88	16.3	1941	—	—	11.7	-86.9
DTB (FEET)	17.85	4	0954	6.90	16.1	1945	—	—	14.2	-88.7
DTB - DTW	6.85	5	0956	6.91	16.0	1942	—	—	13.0	-93.0
CAPACITY PER FOOT	0.74 - 4" / 0.163 - 2"	6	0958	6.91	16.0	1939	—	—	9.4	-93.8

1.11

PURGING DATA

3 WELL VOLUMES	3.33
PURGE DATE	11.7.16
END OF PURGE TIME	0958
PURGE AMOUNT	3.5
DTW (FEET)	13.75

WEATHER CONDITIONS: PARTLY CLOUDY, CALM, 53°

WATER APPEARANCE / ODOR: GREY, ODOR, PINKISH BROWN, SHEEN

COMMENTS:

SAMPLING DATA

SAMPLE DATE	11.8.16
DTW (FEET)	11.00
SAMPLE TIME	0745

WEATHER CONDITIONS: CLEAR, CALM, 42°

WATER APPEARANCE / ODOR: CLEAR → PINKISH BROWN, ODOR

COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-19	0745	40 ML VOA	5	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

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WELL ID		TEST PARAMETERS								
MKTF-34		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.7.16	Initial	1025	6.97	15.0	1953	—	—	62.4	70.4
GAUGE TIME	1019	1	1027	7.40	~~16.15.1~~	2017	—	—	60.6	59.9
DHC (FEET)	ND	2	1029	7.48	14.9	2023	—	—	65.9	56.7
DTW (FEET)	17.50	3	1031	7.51	14.7	2016	—	—	61.6	55.3
DTB (FEET)	27.70	4	1033	7.54	14.6	2009	—	—	54.5	55.0
DTB - DTW	10.50	5	1035	7.53	14.5	2004	—	—	34.7	54.9
CAPACITY PER FOOT	0.74 - 4"	6	1037	7.53	14.5	2000	—	—	31.9	51.3
	0.163 - 2"									

1.66

PURGING DATA

3 WELL VOLUMES	4.99	WEATHER CONDITIONS: CLEAR, CALM, 55°
PURGE DATE	11.7.16	WATER APPEARANCE / ODOR: CLEAR / NO ODOR
END OF PURGE TIME	1037	COMMENTS:
PURGE AMOUNT	5.0	
DTW (FEET)	25.21	

SAMPLING DATA

SAMPLE DATE	11.8.16	WEATHER CONDITIONS: CLEAR, SE WIND, 47°
DTW (FEET)	22.60	WATER APPEARANCE / ODOR:
SAMPLE TIME	0825	COMMENTS: COLLECTED DUP06 AT THIS WELL

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-34	0825	40 ML VOA	5	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

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WELL ID		TEST PARAMETERS								
MKTF-18		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.7.16	Initial	1101	6.89	18.0	1609	—	—	21.6	78.7
GAUGE TIME	1056	1	1104	7.03	17.0	1652	—	—	19.1	7.8
DHC (FEET)	ND	2	1107	7.16	17.1	1653	—	—	16.7	-20.1
DTW (FEET)	7.50	3			BAILED DRY @ 3 GALS					
DTB (FEET)	25.65	4								
DTB - DTW	18.15	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

2.95

PURGING DATA

3 WELL VOLUMES	8.88	WEATHER CONDITIONS: CLEAR, CALM, 70°
PURGE DATE	11.7.16	WATER APPEARANCE / ODOR: CLEAR TO PINKISH BROWN, ODOR
END OF PURGE TIME	1107	COMMENTS:
PURGE AMOUNT	3 GALS	
DTW (FEET)	17.89	

SAMPLING DATA

SAMPLE DATE	11.8.16	WEATHER CONDITIONS: CLEAR, SE WIND, 51°
DTW (FEET)	7.60	WATER APPEARANCE / ODOR: CLEAR, ODOR
SAMPLE TIME	0910	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-18	0910	40 ML VOA	5	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

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WELL ID		TEST PARAMETERS								
MKTF-36		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.7.16	Initial								
GAUGE TIME	1125	1		DID NOT COLLECT GW QUALITY						
DHC (FEET)	ND	2		READINGS DUE TO HEAVY						
DTW (FEET)	6.30	3		SHEEN ON GROUNDWATER						
DTB (FEET)	15.50	4								
DTB - DTW	9.20	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

1.50

PURGING DATA

3 WELL VOLUMES	4.50	WEATHER CONDITIONS: CLEAR, CALM, 70°
PURGE DATE	11.7.16	WATER APPEARANCE / ODOR: GREY -> BLACK, ODOR, SHEEN
END OF PURGE TIME	1138	COMMENTS:
PURGE AMOUNT	5 GALS	
DTW (FEET)	13.8	

SAMPLING DATA

SAMPLE DATE	11.8.16	WEATHER CONDITIONS: CLEAR, SE WIND, 55°
DTW (FEET)	6.35	WATER APPEARANCE / ODOR:
SAMPLE TIME	0945	COMMENTS: COLLECTED FB110816 @1010 + 3HCL

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
MKTF-36	0945	40 mL VOA	8 (5+3)	HCL
		1 L AMBER	1	NEAT
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	H_2SO_4
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
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WELL ID		TEST PARAMETERS								
OW-57		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.7.16	Initial	1545	6.77	14.6	1872	—	—	68.8	-21.3
GAUGE TIME	1540	1	1547	6.96	14.2	1874	—	—	14.9	-76.1
DHC (FEET)	ND	2	1549	7.01	14.0	1861	—	—	12.1	-84.5
DTW (FEET)	21.58	3		BAILED DRY @ 1.5 GALS						
DTB (FEET)	28.35	4								
DTB - DTW	6.77	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									
1.10		PURGING DATA								
3 WELL VOLUMES	3.30	WEATHER CONDITIONS: CLEAR, CALM, 70°								
PURGE DATE	11.7.16	WATER APPEARANCE / ODOR: CLEAR → PINKISH BROWN, ODOR								
END OF PURGE TIME	1550	COMMENTS:								
PURGE AMOUNT	1.5 GALS									
DTW (FEET)	28.00									
		SAMPLING DATA								
SAMPLE DATE	11.8.16	WEATHER CONDITIONS: CLEAR SE WIND 65°								
DTW (FEET)	21.59	WATER APPEARANCE / ODOR: CLEAR, ODOR								
SAMPLE TIME	1245	COMMENTS:								

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
OW-57	1245	40 ML VOA	5	HCL
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
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WELL ID		TEST PARAMETERS								
OW-58		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.7.16	Initial	1401	6.80	15.2	1850	—	—	22.3	-2.4
GAUGE TIME	1355	1	1405	6.93	14.4	1902	—	—	13.1	-65.4
DHC (FEET)	ND	2	1409	6.91	14.2	1906	—	—	11.5	-78.1
DTW (FEET)	26.00	3	1413	6.89	14.1	1879	—	—	12.6	-82.8
DTB (FEET)	47.80	4	1417	6.91	14.1	1876	—	—	15.2	-85.1
DTB - DTW	21.80	5	1421	6.91	14.1	1875	—	—	16.1	-85.9
CAPACITY PER FOOT	0.74 - 4" / 0.163 - 2"	6	1425	6.91	14.1	1874	—	—	17.6	-82.1

3.55

PURGING DATA

3 WELL VOLUMES	10.65	WEATHER CONDITIONS: CLEAR, CALM, 70°
PURGE DATE	11.7.16	WATER APPEARANCE / ODOR: CLEAR → PINKISH BROWN, ODOR
END OF PURGE TIME	1425	COMMENTS:
PURGE AMOUNT	11 GALS	
DTW (FEET)	26.95	

SAMPLING DATA

SAMPLE DATE	11.7.16	WEATHER CONDITIONS: SAME AS ABOVE
DTW (FEET)	26.10	WATER APPEARANCE / ODOR: PINKISH BROWN
SAMPLE TIME	1450	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
OW-58	1450	40 ML VOA	5	HCL
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
MKTF-45		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.7.16	Initial								
GAUGE TIME	1200	1		DID NOT SAMPLE						
DHC (FEET)	11.46	2		0.43' OF HC IN WELL						
DTW (FEET)	11.89	3								
DTB (FEET)	30.32	4								
DTB - DTW	—	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES		WEATHER CONDITIONS:
PURGE DATE		WATER APPEARANCE / ODOR:
END OF PURGE TIME		COMMENTS:
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA

SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED GEOTECH INTERFACE PROBE

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WESTERN REFINING - GALLUP REFINERY
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WELL ID		TEST PARAMETERS								
OW-53		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.8.16	Initial								
GAUGE TIME	1520	1								
DHC (FEET)	ND	2		DID NOT SAMPLE						
DTW (FEET)	ND	3		GROUNDWATER WAS NOT						
DTB (FEET)	33.90	4		DETECTED						
DTB - DTW	—	5								
CAPACITY PER FOOT	0.74 - 4"	6								
	0.163 - 2"									

PURGING DATA

3 WELL VOLUMES		WEATHER CONDITIONS:
PURGE DATE		WATER APPEARANCE / ODOR:
END OF PURGE TIME		COMMENTS:
PURGE AMOUNT		
DTW (FEET)		

SAMPLING DATA

SAMPLE DATE		WEATHER CONDITIONS:
DTW (FEET)		WATER APPEARANCE / ODOR:
SAMPLE TIME		COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE

INSTRUMENTS USED GEOTECH INTERFACE PROBE

COMPLETED BY: TRACY PAYNE SIGNATURE:

WESTERN REFINING - GALLUP REFINERY
FOURTH QUARTER 2016

WELL ID		TEST PARAMETERS								
OW-54		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.8.16	Initial	1452	7.10	13.7	2257	—	—	12.7	28.1
GAUGE TIME	1446	1	1454	7.10	12.9	2300	—	—	15.7	10.8
DHC (FEET)	ND	2	1456	7.12	12.7	2321	—	—	15.6	-6.9
DTW (FEET)	18.97	3	1459	7.17	12.4	2319	—	—	28.0	-19.7
DTB (FEET)	31.04	4	1501	7.18	12.5	2345	—	—	17.6	-27.9
DTB - DTW	12.07	5	1503	7.18	12.5	2365	—	—	23.8	-32.9
CAPACITY PER FOOT	0.74 - 4" / 0.163 - 2"	6	1505	7.18	12.5	2333	—	—	21.8	-35.9

1.97

PURGING DATA

3 WELL VOLUMES	5.91	WEATHER CONDITIONS: CLEAR, SE WIND 67°
PURGE DATE	11.8.16	WATER APPEARANCE / ODOR: CLEAR -> CLOUDY, PINKISH BROWN, ODOR
END OF PURGE TIME	1505	COMMENTS:
PURGE AMOUNT	6 GALS	
DTW (FEET)	19.10	

SAMPLING DATA

SAMPLE DATE	11.9.16	WEATHER CONDITIONS: CLEAR, SE WIND, ~~SE~~ 40°
DTW (FEET)	18.98	WATER APPEARANCE / ODOR: CLEAR -> PINKISH BROWN, ODOR
SAMPLE TIME	0935	COMMENTS: COLLECTED DUP01 AT THIS WELL COLLECTED FB110916 @ 0955

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
OW-54	0935	40 ML VOA	5	HCL
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED GEOTECH INTERFACE PROBE, YSI PRO PLUS

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WELL ID		TEST PARAMETERS								
OW-55		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.8.16	Initial	1413	6.74	15.2	2626	-	-	66.4	25.7
GAUGE TIME	1407	1	1415	6.94	14.5	2551	-	-	12.5	-40.5
DHC (FEET)	ND	2	1418	6.91	14.2	2597	-	-	10.5	-59.5
DTW (FEET)	18.98	3	1421	6.93	14.1	2634	-	-	13.2	-68.0
DTB (FEET)	30.70	4	1423	6.97	14.1	2650	-	-	12.8	-73.2
DTB - DTW	11.72	5	1426	6.96	14.1	2662	-	-	12.3	-81.2
CAPACITY PER FOOT	0.74 - 4"	6	1429	6.96	14.1	2658	-	-	12.0	-76.5
	0.163 - 2"									
1.91		PURGING DATA								
3 WELL VOLUMES	5.73	WEATHER CONDITIONS: CLEAR, SE WIND, 67°								
PURGE DATE	11.8.16	WATER APPEARANCE / ODOR: CLEAR, CLOUDY, PINKISH BROWN, ODOR								
END OF PURGE TIME	1429	COMMENTS:								
PURGE AMOUNT	6 GALS									
DTW (FEET)	19.25									
		SAMPLING DATA								
SAMPLE DATE	11.9.16	WEATHER CONDITIONS: CLEAR, SE WIND, 50°								
DTW (FEET)	19.00	WATER APPEARANCE / ODOR: CLEAR, ODOR → PINKISH BROWN								
SAMPLE TIME	1040	COMMENTS:								

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
OW-55	1040	40 ML VOA	5	HCL
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED GEOTECH INTERFACE PROBE, YSI PRO PLUS

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WELL ID		TEST PARAMETERS								
OW-56		Volumes	TIME	pH	Temperature Degrees C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mv)
GAUGE DATE	11.8.16	Initial	1342	7.27	15.0	2382	—	—	114.3	149.7
GAUGE TIME	1335	1	1344	7.29	14.6	2388	—	—	70.2	139.5
DHC (FEET)	ND	2	1346	7.24	14.3	2502	—	—	40.1	140.0
DTW (FEET)	13.64	3	1348	7.26	14.2	2557	—	—	41.0	134.4
DTB (FEET)	18.59	4	1350	7.29	14.0	2744	—	—	30.9	134.0
DTB - DTW	4.95	5	1352	7.27	14.0	2775	—	—	23.5	130.3
CAPACITY PER FOOT	0.74 - 4"	6		DRY @ 2.25 GALS						
	0.163 - 2"									

0.81

PURGING DATA

3 WELL VOLUMES	2.43	WEATHER CONDITIONS: CLEAR, SE WIND, 66°
PURGE DATE	11.8.16	WATER APPEARANCE / ODOR: CLEAR, NO ODOR
END OF PURGE TIME	1352	COMMENTS:
PURGE AMOUNT	2.25	
DTW (FEET)	18.410	

SAMPLING DATA

SAMPLE DATE	11.9.16	WEATHER CONDITIONS: CLEAR, SE WIND, 66°
DTW (FEET)	16.90	WATER APPEARANCE / ODOR: CLEAR, NO ODOR
SAMPLE TIME	1120	COMMENTS:

SAMPLE LOG

SAMPLE ID	TIME	CONTAINER TYPE	NUMBER OF CONTAINERS	PRESERVATIVE
OW-56	1120	40 ML VOA	5	HCL
		250 ML AMBER	1	NEAT
		500 ML PLASTIC	1	HNO_3
		125 ML PLASTIC	1	HNO_3
		500 ML PLASTIC	1	NEAT

INSTRUMENTS USED: GEOTECH INTERFACE PROBE, YSI PRO PLUS

COMPLETED BY: TRACY PAYNE SIGNATURE:

APPENDIX C

APPLICABLE STANDARDS

20.6.2.2101 GENERAL REQUIREMENTS:

A. Except as otherwise provided in Sections 20.6.2.2000 through 20.6.2.2201 NMAC, no person shall cause or allow effluent to discharge to a watercourse if the effluent as indicated by:

(1) any two consecutive daily composite samples;

(2) more than one daily composite sample in any thirty-day period (in which less than ten (10) daily composite samples are examined);

(3) more than ten percent (10%) of the daily composite samples in any thirty-day period (in which ten (10) or more daily composite samples are examined); or

(4) a grab sample collected during flow from an intermittent or infrequent discharge does not conform to the following:

(a)	Bio-chemical Oxygen Demand (BOD)—Less than 30 mg/l	
(b)	Chemical Oxygen Demand (COD)	Less than 125 mg/l
(c)	Settleable Solids	Less than 0.5 mg/l
(d)	Fecal Coliform Bacteria	Less than 500 organisms per 100 ml
(e)	pH	Between 6.6 and 8.6

B. Upon application, the secretary may eliminate the pH requirement for any effluent source that the secretary determines does not unreasonably degrade the water into which the effluent is discharged.

C. Subsection A of this Section does not apply to the weight of constituents in the water diverted.

D. Samples shall be examined in accordance with the most current edition of Standard Methods for the Examination of Water and Wastewater published by the American Public Health Association or the most current edition of Methods for Chemical Analysis of Water and Wastes published by the Environmental Protection Agency, where applicable.

[4-20-68, 3-14-71, 10-8-71, 8-13-76, 2-20-81, 12-1-95; 20.6.2.2101 NMAC - Rn, 20 NMAC 6.2.II.2101, 1-15-01]

20.6.2.2102 RIO GRANDE BASIN--COMMUNITY SEWERAGE SYSTEMS:

A. No person shall cause or allow effluent from a community sewerage system to discharge to a watercourse in the Rio Grande Basin between the headwaters of Elephant Butte Reservoir and Angostura Diversion Dam as described in Subsection E of this Section if the effluent, as indicated by:

(1) any two consecutive daily composite samples;

(2) more than one daily composite sample in any thirty-day period (in which less than ten (10) daily composite samples are examined);

(3) more than ten percent (10%) of the daily composite samples in any thirty-day period (in which ten (10) or more daily composite samples are examined); or

(4) a grab sample collected during flow from an intermittent or infrequent discharge does not conform to the following:

(a)	Bio-chemical Oxygen Demand (BOD)	Less than 30 mg/l
(b)	Chemical Oxygen Demand (COD)	Less than 80 mg/l
(c)	Settleable Solids	Less than 0.1 mg/l
(d)	Fecal Coliform Bacteria	Less than 500 organisms per 100 ml
(e)	pH	Between 6.6 and 8.6

B. Upon application, the secretary may eliminate the pH requirement for any effluent source that the secretary determines does not unreasonably degrade the water into which the effluent is discharged.

C. Subsection A of this Section does not apply to the weight of constituents in the water diverted.

D. Samples shall be examined in accordance with the most current edition of Standard Methods for the Analysis of Water and Wastewater published by the American Public Health Association or the most current edition of Methods for Chemical Analysis of Water and Wastes published by the Environmental Protection Agency, where applicable.

E. The following is a description of the Rio Grande Basin from the headwaters of Elephant Butte Reservoir to Angostura Diversion Dam as used in this Section. Begin at San Marcial USGS gauging station, which is the headwaters of Elephant Butte Reservoir Irrigation Project, thence northwest to U.S. Highway 60, nine miles + west of Magdalena; thence west along the northeast edge of the San Agustin Plains closed basin; thence north along the east side of the north plains closed basin to the Continental Divide; thence northly along the Continental Divide to the community of Regina on State Highway 96; thence southeasterly along the crest of the San Pedro Mountains to Cerro Toledo Peak; thence southwesterly along the Sierra de Los Valles ridge and the Borrego Mesa to Bodega Butte; thence southerly to Angostura Diversion Dam which is the upper reach of the Rio Grande in this basin; thence southeast to the crest and the crest of the Manzano Mountains and the Los Pinos Mountains; thence southerly along the divide that contributes to the Rio Grande to San Marcial gauging station to the point and place of beginning; excluding all waters upstream of Jemez Pueblo which flow into the Jemez River drainage and the Bluewater Lake. Counties included in the basin are:

(1) north portion of Socorro County;

(2) northeast corner of Catron County;

(3) east portion of Valencia County;

(4) west portion of Bernalillo County;

(5) east portion of McKinley County; and

(6) most of Sandoval County.

[3-14-71, 9-3-72, 8-13-76, 2-20-81, 12-1-95; 20.6.2.2102 NMAC - Rn, 20 NMAC 6.2.II.2102, 1-15-01]

20.6.2.2103 - 20.6.2.2199: [RESERVED]
[12-1-95; 20.6.2.2103 - 20.6.2.2199 NMAC - Rn, 20 NMAC 6.2.II.2103-2199, 1-15-01]

20.6.2.2200 WATERCOURSE PROTECTION:
[12-1-95; 20.6.2.2200 NMAC - Rn, 20 NMAC 6.2.II.2200, 1-15-01]

20.6.2.2201 DISPOSAL OF REFUSE: No person shall dispose of any refuse in a natural watercourse or in a location and manner where there is a reasonable probability that the refuse will be moved into a natural watercourse by leaching or otherwise. Solids diverted from the stream and returned thereto are not subject to abatement under this Section.
[4-20-68, 9-3-72; 20.6.2.2201 NMAC - Rn, 20 NMAC 6.2.II.2201, 1-15-01]

20.6.2.2202 - 20.6.2.2999: [RESERVED]
[12-1-95; 20.6.2.2202 - 20.6.2.2999 NMAC - Rn, 20 NMAC 6.2.II.2202-3100, 1-15-01]

20.6.2.3000 PERMITTING AND GROUND WATER STANDARDS:
[12-1-95; 20.6.2.3000 NMAC - Rn, 20 NMAC 6.2.III, 1-15-01]

20.6.2.3001 - 20.6.2.3100: [RESERVED]
[12-1-95; 20.6.2.3001 - 20.6.2.3100 NMAC - Rn, 20 NMAC 6.2.II.2202-3100, 1-15-01]

20.6.2.3101 PURPOSE:

A. The purpose of Sections 20.6.2.3000 through 20.6.2.3114 NMAC controlling discharges onto or below the surface of the ground is to protect all ground water of the state of New Mexico which has an existing concentration of 10,000 mg/l or less TDS, for present and potential future use as domestic and agricultural water supply, and to protect those segments of surface waters which are gaining because of ground water inflow, for uses designated in the New Mexico Water Quality Standards. Sections 20.6.2.3000 through 20.6.2.3114 NMAC are written so that in general:

(1) if the existing concentration of any water contaminant in ground water is in conformance with the standard of 20.6.2.3103 NMAC, degradation of the ground water up to the limit of the standard will be allowed; and

(2) if the existing concentration of any water contaminant in ground water exceeds the standard of Section 20.6.2.3103 NMAC, no degradation of the ground water beyond the existing concentration will be allowed.

B. Ground water standards are numbers that represent the pH range and maximum concentrations of water contaminants in the ground water which still allow for the present and future use of ground water resources.

C. The standards are not intended as maximum ranges and concentrations for use, and nothing herein contained shall be construed as limiting the use of waters containing higher ranges and concentrations.
[2-18-77; 20.6.2.3101 NMAC - Rn, 20 NMAC 6.2.III.3101, 1-15-01]

20.6.2.3102: [RESERVED]
[12-1-95; 20.6.2.3102 NMAC - Rn, 20 NMAC 6.2.III.3102, 1-15-01]

20.6.2.3103 STANDARDS FOR GROUND WATER OF 10,000 mg/l TDS CONCENTRATION OR LESS: The following standards are the allowable pH range and the maximum allowable concentration in ground water for the contaminants specified unless the existing condition exceeds the standard or unless otherwise provided in Subsection D of Section 20.6.2.3109 NMAC. Regardless of whether there is one contaminant or more than one contaminant present in ground water, when an existing pH or concentration of any water contaminant exceeds the standard specified in Subsection A, B, or C of this section, the existing pH or concentration shall be the allowable limit, provided that the discharge at such concentrations will not result in concentrations at any place of withdrawal for present or reasonably foreseeable future use in excess of the standards of this section. These standards shall apply to the dissolved portion of the contaminants specified with a definition of dissolved being that given in the publication "*methods for chemical analysis of water and waste of the U.S. environmental protection agency*," with the exception that standards for mercury, organic compounds and non-aqueous phase liquids shall apply to the total unfiltered concentrations of the contaminants.

A. Human Health Standards-Ground water shall meet the standards of Subsection A and B of this section unless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria as set forth in the definition of toxic pollutant in Section 20.6.2.1101 NMAC for the combination of contaminants, or the Human Health Standard of Subsection A of Section 20.6.2.3103 NMAC for each contaminant shall apply, whichever is more stringent. Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.

(1)	Arsenic (As)	0.1 mg/l
(2)	Barium (Ba)	1.0 mg/l
(3)	Cadmium (Cd)	0.01 mg/l
(4)	Chromium (Cr)	0.05 mg/l
(5)	Cyanide (CN)	0.2 mg/l
(6)	Fluoride (F)	1.6 mg/l
(7)	Lead (Pb)	0.05 mg/l
(8)	Total Mercury (Hg)	0.002 mg/l
(9)	Nitrate (NO_3 as N)	10.0 mg/l

(10) Selenium (Se).....0.05 mg/l
(11) Silver (Ag).....0.05 mg/l
(12) Uranium (U).....0.03 mg/l
(13) Radioactivity: Combined Radium-226 & Radium-228.....30 pCi/l
(14) Benzene.....0.01 mg/l
(15) Polychlorinated biphenyls (PCB's).....0.001 mg/l
(16) Toluene.....0.75 mg/l
(17) Carbon Tetrachloride.....0.01 mg/l
(18) 1,2-dichloroethane (EDC).....0.01 mg/l
(19) 1,1-dichloroethylene (1,1-DCE).....0.005 mg/l
(20) 1,1,2,2-tetrachloroethylene (PCE).....0.02 mg/l
(21) 1,1,2-trichloroethylene (TCE).....0.1 mg/l
(22) ethylbenzene.....0.75 mg/l
(23) total xylenes.....0.62 mg/l
(24) methylene chloride.....0.1 mg/l
(25) chloroform.....0.1 mg/l
(26) 1,1-dichloroethane.....0.025 mg/l
(27) ethylene dibromide (EDB).....0.0001 mg/l
(28) 1,1,1-trichloroethane.....0.06 mg/l
(29) 1,1,2-trichloroethane.....0.01 mg/l
(30) 1,1,2,2-tetrachloroethane.....0.01 mg/l
(31) vinyl chloride.....0.001 mg/l
(32) PAHs: total naphthalene plus monomethylnaphthalenes.....0.03 mg/l
(33) benzo-a-pyrene.....0.0007 mg/l

B. Other Standards for Domestic Water Supply

(1) Chloride (Cl).....250.0 mg/l
(2) Copper (Cu).....1.0 mg/l
(3) Iron (Fe).....1.0 mg/l
(4) Manganese (Mn).....0.2 mg/l
(6) Phenols.....0.005 mg/l
(7) Sulfate (SO_4).....600.0 mg/l
(8) Total Dissolved Solids (TDS).....1000.0 mg/l
(9) Zinc (Zn).....10.0 mg/l
(10) pH.....between 6 and 9

C. Standards for Irrigation Use - Ground water shall meet the standards of Subsection A, B, and C of this section unless otherwise provided.

(1) Aluminum (Al).....5.0 mg/l
(2) Boron (B).....0.75 mg/l
(3) Cobalt (Co).....0.05 mg/l
(4) Molybdenum (Mo).....1.0 mg/l
(5) Nickel (Ni).....0.2 mg/l

[2-18-77, 1-29-82, 11-17-83, 3-3-86, 12-1-95; 20.6.2.3103 NMAC - Rn, 20 NMAC 6.2.III.3103, 1-15-01; A, 9-26-04]
[Note: For purposes of application of the amended numeric uranium standard to past and current water discharges (as of 9-26-04), the new standard will not become effective until June 1, 2007. For any new water discharges, the uranium standard is effective 9-26-04.]

20.6.2.3104 DISCHARGE PERMIT REQUIRED: Unless otherwise provided by this Part, no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into ground water unless he is discharging pursuant to a discharge permit issued by the secretary. When a permit has been issued, discharges must be consistent with the terms and conditions of the permit. In the event of a transfer of the ownership, control, or possession of a facility for which a discharge permit is in effect, the transferee shall have authority to discharge under such permit, provided that the transferee has complied with Section 20.6.2.3111 NMAC, regarding transfers.
[2-18-77, 12-24-87, 12-1-95; Rn & A, 20.6.2.3104 NMAC - 20 NMAC 6.2.III.3104, 1-15-01; A, 12-1-01]

20.6.2.3105 EXEMPTIONS FROM DISCHARGE PERMIT REQUIREMENT: Sections 20.6.2.3104 and 20.6.2.3106 NMAC do not apply to the following:

A. Effluent or leachate which conforms to all the listed numerical standards of Section 20.6.2.3103 NMAC and has a total nitrogen concentration of 10 mg/l or less, and does not contain any toxic pollutant. To determine conformance, samples may be taken by the agency before the effluent or leachate is discharged so that it may move directly or indirectly into ground water; provided that if the discharge is by seepage through non-natural or altered natural materials, the agency may take samples of the solution before or after seepage. If for any reason the agency does not have access to obtain the appropriate samples, this exemption shall not apply;

B. Effluent which is regulated pursuant to 20.7.3 NMAC, "Liquid Waste Disposal and Treatment" regulations;

C. Water used for irrigated agriculture, for watering of lawns, trees, gardens or shrubs, or for irrigation for a period not to exceed five years for the revegetation of any disturbed land area, unless that water is received directly from any sewerage system;

US GOVERNMENT INFORMATION GPO

Subpart G—National Primary Drinking Water Regulations: Maximum Contaminant Levels and Maximum Residual Disinfectant Levels

§ 141.60 Effective dates.

(a) The effective dates for § 141.61 are as follows:

(1) The effective date for paragraphs (a)(1) through (a)(8) of § 141.61 is January 9, 1989.

(2) The effective date for paragraphs (a)(9) through (a)(18) and (c)(1) through (c)(18) of § 141.61 is July 30, 1992.

(3) The effective date for paragraphs (a)(19) through (a)(21), (c)(19) through (c)(25), and (c)(27) through (c)(33) of § 141.61 is January 17, 1994. The effective date of § 141.61(c)(26) is August 17, 1992.

(b) The effective dates for § 141.62 are as follows:

(1) The effective date of paragraph (b)(1) of § 141.62 is October 2, 1987.

(2) The effective date for paragraphs (b)(2) and (b)(4) through (b)(10) of § 141.62 is July 30, 1992.

(3) The effective date for paragraphs (b)(11) through (b)(15) of § 141.62 is January 17, 1994.

(4) The effective date for § 141.62(b)(16) is January 23, 2006.

[56 FR 3593, Jan. 30, 1991, as amended at 57 FR 31846, July 17, 1992; 59 FR 34324, July 1, 1994; 66FR 7063, Jan. 22, 2001]

§ 141.61 Maximum contaminant levels for organic contaminants.

(a) The following maximum contaminant levels for organic contaminants apply to community and non-transient, non-community water systems.

CAS No.	Contaminant	MCL (mg/l)
(1) 75–01–4	Vinyl chloride	0.002
(2) 71–43–2	Benzene	0.005
(3) 56–23–5	Carbon tetrachloride	0.005
(4) 107–06–2	1,2-Dichloroethane	0.005
(5) 79–01–6	Trichloroethylene	0.005
(6) 106–46–7	para-Dichlorobenzene	0.075
(7) 75–35–4	1,1-Dichloroethylene	0.007
(8) 71–55–6	1,1,1-Trichloroethane	0.2
(9) 156–59–2	cis-1,2-Dichloroethylene	0.07
(10) 78–87–5	1,2-Dichloropropane	0.005
(11) 100–41–4	Ethylbenzene	0.7
(12) 108–90–7	Monochlorobenzene	0.1
(13) 95–50–1	o-Dichlorobenzene	0.6
(14) 100–42–5	Styrene	0.1
(15) 127–18–4	Tetrachloroethylene	0.005
(16) 108–88–3	Toluene	1
(17) 156–60–5	trans-1,2-Dichloroethylene	0.1
(18) 1330–20–7	Xylenes (total)	10
(19) 75–09–2	Dichloromethane	0.005
(20) 120–82–1	1,2,4-Trichloro- benzene	.07
(21) 79–00–5	1,1,2-Trichloro- ethane	.005

(b) The Administrator, pursuant to section 1412 of the Act, hereby identifies as indicated in the Table below granular activated carbon (GAC), packed tower aeration (PTA), or oxidation (OX) as the best technology treatment technique, or other means available for achieving compliance with the maximum contaminant level for organic contaminants identified in paragraphs (a) and (c) of this section:

BAT FOR ORGANIC CONTAMINANTS LISTED IN § 141.61 (a) AND (c)

CAS No.	Contaminant	GAC	PTA	OX
15972–60–8	Alachlor	X		
116–06–3	Aldicarb	X		
1646–88–4	Aldicarb sulfone	X		
1646–87–3	Aldicarb sulfoxide	X		
1912–24–9	Atrazine	X		
71–43–2	Benzene	X	X	
50–32–8	Benzo[a]pyrene	X		

BAT FOR ORGANIC CONTAMINANTS LISTED IN § 141.61 (a) AND (c)—Continued

CAS No.	Contaminant	GAC	PTA	OX
1563–66–2	Carbofuran	X		
56–23–5	Carbon tetrachloride	X	X	
57–74–9	Chlordane	X		
75–99–0	Dalapon	X		
94–75–7	2,4-D	X		
103–23–1	Di (2-ethylhexyl) adipate	X	X	
117–81–7	Di (2-ethylhexyl) phthalate	X		
96–12–8	Dibromochloropropane (DBCP)	X	X	
95–50–1	o-Dichlorobenzene	X	X	
106–46–7	para-Dichlorobenzene	X	X	
107–06–2	1,2-Dichloroethane	X	X	
75–35–4	1,1-Dichloroethylene	X	X	
156–59–2	cis-1,2-Dichloroethylene	X	X	
156–60–5	trans-1,2-Dichloroethylene	X	X	
75–09–2	Dichloromethane		X	
78–87–5	1,2-Dichloropropane	X	X	
88–85–7	Dinoseb	X		
85–00–7	Diquat	X		
145–73–3	Endothall	X		
72–20–8	Endrin	X		
100–41–4	Ethylbenzene	X	X	
106–93–4	Ethylene Dibromide (EDB)	X	X	
1071–83–6	Gylphosate			X
76–44–8	Heptachlor	X		
1024–57–3	Heptachlor epoxide	X		
118–74–1	Hexachlorobenzene	X		
77–47–3	Hexachlorocyclopentadiene	X	X	
58–89–9	Lindane	X		
72–43–5	Methoxychlor	X		
108–90–7	Monochlorobenzene	X	X	
23135–22–0	Oxamyl (Vydate)	X		
87–86–5	Pentachlorophenol	X		
1918–02–1	Picloram	X		
1336–36–3	Polychlorinated biphenyls (PCB)	X		
122–34–9	Simazine	X		
100–42–5	Styrene	X	X	
1746–01–6	2,3,7,8-TCDD (Dioxin)	X		
127–18–4	Tetrachloroethylene	X	X	
108–88–3	Toluene	X	X	
8001–35–2	Toxaphene	X		
93–72–1	2,4,5-TP (Silvex)	X		
120–82–1	1,2,4-Trichlorobenzene	X	X	
71–55–6	1,1,1-Trichloroethane	X	X	
79–00–5	1,1,2-Trichloroethane	X	X	
79–01–6	Trichloroethylene	X	X	
75–01–4	Vinyl chloride		X	
1330–20–7	Xylene	X	X	

(c) The following maximum contaminant levels for synthetic organic contaminants apply to community water systems and non-transient, non-community water systems:

CAS No.	Contaminant	MCL (mg/l)
(1) 15972–60–8	Alachlor	0.002
(2) 116–06–3	Aldicarb	0.003
(3) 1646–87–3	Aldicarb sulfoxide	0.004
(4) 1646–87–4	Aldicarb sulfone	0.002
(5) 1912–24–9	Atrazine	0.003
(6) 1563–66–2	Carbofuran	0.04
(7) 57–74–9	Chlordane	0.002
(8) 96–12–8	Dibromochloropropane	0.0002
(9) 94–75–7	2,4-D	0.07
(10) 106–93–4	Ethylene dibromide	0.00005
(11) 76–44–8	Heptachlor	0.0004
(12) 1024–57–3	Heptachlor epoxide	0.0002
(13) 58–89–9	Lindane	0.0002
(14) 72–43–5	Methoxychlor	0.04
(15) 1336–36–3	Polychlorinated biphenyls	0.0005

CAS No.	Contaminant	MCL (mg/l)
(16) 87–86–5	Pentachlorophenol	0.001
(17) 8001–35–2	Toxaphene	0.003
(18) 93–72–1	2,4,5-TP	0.05
(19) 50–32–8	Benzo[a]pyrene	0.0002
(20) 75–99–0	Dalapon	0.2
(21) 103–23–1	Di(2-ethylhexyl) adipate	0.4
(22) 117–81–7	Di(2-ethylhexyl) phthalate	0.006
(23) 88–85–7	Dinoseb	0.007
(24) 85–00–7	Diquat	0.02
(25) 145–73–3	Endothall	0.1
(26) 72–20–8	Endrin	0.002
(27) 1071–53–6	Glyphosate	0.7
(28) 118–74–1	Hexacholorbenzene	0.001
(29) 77–47–4	Hexachlorocyclopentadiene	0.05
(30) 23135–22–0	Oxamyl (Vydate)	0.2
(31) 1918–02–1	Picloram	0.5
(32) 122–34–9	Simazine	0.004
(33) 1746–01–6	2,3,7,8-TCDD (Dioxin)	3×10^{-8}

[56 FR 3593, Jan. 30, 1991, as amended at 56 FR 30280, July 1, 1991; 57 FR 31846, July 17, 1992; 59 FR 34324, July 1, 1994]

§ 141.62 Maximum contaminant levels for inorganic contaminants.

(a) [Reserved]

(b) The maximum contaminant levels for inorganic contaminants specified in paragraphs (b) (2)–(6), (b)(10), and (b) (11)–(16) of this section apply to community water systems and non-transient, non-community water systems. The maximum contaminant level specified in paragraph (b)(1) of this section only applies to community water systems. The maximum contaminant levels specified in (b)(7), (b)(8), and (b)(9) of this section apply to community water systems; non-transient, non-community water systems; and transient non-community water systems.

Contaminant	MCL (mg/l)
(1) Fluoride	4.0
(2) Asbestos	7 Million Fibers/liter (longer than 10 μm).
(3) Barium	2
(4) Cadmium	0.005
(5) Chromium	0.1
(6) Mercury	0.002
(7) Nitrate	10 (as Nitrogen)
(8) Nitrite	1 (as Nitrogen)
(9) Total Nitrate and Nitrite	10 (as Nitrogen)
(10) Selenium	0.05
(11) Antimony	0.006
(12) Beryllium	0.004
(13) Cyanide (as free Cyanide).	0.2
(14) [Reserved].	
(15) Thallium	0.002
(16) Arsenic	0.010

(c) The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment technique, or other means available for achieving compliance with the maximum contaminant levels for inorganic contaminants identified in paragraph (b) of this section, except fluoride:

BAT FOR INORGANIC COMPOUNDS LISTED IN SECTION 141.62(b)

Chemical Name	BAT(s)
Antimony	2,7
Arsenic[4]	1, 2, 5, 6, 7, 9, 12[5]
Asbestos	2,3,8
Barium	5,6,7,9
Beryllium	1,2,5,6,7
Cadmium	2,5,6,7
Chromium	2,5,6[2],7
Cyanide	5,7,13
Mercury	2[1],4,6[1],7[1]
Nickel	5,6,7
Nitrate	5,7,9
Nitrite	5,7
Selenium	1,2[3],6,7,9
Thallium	1,5

[1] BAT only if influent Hg concentrations ≤10μg/1.
[2] BAT for Chromium III only.
[3] BAT for Selenium IV only.
[4] BATs for Arsenic V. Pre-oxidation may be required to convert Arsenic III to Arsenic V.
[5] To obtain high removals, iron to arsenic ratio must be at least 20:1.

Key to BATS in Table

1 = Activated Alumina
2 = Coagulation/Filtration (not BAT for systems < 500 service connections)
3 = Direct and Diatomite Filtration
4 = Granular Activated Carbon
5 = Ion Exchange
6 = Lime Softening (not BAT for systems <500 service connections)
7 = Reverse Osmosis

8 = Corrosion Control
9 = Electrodialysis
10 = Chlorine
11 = Ultraviolet
12 = Oxidation/Filtration
13 = Alkaline Chlorination (pH ≥8.5)

(d) The Administrator, pursuant to section 1412 of the Act, hereby identifies in the following table the affordable technology, treatment technique, or other means available to systems serving 10,000 persons or fewer for achieving compliance with the maximum contaminant level for arsenic:

SMALL SYSTEM COMPLIANCE TECHNOLOGIES (SSCTs) [1] FOR ARSENIC [2]

Small system compliance technology	Affordable for listed small system categories [3]
Activated Alumina (centralized).	All size categories.
Activated Alumina (Point-of-Use) [4].	All size categories.
Coagulation/Filtration [5]	501–3,300, 3,301–10,000.
Coagulation-assisted Microfiltration.	501–3,300, 3,301–10,000.
Electrodialysis reversal [6]	501–3,300, 3,301–10,000.
Enhanced coagulation/filtration.	All size categories
Enhanced lime softening (pH> 10.5).	All size categories.
Ion Exchange	All size categories.
Lime Softening [5]	501–3,300, 3,301–10,000.
Oxidation/Filtration [7]	All size categories.
Reverse Osmosis (centralized) [6].	501–3,300, 3,301–10,000.
Reverse Osmosis (Point-of-Use) [4].	All size categories.

[1] Section 1412(b)(4)(E)(ii) of SDWA specifies that SSCTs must be affordable and technically feasible for small systems.
[2] SSCTs for Arsenic V. Pre-oxidation may be required to convert Arsenic III to Arsenic V.
[3] The Act (ibid.) specifies three categories of small systems: (i) those serving 25 or more, but fewer than 501, (ii) those serving more than 500, but fewer than 3,301, and (iii) those serving more than 3,300, but fewer than 10,001.
[4] When POU or POE devices are used for compliance, programs to ensure proper long-term operation, maintenance, and monitoring must be provided by the water system to ensure adequate performance.
[5] Unlikely to be installed solely for arsenic removal. May require pH adjustment to optimal range if high removals are needed.
[6] Technologies reject a large volume of water—may not be appropriate for areas where water quantity may be an issue.
[7] To obtain high removals, iron to arsenic ratio must be at least 20:1.

[56 FR 3594, Jan. 30, 1991, as amended at 56 FR 30280, July 1, 1991; 57 FR 31847, July 17, 1992; 59 FR 34325, July 1, 1994; 60 FR 33932, June 29, 1995; 66 FR 7063, Jan. 22, 2001; 68 FR 14506, Mar. 25, 2003; 69 FR 38855, June 29, 2004]

§ 141.63 Maximum contaminant levels (MCLs) for microbiological contaminants.

(a) The MCL is based on the presence or absence of total coliforms in a sample, rather than coliform density.

(1) For a system which collects at least 40 samples per month, if no more than 5.0 percent of the samples collected during a month are total coliform-positive, the system is in compliance with the MCL for total coliforms.

(2) For a system which collects fewer than 40 samples/month, if no more than one sample collected during a month is total coliform-positive, the system is in compliance with the MCL for total coliforms.

(b) Any fecal coliform-positive repeat sample or *E. coli*-positive repeat sample, or any total coliform-positive repeat sample following a fecal coliform-positive or *E. coli*-positive routine sample constitutes a violation of the MCL for total coliforms. For purposes of the public notification requirements in subpart Q, this is a violation that may pose an acute risk to health.

(c) A public water system must determine compliance with the MCL for total coliforms in paragraphs (a) and (b) of this section for each month in which it is required to monitor for total coliforms.

(d) The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant level for total coliforms in paragraphs (a) and (b) of this section:

(1) Protection of wells from contamination by coliforms by appropriate placement and construction;

(2) Maintenance of a disinfectant residual throughout the distribution system;

(3) Proper maintenance of the distribution system including appropriate pipe replacement and repair procedures, main flushing programs, proper operation and maintenance of storage tanks and reservoirs, and continual maintenance of positive water pressure in all parts of the distribution system;

(4) Filtration and/or disinfection of surface water, as described in subpart H, or disinfection of ground water using strong oxidants such as chlorine, chlorine dioxide, or ozone; and

(5) For systems using ground water, compliance with the requirements of

an EPA-approved State Wellhead Protection Program developed and implemented under section 1428 of the SDWA.

[54 FR 27566, June 29, 1989; 55 FR 25064, June 19, 1990, as amended at 65 FR 26022, May 4, 2000]

§ 141.64 Maximum contaminant levels for disinfection byproducts.

(a) *Bromate and chlorite.* The maximum contaminant levels (MCLs) for bromate and chlorite are as follows:

Disinfection byproduct	MCL (mg/L)
Bromate	0.010
Chlorite	1.0

(1) *Compliance dates for CWSs and NTNCWSs.* Subpart H systems serving 10,000 or more persons must comply with this paragraph (a) beginning January 1, 2002. Subpart H systems serving fewer than 10,000 persons and systems using only ground water not under the direct influence of surface water must comply with this paragraph (a) beginning January 1, 2004.

(2) The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for bromate and chlorite identified in this paragraph (a):

Disinfection byproduct	Best available technology
Bromate	Control of ozone treatment process to reduce production of bromate
Chlorite	Control of treatment processes to reduce disinfectant demand and control of disinfection treatment processes to reduce disinfectant levels

(b) TTHM and HAA5. (1) Subpart L—RAA compliance. (i) Compliance dates. Subpart H systems serving 10,000 or more persons must comply with this paragraph (b)(1) beginning January 1, 2002. Subpart H systems serving fewer than 10,000 persons and systems using only ground water not under the direct influence of surface water must comply with this paragraph (b)(1) beginning January 1, 2004. All systems must comply with these MCLs until the date specified for subpart V compliance in §141.620(c).

Disinfection byproduct	MCL (mg/L)
Total trihalomethanes (TTHM)	0.080
Haloacetic acids (five) (HAA5)	0.060

(ii) The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for TTHM and HAA5 identified in this paragraph (b)(1):

Disinfection byproduct	Best available technology
Total trihalomethanes (TTHM) and Haloacetic acids (five) (HAA5).	Enhanced coagulation or enhanced softening or GAC10, with chlorine as the primary and residual disinfectant

(2) Subpart V—LRAA compliance. (i) Compliance dates. The subpart V MCLs for TTHM and HAA5 must be complied with as a locational running annual average at each monitoring location beginning the date specified for subpart V compliance in §141.620(c).

Disinfection byproduct	MCL (mg/L)
Total trihalomethanes (TTHM)	0.080
Haloacetic acids (five) (HAA5)	0.060

(ii) The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for TTHM and HAA5 identified in this paragraph (b)(2) for all systems that disinfect their source water:

Disinfection byproduct	Best available technology
Total trihalomethanes (TTHM) and Haloacetic acids (five) (HAA5).	Enhanced coagulation or enhanced softening, plus GAC10; or nanofiltration with a molecular weight cutoff ≤1000 Daltons; or GAC20

(iii) The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for TTHM and HAA5 identified in this paragraph (b)(2) for consecutive systems and applies only to the disinfected water that consecutive systems buy or otherwise receive:

Disinfection byproduct	Best available technology
Total trihalomethanes (TTHM) and Haloacetic acids (five) (HAA5).	Systems serving ≥10,000: Improved distribution system and storage tank management to reduce residence time, plus the use of chloramines for disinfectant residual maintenance Systems serving <10,000: Improved distribution system and storage tank management to reduce residence time

[71 FR 478, Jan. 4, 2006]

§ 141.65 Maximum residual disinfectant levels.

(a) Maximum residual disinfectant levels (MRDLs) are as follows:

Disinfectant residual	MRDL (mg/L)
Chlorine	4.0 (as Cl_2).
Chloramines	4.0 (as Cl_2).
Chlorine dioxide	0.8 (as ClO_2).

(b) *Compliance dates*—(1) *CWSs and NTNCWSs.* Subpart H systems serving 10,000 or more persons must comply with this section beginning January 1, 2002. Subpart H systems serving fewer than 10,000 persons and systems using only ground water not under the direct influence of surface water must comply with this subpart beginning January 1, 2004.

(2) Transient NCWSs. Subpart H systems serving 10,000 or more persons and using chlorine dioxide as a disinfectant or oxidant must comply with the chlorine dioxide MRDL beginning January 1, 2002. Subpart H systems serving fewer than 10,000 persons and using chlorine dioxide as a disinfectant or oxidant and systems using only ground water not under the direct influence of surface water and using chlorine dioxide as a disinfectant or oxidant must comply with the chlorine dioxide MRDL beginning January 1, 2004.

(c) The Administrator, pursuant to Section 1412 of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum residual disinfectant levels identified in paragraph (a) of this section: control of treatment processes to reduce disinfectant demand and control of disinfection treatment processes to reduce disinfectant levels.

[63 FR 69465, Dec. 16, 1998, as amended at 66 FR 3776, Jan. 16, 2001]

§ 141.66 Maximum contaminant levels for radionuclides.

(a) [Reserved]

(b) *MCL for combined radium-226 and -228.* The maximum contaminant level for combined radium-226 and radium-228 is 5 pCi/L. The combined radium-226 and radium-228 value is determined by the addition of the results of the analysis for radium-226 and the analysis for radium-228.

(c) *MCL for gross alpha particle activity (excluding radon and uranium).* The maximum contaminant level for gross alpha particle activity (including radium-226 but excluding radon and uranium) is 15 pCi/L.

(d) *MCL for beta particle and photon radioactivity.* (1) The average annual concentration of beta particle and photon radioactivity from man-made radionuclides in drinking water must not produce an annual dose equivalent to the total body or any internal organ greater than 4 millirem/year (mrem/year).

(2) Except for the radionuclides listed in table A, the concentration of man-made radionuclides causing 4 mrem total body or organ dose equivalents must be calculated on the basis of 2 liter per day drinking water intake using the 168 hour data list in "Maximum Permissible Body Burdens and Maximum Permissible Concentrations of Radionuclides in Air and in Water for Occupational Exposure," NBS (National Bureau of Standards) Handbook 69 as amended August 1963, U.S. Department of Commerce. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of this document are available from the National Technical Information Service, NTIS ADA 280 282, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. The toll-free number is 800–553–6847. Copies may be inspected at EPA's Drinking Water Docket, 401 M Street, SW., Washington, DC 20460; or at the National Archives and Records

Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.* If two or more radionuclides are present, the sum of their annual dose equivalent to the total body or to any organ shall not exceed 4 mrem/year.

TABLE A—AVERAGE ANNUAL CONCENTRATIONS ASSUMED TO PRODUCE: A TOTAL BODY OR ORGAN DOSE OF 4 MREM/YR

1. Radionuclide	Critical organ	pCi per liter
2. Tritium	Total body	20,000
3. Strontium-90	Bone Marrow	8

(e) *MCL for uranium.* The maximum contaminant level for uranium is 30 μg/L.

(f) *Compliance dates.* (1) Compliance dates for combined radium-226 and -228, gross alpha particle activity, gross beta particle and photon radioactivity, and uranium: Community water systems must comply with the MCLs listed in paragraphs (b), (c), (d), and (e) of this section beginning December 8, 2003 and compliance shall be determined in accordance with the requirements of §§ 141.25 and 141.26. Compliance with reporting requirements for the radionuclides under appendix A to subpart O and appendices A and B to subpart Q is required on December 8, 2003.

(2) [Reserved]

(g) *Best available technologies (BATs) for radionuclides.* The Administrator, pursuant to section 1412 of the Act, hereby identifies as indicated in the following table the best technology available for achieving compliance with the maximum contaminant levels for combined radium-226 and -228, uranium, gross alpha particle activity, and beta particle and photon radioactivity.

TABLE B—BAT FOR COMBINED RADIUM-226 AND RADIUM-228, URANIUM, GROSS ALPHA PARTICLE ACTIVITY, AND BETA PARTICLE AND PHOTON RADIOACTIVITY

Contaminant	BAT
1. Combined radium-226 and radium-228	Ion exchange, reverse osmosis, lime softening.
2. Uranium	Ion exchange, reverse osmosis, lime softening, coagulation/filtration.
3. Gross alpha particle activity (excluding Radon and Uranium)	Reverse osmosis.
4. Beta particle and photon radioactivity	Ion exchange, reverse osmosis.

(h) *Small systems compliance technologies list for radionuclides.*

TABLE C—LIST OF SMALL SYSTEMS COMPLIANCE TECHNOLOGIES FOR RADIONUCLIDES AND LIMITATIONS TO USE

Unit technologies	Limitations (see footnotes)	Operator skill level required [1]	Raw water quality range and considerations. [1]
1. Ion exchange (IE)	(a)	Intermediate	All ground waters.
2. Point of use (POU[2]) IE	(b)	Basic	All ground waters.
3. Reverse osmosis (RO)	(c)	Advanced	Surface waters usually require pre-filtration.
4. POU[2] RO	(b)	Basic	Surface waters usually require pre-filtration.
5. Lime softening	(d)	Advanced	All waters.
6. Green sand filtration	(e)	Basic.	
7. Co-precipitation with Barium sulfate	(f)	Intermediate to Advanced	Ground waters with suitable water quality.
8. Electrodialysis/electrodialysis reversal.		Basic to Intermediate	All ground waters.
9. Pre-formed hydrous Manganese oxide filtration.	(g)	Intermediate	All ground waters.
10. Activated alumina	(a), (h)	Advanced	All ground waters; competing anion concentrations may affect regeneration frequency.
11. Enhanced coagulation/filtration	(i)	Advanced	Can treat a wide range of water qualities.

[1] National Research Council (NRC). Safe Water from Every Tap: Improving Water Service to Small Communities. National Academy Press. Washington, D.C. 1997.

[2] A POU, or "point-of-use" technology is a treatment device installed at a single tap used for the purpose of reducing contaminants in drinking water at that one tap. POU devices are typically installed at the kitchen tap. See the April 21, 2000 NODA for more details.

Limitations Footnotes: Technologies for Radionuclides:

[a] The regeneration solution contains high concentrations of the contaminant ions. Disposal options should be carefully considered before choosing this technology.

[b] When POU devices are used for compliance, programs for long-term operation, maintenance, and monitoring must be provided by water utility to ensure proper performance.

[c] Reject water disposal options should be carefully considered before choosing this technology. See other RO limitations described in the SWTR Compliance Technologies Table.

[d] The combination of variable source water quality and the complexity of the water chemistry involved may make this technology too complex for small surface water systems.

[e] Removal efficiencies can vary depending on water quality.

[f] This technology may be very limited in application to small systems. Since the process requires static mixing, detention basins, and filtration, it is most applicable to systems with sufficiently high sulfate levels that already have a suitable filtration treatment train in place.

[g] This technology is most applicable to small systems that already have filtration in place.

[h] Handling of chemicals required during regeneration and pH adjustment may be too difficult for small systems without an adequately trained operator.

[i] Assumes modification to a coagulation/filtration process already in place.

TABLE D—COMPLIANCE TECHNOLOGIES BY SYSTEM SIZE CATEGORY FOR RADIONUCLIDE NPDWR'S

Contaminant	Compliance technologies [1] for system size categories (population served)		3,300–10,000
	25–500	501–3,300	
1. Combined radium-226 and radium-228	1, 2, 3, 4, 5, 6, 7, 8, 9	1, 2, 3, 4, 5, 6, 7, 8, 9	1, 2, 3, 4, 5, 6, 7. 8, 9.
2. Gross alpha particle activity	3, 4	3, 4	3, 4.
3. Beta particle activity and photon activity	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4.
4. Uranium	1, 2, 4, 10, 11	1, 2, 3, 4, 5, 10, 11	1, 2, 3, 4, 5, 10, 11.

NOTE: [1] Numbers correspond to those technologies found listed in the table C of 141.66(h).

[65 FR 76748, Dec. 7, 2000]

Subpart H—Filtration and Disinfection

SOURCE: 54 FR 27527, June 29, 1989, unless otherwise noted.

§ 141.70 General requirements.

(a) The requirements of this subpart H constitute national primary drinking water regulations. These regulations establish criteria under which filtration is required as a treatment technique for public water systems supplied by a surface water source and public water systems supplied by a ground water source under the direct influence of surface water. In addition, these regulations establish treatment technique requirements in lieu of maximum contaminant levels for the following contaminants: *Giardia lamblia,* viruses, heterotrophic plate count bacteria, *Legionella,* and turbidity. Each public water system with a surface water source or a ground water source under the direct influence of surface water must provide treatment of that source water that complies with these treatment technique requirements. The treatment technique requirements consist of installing and properly operating water treatment processes which reliably achieve:

(1) At least 99.9 percent (3-log) removal and/or inactivation of *Giardia lamblia* cysts between a point where the raw water is not subject to recontamination by surface water runoff and a point downstream before or at the first customer; and

(2) At least 99.99 percent (4-log) removal and/or inactivation of viruses between a point where the raw water is not subject to recontamination by surface water runoff and a point downstream before or at the first customer.

(b) A public water system using a surface water source or a ground water source under the direct influence of surface water is considered to be in compliance with the requirements of paragraph (a) of this section if:

(1) It meets the requirements for avoiding filtration in §141.71 and the disinfection requirements in §141.72(a); or

(2) It meets the filtration requirements in §141.73 and the disinfection requirements in §141.72(b).

(c) Each public water system using a surface water source or a ground water source under the direct influence of

Table A-1: NMED Soil Screening Levels

Chemical	Residential Soil (mg/kg)	End-point	Industrial/ Occupational Soil (mg/kg)	End-point	Construction Worker Soil (mg/kg)	End-point	Tap Water (ug/L)	End-point	Risk-based SSL for a DAF of 1 (mg/kg)	Risk-based SSL for a DAF of 20 (mg/kg)
Acenaphthene	3.48E+03	n	5.05E+04	n	1.51E+04	n	5.35E+02	n	4.12E+00	8.25E+01
Acetaldehyde	2.49E+02	n	1.17E+03	n	2.17E+02	n	1.88E+01	n	3.29E-03	6.58E-02
Acetone	6.63E+04	n	9.60E+05	nls	2.42E+05	nls	1.41E+04	n	2.49E+00	4.98E+01
Acrylonitrile	4.93E+00	c	2.46E+01	c	3.52E+01	n	5.23E-01	c	9.77E-05	1.95E-03
Acetophenone	7.82E+03	ns	1.30E+05	nls	3.54E+04	ns	1.92E+03	n	4.82E-01	9.64E+00
Acrolein	4.54E-01	n	2.16E+00	n	4.01E-01	n	4.15E-02	n	7.29E-06	1.46E-04
Aldrin	3.11E-01	c	1.50E+00	c	8.07E+00	n	4.54E-02	c	5.60E-03	1.12E-01
Aluminum	7.80E+04	n	1.29E+06	nl	4.14E+04	n	1.99E+04	n	2.99E+04	5.97E+05
Anthracene	1.74E+04	n	2.53E+05	nl	7.53E+04	n	1.72E+03	n	4.25E+01	8.51E+02
Antimony	3.13E+01	n	5.19E+02	n	1.42E+02	n	7.26E+00	n	3.28E-01	6.56E+00
Arsenic	4.25E+00	c	2.15E+01	c	5.74E+01	n	5.13E-01	c	1.50E-02	2.99E-01
Barium	1.56E+04	n	2.55E+05	nl	4.39E+03	n	3.28E+03	n	1.35E+02	2.70E+03
Benzene	1.78E+01	c	8.72E+01	c	1.42E+02	n	4.54E+00	c	1.90E-03	3.80E-02
Benzidine	5.18E-03	c	1.12E-01	c	8.12E-01	c	1.07E-03	c	2.09E-06	4.17E-05
Benzo(a)anthracene	1.53E+00	c	3.23E+01	c	2.40E+02	c	3.43E-01	c	9.11E-02	1.82E+00
Benzo(a)pyrene	1.53E-01	c	3.23E+00	c	2.40E+01	c	3.43E-02	c	3.02E-02	6.05E-01
Benzo(b)fluoranthene	1.53E+00	c	3.23E+01	c	2.40E+02	c	3.43E-01	c	3.09E-01	6.17E+00
Benzo(k)fluoranthene	1.53E+01	c	3.23E+02	c	2.31E+03	c	3.43E+00	c	3.02E+00	6.05E+01
Beryllium	1.56E+02	n	2.58E+03	n	1.48E+02	n	1.24E+01	n	9.79E+00	1.96E+02
a-BHC (a-Hexachlorocyclohexane, a-HCH)	8.45E-01	c	4.07E+00	c	2.97E+01	c	6.80E-02	c	2.98E-04	5.96E-03
b-BHC (b-Hexachlorocyclohexane, b-HCH)	2.96E+00	c	1.43E+01	c	1.04E+02	c	2.38E-01	c	1.04E-03	2.09E-02
g-BHC (Lindane)	5.63E+00	c	2.83E+01	c	9.43E+01	n	4.08E-01	c	1.79E-03	3.58E-02
1,1-Biphenyl	6.32E+01	n	2.98E+02	n	5.46E+01	n	8.34E-01	n	6.56E-03	1.31E-01
Bis(2-chloroethyl) ether	3.11E+00	c	1.57E+01	c	1.95E+00	c	1.36E-01	c	3.03E-05	6.05E-04
Bis(2-chloroisopropyl) ether	9.93E+01	c	5.19E+02	cs	3.54E+03	cs	9.76E+00	c	2.37E-03	4.73E-02
Bis(2-ethylhexyl) phthalate	3.80E+02	c	1.83E+03	c	5.38E+03	n	5.56E+01	c	9.99E+00	2.00E+02
Bis(chloromethyl) ether	2.08E-03	c	1.02E-02	c	4.81E-02	c	7.20E-04	c	1.50E-07	3.00E-06
Boron	1.56E+04	n	2.59E+05	nl	5.14E+04	n	3.95E+03	n	1.25E+01	2.51E+02
Bromodichloromethane	6.19E+00	c	3.02E+01	c	1.43E+02	c	1.34E+00	c	3.10E-04	6.21E-03
Bromomethane	1.77E+01	n	9.45E+01	n	1.79E+01	n	7.54E+00	n	1.71E-03	3.43E-02
1,3-Butadiene	6.86E-01	c	3.41E+00	c	2.02E+00	n	1.80E-01	c	1.04E-04	2.07E-03

Chemical	Residential Soil (mg/kg)	End-point	Industrial/ Occupational Soil (mg/kg)	End-point	Construction Worker Soil (mg/kg)	End-point	Tap Water (ug/L)	End-point	Risk-based SSL for a DAF of 1 (mg/kg)	Risk-based SSL for a DAF of 20 (mg/kg)
2-Butanone (Methyl ethyl ketone, MEK)	3.74E+04	n	4.11E+05	nls	9.17E+04	ns	5.56E+03	n	1.00E+00	2.01E+01
tert-Butyl methyl ether (MTBE)	9.75E+02	c	4.82E+03	c	2.42E+04	cs	1.43E+02	c	2.77E-02	5.53E-01
Cadmium	7.05E+01	n	1.11E+03	n	7.21E+01	n	6.24E+00	n	4.69E-01	9.39E+00
Carbon disulfide	1.55E+03	ns	8.54E+03	ns	1.62E+03	ns	8.10E+02	n	2.21E-01	4.42E+00
Carbon tetrachloride	1.07E+01	c	5.25E+01	c	2.02E+02	n	4.53E+00	c	1.66E-03	3.33E-02
Chlordane	1.77E+01	c	8.90E+01	c	1.53E+02	n	2.23E+00	c	1.13E-01	2.26E+00
2-Chloroacetophenone	1.72E+05	nl	8.12E+05	nl	2.81E+02	n				
2-Chloro-1,3-butadiene	1.75E-01	c	8.48E-01	c	3.95E+00	c	1.87E-01	c	9.83E-05	1.97E-03
1-Chloro-1,1-difluoroethane	1.09E+05	nls	5.15E+05	nls	9.58E+04	ns	1.04E+05	n	5.34E+01	1.07E+03
Chlorobenzene	3.78E+02	ns	2.16E+03	ns	4.12E+02	ns	7.76E+01	n	4.18E-02	8.36E-01
1-Chlorobutane	3.13E+03	ns	5.19E+04	ns	1.42E+04	ns	6.31E+02	n	2.27E-01	4.53E+00
Chlorodifluoromethane	1.02E+05	nls	4.83E+05	nls	8.98E+04	ns	1.04E+05	n	4.27E+01	8.55E+02
Chloroform	5.90E+00	c	2.87E+01	c	1.34E+02	c	2.29E+00	c	5.46E-04	1.09E-02
Chloromethane	4.11E+01	c	2.01E+02	c	2.35E+02	n	2.03E+01	c	4.76E-03	9.51E-02
b-Chloronaphthalene	6.26E+03	n	1.04E+05	nl	2.83E+04	ns	7.33E+02	n	2.85E+00	5.70E+01
o-Chloronitrobenzene	1.78E+01	c	8.55E+01	c	8.39E+01	n	2.35E+00	c	1.71E-03	3.42E-02
p-Chloronitrobenzene	6.16E+01	n	9.16E+02	n	2.57E+02	n	1.79E+01	n	1.28E-02	2.57E-01
2-Chlorophenol	3.91E+02	n	6.49E+03	n	1.77E+03	n	9.10E+01	n	5.76E-02	1.15E+00
2-Chloropropane	2.86E+02	n	1.35E+03	ns	2.51E+02	ns	2.09E+02	n	6.31E-02	1.26E+00
o-Chlorotoluene	1.56E+03	ns	2.60E+04	ns	7.08E+03	ns	2.33E+02	n	1.78E-01	3.56E+00
Chromium III	1.17E+05	nl	1.95E+06	nl	5.31E+05	nl	1.36E+04	n	2.46E+07	4.91E+08
Chromium VI	3.05E+00	c	7.21E+01	c	6.69E+01	c	2.52E-01	c	4.84E-03	9.68E-02
Chromium (Total)	9.66E+01	c	5.05E+02	c	1.34E+02	n	5.59E+00	c	1.01E+04	2.01E+05
Chrysene	1.53E+02	c	3.23E+03	c	2.31E+04	c	3.43E+01	c	9.30E+00	1.86E+02
Copper	3.13E+03	n	5.19E+04	n	1.42E+04	n	7.90E+02	n	2.78E+01	5.56E+02
Crotonaldehyde	3.66E+00	c	1.91E+01	c	1.30E+02	c	4.04E-01	c	7.11E-05	1.42E-03
Cumene (isopropylbenzene)	2.36E+03	ns	1.42E+04	ns	2.74E+03	ns	4.47E+02	n	5.69E-01	1.14E+01
Cyanide	1.12E+01	n	6.33E+01	n	1.21E+01	n	1.46E+00	n	2.61E-04	5.22E-03
Cyanogen	7.82E+01	n	1.30E+03	n	3.54E+02	n	1.99E+01	n	4.01E-03	8.01E-02
Cyanogen bromide	7.04E+03	n	1.17E+05	nl	3.19E+04	n	1.80E+03	n	5.29E-01	1.06E+01
Cyanogen chloride	3.91E+03	n	6.49E+04	n	1.77E+04	n	9.99E+02	n	2.94E-01	5.88E+00
DDD	2.22E+01	c	1.07E+02	c	7.78E+02	c	3.06E-01	c	5.39E-02	1.08E+00
DDE	1.57E+01	c	7.55E+01	c	5.49E+02	c	2.29E+00	c	4.04E-01	8.08E+00

Chemical	Residential Soil (mg/kg)	End-point	Industrial/ Occupational Soil (mg/kg)	End-point	Construction Worker Soil (mg/kg)	End-point	Tap Water (ug/L)	End-point	Risk-based SSL for a DAF of 1 (mg/kg)	Risk-based SSL for a DAF of 20 (mg/kg)
DDT	1.87E+01	c	9.50E+01	c	1.62E+02	n	2.29E+00	c	5.80E-01	1.16E+01
Dibenz(a,h)anthracene	1.53E-01	c	3.23E+00	c	2.40E+01	c	1.06E-01	c	3.05E-01	6.11E+00
1,2-Dibromo-3-chloropropane	8.58E-02	c	1.18E+00	c	5.53E+00	c	3.36E-03	c	1.17E-06	2.34E-05
Dibromochloromethane	1.39E+01	c	6.74E+01	c	3.40E+02	c	1.68E+00	c	3.77E-04	7.54E-03
1,2-Dibromoethane	6.72E-01	c	3.31E+00	c	1.63E+01	c	7.46E-02	c	1.76E-05	3.52E-04
1,4-Dichloro-2-butene	1.15E-01	c	5.58E-01	c	2.59E+00	c	1.34E-02	c	5.00E-06	9.99E-05
1,2-Dichlorobenzene	2.15E+03	ns	1.30E+04	ns	2.50E+03	ns	3.02E+02	n	2.29E-01	4.58E+00
1,4-Dichlorobenzene	3.28E+01	c	1.59E+02	c	7.46E+02	c	4.81E+00	c	3.60E-03	7.20E-02
3,3-Dichlorobenzidine	1.18E+01	c	5.70E+01	c	4.10E+02	c	1.24E+00	c	6.14E-03	1.23E-01
Dichlorodifluoromethane	1.82E+02	n	8.65E+02	ns	1.61E+02	n	1.97E+02	n	3.61E-01	7.23E+00
1,1-Dichloroethane	7.86E+01	c	3.83E+02	c	1.82E+03	cs	2.75E+01	c	6.79E-03	1.36E-01
1,2-Dichloroethane	8.32E+00	c	4.07E+01	c	5.38E+01	n	1.71E+00	c	4.07E-04	8.14E-03
cis-1,2-Dichloroethene	1.56E+02	n	2.60E+03	ns	7.08E+02	n	3.65E+01	n	9.18E-03	1.84E-01
trans-1,2-Dichloroethene	2.95E+02	n	1.61E+03	ns	3.05E+02	n	9.32E+01	n	2.35E-02	4.69E-01
1,1-Dichloroethene	4.40E+02	n	2.26E+03	ns	4.24E+02	n	2.84E+02	n	9.74E-02	1.95E+00
2,4-Dichlorophenol	1.85E+02	n	2.75E+03	n	8.07E+02	n	4.53E+01	n	4.13E-02	8.25E-01
1,2-Dichloropropane	1.78E+01	c	8.68E+01	c	2.54E+01	n	4.37E+00	c	1.21E-03	2.43E-02
1,3-Dichloropropene	2.93E+01	c	1.46E+02	c	1.30E+02	n	4.70E+00	c	1.40E-03	2.80E-02
Dicyclopentadiene	1.73E+00	n	8.14E+00	n	1.51E+00	n	6.25E-01	n	1.71E-03	3.42E-02
Dieldrin	3.33E-01	c	1.60E+00	c	1.17E+01	c	1.71E-02	c	5.18E-04	1.04E-02
Diethyl phthalate	4.93E+04	n	7.33E+05	nl	2.15E+05	nl	1.48E+04	n	4.89E+00	9.79E+01
Di-n-butyl phthalate (Dibutyl phthalate)	6.16E+03	n	9.16E+04	n	2.69E+04	n	8.85E+02	n	1.69E+00	3.38E+01
2,4-Dimethylphenol	1.23E+03	n	1.83E+04	n	5.38E+03	n	3.54E+02	n	3.22E-01	6.45E+00
4,6-Dinitro-o-cresol	4.93E+00	n	7.33E+01	n	2.15E+01	n	1.51E+00	n	1.97E-03	3.94E-02
2,4-Dinitrophenol	1.23E+02	n	1.83E+03	n	5.38E+02	n	3.88E+01	n	3.35E-02	6.71E-01
2,4-Dinitrotoluene	1.71E+01	c	8.23E+01	c	5.36E+02	n	2.37E+00	c	2.46E-03	4.91E-02
2,6-Dintitrotoluene	3.56E+00	c	1.72E+01	c	8.09E+01	n	4.84E-01	c	5.10E-04	1.02E-02
2,4/2,6-Dintrotoluene Mixture	7.83E+00	c	3.77E+01	c	2.77E+02	c	1.06E+00	c	1.12E-03	2.23E-02
1,4-Dioxane	5.33E+01	c	2.57E+02	c	1.88E+03	c	7.76E+00	c	1.38E-03	2.75E-02
1,2-Diphenylhydrazine	6.66E+00	c	3.21E+01	c	2.34E+02	c	7.73E-01	c	1.88E-03	3.76E-02
Endosulfan	3.70E+02	n	5.50E+03	n	1.61E+03	n	9.87E+01	n	1.02E+00	2.04E+01
Endrin	1.85E+01	n	2.75E+02	n	8.07E+01	n	2.23E+00	n	6.77E-02	1.35E+00
Epichlorohydrin	4.27E+01	n	2.15E+02	n	4.02E+01	n	2.05E+00	n	3.86E-04	7.72E-03

Chemical	Residential Soil (mg/kg)	End-point	Industrial/ Occupational Soil (mg/kg)	End-point	Construction Worker Soil (mg/kg)	End-point	Tap Water (ug/L)	End-point	Risk-based SSL for a DAF of 1 (mg/kg)	Risk-based SSL for a DAF of 20 (mg/kg)
Ethyl acetate	1.82E+03	n	8.75E+03	n	1.63E+03	n	1.45E+02	n	2.64E-02	5.28E-01
Ethyl acrylate	1.45E+02	c	7.57E+02	c	5.16E+03	cs	1.56E+01	c	2.99E-03	5.97E-02
Ethyl chloride	1.90E+04	ns	8.95E+04	ns	1.66E+04	ns	2.09E+04	n	5.37E+00	1.07E+02
Ethyl ether	1.56E+04	ns	2.60E+05	nls	7.08E+04	ns	3.93E+03	n	7.60E-01	1.52E+01
Ethyl methacrylate	2.73E+03	ns	1.78E+04	ns	3.48E+03	ns	4.55E+02	n	9.15E-02	1.83E+00
Ethylbenzene	7.51E+01	c	3.68E+02	cs	1.77E+03	cs	1.49E+01	c	1.31E-02	2.62E-01
Ethylene oxide	5.02E+00	c	2.48E+01	c	1.23E+02	c	5.08E-01	c	9.09E-05	1.82E-03
Fluoranthene	2.32E+03	n	3.37E+04	n	1.00E+04	n	8.02E+02	n	6.69E+01	1.34E+03
Fluorene	2.32E+03	n	3.37E+04	n	1.00E+04	n	2.88E+02	n	4.00E+00	8.00E+01
Fluoride	4.69E+03	n	7.78E+04	n	1.81E+04	n	1.18E+03	n	1.78E+02	3.56E+03
Furan	7.24E+01	n	1.15E+03	n	3.54E+02	n	1.92E+01	n	6.12E-03	1.22E-01
Heptachlor	1.18E+00	c	5.70E+00	c	4.15E+01	c	4.39E-02	c	2.73E-03	5.45E-02
Hexachlorobenzene	3.33E+00	c	1.60E+01	c	1.17E+02	c	4.87E-01	c	4.61E-03	9.22E-02
Hexachloro-1,3-butadiene	6.16E+01	n	3.29E+02	c	2.69E+02	n	2.95E+00	c	4.39E-03	8.79E-02
Hexachlorocyclopentadiene	3.70E+02	n	5.49E+03	n	8.67E+02	n	2.78E+01	n	6.68E-02	1.34E+00
Hexachloroethane	4.31E+01	n	6.41E+02	c	1.88E+02	n	6.80E+00	n	3.31E-03	6.62E-02
n-Hexane	6.15E+02	ns	3.20E+03	ns	6.03E+02	ns	3.19E+02	n	2.78E+00	5.57E+01
HMX	3.85E+03	n	6.33E+04	n	1.74E+04	n	1.00E+03	n	9.72E-01	1.94E+01
Hydrazine anhydride	1.78E+00	c	8.55E+00	c	5.99E+01	c	2.60E-01	c	4.50E-05	9.00E-04
Hydrogen cyanide	1.02E+01	n	5.72E+01	n	1.09E+01	n	1.46E+00	n	2.61E-04	5.22E-03
Indeno(1,2,3-c,d)pyrene	1.53E+00	c	3.23E+01	c	2.40E+02	c	3.43E-01	c	1.00E+00	2.01E+01
Iron	5.48E+04	n	9.08E+05	nl	2.48E+05	nl	1.38E+04	n	3.48E+02	6.96E+03
Isobutanol (Isobutyl alcohol)	1.85E+04	n	2.75E+05	nl	8.07E+04	n	5.91E+03	n	1.05E+00	2.10E+01
Isophorone	5.61E+03	c	2.70E+04	c	5.37E+04	n	7.79E+02	c	2.11E-01	4.22E+00
Lead	4.00E+02	IEUBK	8.00E+02	IEUBK	8.00E+02	IEUBK				
Lead (tetraethyl-)	6.16E-03	n	9.16E-02	n	3.54E-02	n	1.24E-03	n	4.70E-06	9.41E-05
Maleic hydrazide	3.08E+04	n	4.58E+05	nl	1.35E+05	nl	1.00E+04	n	1.79E+00	3.57E+01
Manganese	1.05E+04	n	1.60E+05	nl	4.64E+02	n	2.02E+03	n	1.31E+02	2.63E+03
Mercury (elemental)	2.38E+01	ns	1.12E+02	ns	2.07E+01	ns	6.26E-01	n	3.27E-02	6.54E-01
Mercury (methyl)	7.82E+00	n	1.30E+02	n	3.54E+01	n	1.96E+00	n	4.45E-04	8.89E-03
Mercury (salts)	2.35E+01	n	3.89E+02	ns	7.71E+01	n	4.92E+00	n	2.56E-01	5.13E+00
Methacrylonitrile	7.70E+00	n	1.23E+02	n	3.28E+01	n	1.91E+00	n	3.71E-04	7.43E-03
Methomyl	1.54E+03	n	2.29E+04	n	6.73E+03	n	4.98E+02	n	9.37E-02	1.87E+00

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Methyl acetate	7.82E+04	ns	1.30E+06	nls	3.54E+05	nls	1.99E+04	n	3.55E+00	7.11E+01
Methyl acrylate	3.50E+02	n	1.85E+03	n	3.48E+02	n	3.90E+01	n	7.13E-03	1.43E-01
Methyl isobutyl ketone	5.81E+03	ns	8.16E+04	ns	2.02E+04	ns	1.24E+03	n	2.40E-01	4.80E+00
Methyl methacrylate	1.11E+04	ns	5.65E+04	ns	1.06E+04	ns	1.39E+03	n	2.61E-01	5.22E+00
Methyl styrene (alpha)	5.48E+03	ns	9.08E+04	ns	2.48E+04	ns	7.65E+02	n	9.43E-01	1.89E+01
Methyl styrene (mixture)	2.73E+02	ns	2.20E+03	ns	4.49E+02	ns	3.73E+01	n	4.70E-02	9.40E-01
Methylcyclohexane	5.50E+03	ns	2.59E+04	ns	4.82E+03	ns	6.26E+03	n	1.58E+01	3.16E+02
Methylene bromide (Dibromomethane)	5.79E+01	n	2.88E+02	n	5.39E+01	n	8.00E+00	n	1.68E-03	3.35E-02
Methylene chloride	4.09E+02	n	5.13E+03	ns	1.21E+03	n	1.06E+02	n	2.35E-02	4.71E-01
Molybdenum	3.91E+02	n	6.49E+03	n	1.77E+03	n	9.87E+01	n	1.99E+00	3.98E+01
Naphthalene	4.97E+01	c	2.41E+02	c	1.59E+02	n	1.65E+00	c	4.11E-03	8.23E-02
Nickel	1.56E+03	n	2.57E+04	n	7.53E+02	n	3.72E+02	n	2.42E+01	4.85E+02
Nitrate	1.25E+05	nl	2.08E+06	nl	5.66E+05	nl	3.16E+04	n	2.13E+01	4.25E+02
Nitrite	7.82E+03	n	1.30E+05	nl	3.54E+04	n	1.97E+03	n	1.33E+00	2.66E+01
Nitrobenzene	6.04E+01	c	2.93E+02	c	3.53E+02	n	1.40E+00	c	7.20E-04	1.44E-02
Nitroglycerin	6.16E+00	n	9.16E+01	n	2.69E+01	n	1.96E+00	n	6.80E-04	1.36E-02
N-Nitrosodiethylamine	7.94E-03	c	1.71E-01	c	1.25E+00	c	1.65E-03	c	4.92E-07	9.84E-06
N-Nitrosodimethylamine	2.34E-02	c	5.03E-01	c	2.14E+00	n	4.90E-03	c	1.02E-06	2.03E-05
N-Nitrosodi-n-butylamine	7.81E-01	c	3.77E+00	c	2.46E+01	c	2.72E-02	c	4.21E-05	8.41E-04
N-Nitrosodiphenylamine	1.09E+03	c	5.24E+03	c	3.79E+04	c	1.21E+02	c	4.98E-01	9.95E+00
N-Nitrosopyrrolidine	2.54E+00	c	1.22E+01	c	8.89E+01	c	3.70E-01	c	1.15E-04	2.30E-03
m-Nitrotoluene	6.16E+00	n	9.16E+01	n	2.69E+01	n	1.74E+00	n	1.25E-03	2.50E-02
o-Nitrotoluene	3.16E+01	c	1.65E+02	c	3.19E+02	n	3.13E+00	c	2.28E-03	4.56E-02
p-Nitrotoluene	2.47E+02	n	1.60E+03	c	1.08E+03	n	4.24E+01	c	3.05E-02	6.09E-01
Pentachlorobenzene	4.93E+01	n	7.33E+02	n	2.15E+02	n	3.07E+00	n	1.76E-02	3.52E-01
Pentachlorophenol	9.85E+00	c	4.45E+01	c	3.46E+02	c	4.00E-01	c	3.04E-03	6.08E-02
Perchlorate	5.48E+01	n	9.08E+02	ns	2.48E+02	n	1.38E+01	n	5.85E-03	1.17E-01
Phenanthrene	1.74E+03	n	2.53E+04	n	7.53E+03	n	1.70E+02	n	4.30E+00	8.59E+01
Phenol	1.85E+04	n	2.75E+05	nl	7.74E+04	n	5.76E+03	n	2.62E+00	5.23E+01
Polychlorinatedbiphenyls (PCBs)										
Aroclor 1016	3.98E+00	n	5.74E+01	n	1.72E+01	n	1.40E+00	n	1.01E-01	2.01E+00
Aroclor 1221	1.81E+00	c	8.57E+00	c	5.53E+01	cs	5.54E-02	c	7.08E-04	1.42E-02
Aroclor 1232	1.86E+00	c	8.82E+00	c	5.76E+01	cs	5.54E-02	c	7.08E-04	1.42E-02

Chemical	Residential Soil (mg/kg)	End-point	Industrial/ Occupational Soil (mg/kg)	End-point	Construction Worker Soil (mg/kg)	End-point	Tap Water (ug/L)	End-point	Risk-based SSL for a DAF of 1 (mg/kg)	Risk-based SSL for a DAF of 20 (mg/kg)
Aroclor 1242	2.43E+00	c	1.15E+01	c	8.53E+01	c	3.89E-01	c	4.57E-02	9.14E-01
Aroclor 1248	2.43E+00	c	1.15E+01	c	8.53E+01	c	3.89E-01	c	4.48E-02	8.96E-01
Aroclor 1254	1.14E+00	n	1.15E+01	c	4.91E+00	n	3.89E-01	c	7.63E-02	1.53E+00
Aroclor 1260	2.43E+00	c	1.15E+01	c	8.53E+01	c	3.89E-01	c	2.04E-01	4.09E+00
2,2',3,3',4,4',5-Heptachlorobiphenyl (PCB 170)	3.75E-01	c	1.77E+00	c	1.72E+00	n	5.99E-02	c	3.21E-02	6.42E-01
2,2',3,4,4',5,5'-Heptachlorobiphenyl (PCB 180)	3.75E+00	c	1.77E+01	c	1.72E+01	n	5.99E-01	c	3.14E-01	6.29E+00
2,3,3',4,4',5,5'-Heptachlorobiphenyl (PCB 189)	1.25E+00	c	5.89E+00	c	5.73E+00	n	2.00E-01	c	1.05E-01	2.10E+00
2,3',4,4',5,5'-Hexachlorobiphenyl (PCB 167)	1.25E+00	c	5.89E+00	c	5.73E+00	n	2.00E-01	c	6.27E-02	1.25E+00
2,3,3',4,4',5'-Hexachlorobiphenyl (PCB 157)	1.25E+00	c	5.89E+00	c	5.73E+00	n	2.00E-01	c	6.40E-02	1.28E+00
2,3,3',4,4',5-Hexachlorobiphenyl (PCB 156)	1.25E+00	c	5.89E+00	c	5.73E+00	n	2.00E-01	c	6.40E-02	1.28E+00
3,3',4,4',5,5'-Hexachlorobiphenyl (PCB 169)	1.25E-03	c	5.89E-03	c	5.73E-03	n	2.00E-04	c	6.27E-05	1.25E-03
2',3,4,4',5-Pentachlorobiphenyl (PCB 123)	1.25E+00	c	5.89E+00	c	5.73E+00	n	2.00E-01	c	3.91E-02	7.83E-01
2',3',4,4',5-Pentachlorobiphenyl (PCB 118)	1.25E+00	c	5.89E+00	c	5.73E+00	n	2.00E-01	c	3.84E-02	7.67E-01
2',3,3',4,4'-Pentachlorobiphenyl (PCB 105)	1.25E+00	c	5.89E+00	c	5.73E+00	n	2.00E-01	c	3.91E-02	7.83E-01
2,3,4,4',5-Pentachlorobiphenyl (PCB 114)	1.25E+00	c	5.89E+00	c	5.73E+00	n	2.00E-01	c	3.91E-02	7.83E-01
3,3',4,4',5-Pentachlorobiphenyl (PCB 126)	3.75E-04	c	1.77E-03	c	1.72E-03	n	5.99E-05	c	1.15E-05	2.30E-04
3,3',4,4'-Tetrachlorobiphenyl (PCB 77)	3.75E-01	c	1.77E+00	c	1.72E+00	n	5.99E-02	c	7.03E-03	1.41E-01
3,4,4',5-Tetrachlorobiphenyl (PCB 81)	1.25E-01	c	5.89E-01	c	5.73E-01	n	2.00E-02	c	2.34E-03	4.69E-02
Propylene oxide	2.56E+01	c	1.33E+02	c	7.99E+02	n	2.66E+00	c	4.82E-04	9.65E-03
Pyrene	1.74E+03	n	2.53E+04	n	7.53E+03	n	1.17E+02	n	9.59E+00	1.92E+02
RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine	6.04E+01	c	3.11E+02	c	1.01E+03	n	7.02E+00	c	2.16E-03	4.31E-02
Selenium	3.91E+02	n	6.49E+03	n	1.75E+03	n	9.87E+01	n	5.11E-01	1.02E+01
Silver	3.91E+02	n	6.49E+03	n	1.77E+03	n	8.12E+01	n	6.88E-01	1.38E+01
Strontium	4.69E+04	n	7.79E+05	nl	2.12E+05	nl	1.18E+04	n	4.17E+02	8.33E+03
Styrene	7.26E+03	ns	5.13E+04	ns	1.02E+04	ns	1.21E+03	n	1.03E+00	2.06E+01
Sulfolane	6.16E+01	n	9.16E+02	n	2.65E+02	n	2.00E+01	n	3.75E-03	7.49E-02
2,3,7,8-TCDD	4.90E-05	c	2.48E-04	c	2.26E-04	n	5.99E-06	c	2.24E-06	4.48E-05
2,3,7,8-TCDF	4.90E-04	c	2.48E-03	c	1.72E-02	c	2.01E-06	c	4.22E-07	8.44E-06
1,2,4,5-Tetrachlorobenzene	1.85E+01	n	2.75E+02	n	8.07E+01	n	1.66E+00	n	5.83E-03	1.17E-01
1,1,1,2-Tetrachloroethane	2.81E+01	c	1.37E+02	c	6.59E+02	cs	5.72E+00	c	1.80E-03	3.59E-02
1,1,2,2-Tetrachloroethane	7.98E+00	c	3.94E+01	c	1.97E+02	c	7.57E-01	c	2.40E-04	4.80E-03
Tetrachloroethene	1.11E+02	ns	6.29E+02	ns	1.20E+02	ns	4.03E+01	n	1.60E-02	3.21E-01
Tetryl (Trinitrophenylmethylnitramine)	1.56E+02	n	2.59E+03	n	7.06E+02	n	3.94E+01	n	2.79E-01	5.59E+00

Chemical	Residential Soil (mg/kg)	End-point	Industrial/ Occupational Soil (mg/kg)	End-point	Construction Worker Soil (mg/kg)	End-point	Tap Water (ug/L)	End-point	Risk-based SSL for a DAF of 1 (mg/kg)	Risk-based SSL for a DAF of 20 (mg/kg)
Thallium	7.82E-01	n	1.30E+01	n	3.54E+00	n	1.97E-01	n	1.41E-02	2.81E-01
Toluene	5.23E+03	ns	6.13E+04	ns	1.40E+04	ns	1.09E+03	n	6.07E-01	1.21E+01
Toxaphene	4.84E+00	c	2.33E+01	c	1.70E+02	c	1.53E-01	c	1.77E-02	3.54E-01
Tribromomethane (Bromoform)	6.74E+02	c	3.25E+03	c	5.38E+03	n	9.19E+01	c	2.05E-02	4.11E-01
1,1,2-Trichloro-1,2,2-trifluoroethane	5.08E+04	ns	2.43E+05	nls	4.53E+04	ns	5.50E+04	n	1.60E+02	3.20E+03
1,2,4-Trichlorobenzene	8.29E+01	n	4.23E+02	ns	7.91E+01	n	3.98E+00	n	8.82E-03	1.76E-01
1,1,1-Trichloroethane	1.44E+04	ns	7.25E+04	ns	1.36E+04	ns	8.00E+03	n	2.55E+00	5.11E+01
1,1,2-Trichloroethane	2.61E+00	n	1.24E+01	n	2.30E+00	n	4.15E-01	n	1.11E-04	2.23E-03
Trichloroethylene	6.77E+00	n	3.65E+01	n	6.90E+00	n	2.82E+00	n	8.75E-04	1.75E-02
Trichlorofluoromethane	1.23E+03	ns	6.03E+03	ns	1.13E+03	ns	1.14E+03	n	7.84E-01	1.57E+01
2,4,5-Trichlorophenol	6.16E+03	n	9.16E+04	n	2.69E+04	n	1.17E+03	n	3.31E+00	6.62E+01
2,4,6-Trichlorophenol	6.16E+01	n	9.16E+02	n	2.69E+02	n	1.19E+01	n	3.37E-02	6.74E-01
1,1,2-Trichloropropane	3.91E+02	n	6.49E+03	ns	1.77E+03	ns	8.81E+01	n	2.79E-02	5.59E-01
1,2,3-Trichloropropane	5.10E-02	c	1.21E+00	c	6.31E+00	n	7.47E-03	c	2.60E-06	5.21E-05
Triethylamine	1.93E+02	n	9.09E+02	n	1.69E+02	n	1.46E+01	n	3.65E-03	7.31E-02
2,4,6-Trinitrotoluene	3.60E+01	n	5.73E+02	n	1.61E+02	n	9.80E+00	n	4.30E-02	8.61E-01
Uranium (soluable salts)	2.34E+02	n	3.88E+03	ns	2.77E+02	ns	5.92E+01	n	2.67E+01	5.33E+02
Vanadium	3.94E+02	n	6.53E+03	n	6.14E+02	n	6.31E+01	n	6.31E+01	1.26E+03
Vinyl acetate	2.56E+03	n	1.24E+04	ns	2.30E+03	ns	4.09E+02	n	7.52E-02	1.50E+00
Vinyl bromide	2.71E+00	c	1.31E+01	c	8.46E+00	n	1.75E+00	c	4.62E-04	9.23E-03
Vinyl chloride	7.42E-01	c	2.84E+01	c	1.61E+02	c	2.01E-01	c	6.75E-05	1.35E-03
m-Xylene	7.64E+02	ns	3.73E+03	ns	6.96E+02	ns	1.93E+02	n	1.48E-01	2.97E+00
o-Xylene	8.05E+02	ns	3.94E+03	ns	7.36E+02	ns	1.93E+02	n	1.49E-01	2.98E+00
Xylenes	8.71E+02	ns	4.28E+03	ns	7.98E+02	ns	1.93E+02	n	1.49E-01	2.98E+00
Zinc	2.35E+04	n	3.89E+05	nl	1.06E+05	nl	5.96E+03	n	3.71E+02	7.41E+03

c – carcinogen
cs - carcinogenic, SSL may exceed saturation
DAF – Dilution Attenuation Factor
mg/kg – milligrams per kilogram
n – noncarcinogenic
nl - noncarcinogen, SSL may exceed ceiling limit
ns - noncarcinogen, SSL may exceed saturation
nls - noncarcinogen, SSL may exceed both saturation and ceiling limit
SSL – Soil Screening Level
µg/L – micrograms per liter

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Toxicity and Chemical-specific Information													Contaminant		Screening Levels												Protection of Ground Water SSLs		
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	volatile	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
8.7E-03	I			4.0E-03	I					1	0.1		Acephate	30560-19-1	6.2E+01	c**	2.6E+02	c*					8.9E+00	c**		2.0E-03	c**	
		2.2E-06	I			9.0E-03	I	V		1		1.1E+05	Acetaldehyde	75-07-0	1.1E+01	c**	4.9E+01	c**	1.3E+00	c**	5.6E+00	c**	2.6E+00	c**		5.2E-04	c**	
				2.0E-02	I					1	0.1		Acetochlor	34256-82-1	1.3E+03	n	1.6E+04	n					3.5E+02	n		2.8E-01	n	
				9.0E-01	I	3.1E+01	A	V		1		1.1E+05	Acetone	67-64-1	6.1E+04	n	6.7E+05	nms	3.2E+04	n	1.4E+05	n	1.4E+04	n		2.9E+00	n	
						2.0E-03	X			1	0.1		Acetone Cyanohydrin	75-86-5	2.8E+06	nm	1.2E+07	nm	2.1E+00	n	8.8E+00	n						
						6.0E-02	I	V		1		1.3E+05	Acetonitrile	75-05-8	8.1E+02	n	3.4E+03	n	6.3E+01	n	2.6E+02	n	1.3E+02	n		2.6E-02	n	
				1.0E-01	I			V		1		2.5E+03	Acetophenone	98-86-2	7.8E+03	ns	1.2E+05	nms					1.9E+03	n		5.8E-01	n	
3.8E+00	C	1.3E-03	C							1	0.1		Acetylaminofluorene, 2-	53-96-3	1.4E-01	c	6.0E-01	c	2.2E-03	c	9.4E-03	c	1.6E-02	c		7.2E-05	c	
				5.0E-04	I	2.0E-05	I	V		1		2.3E+04	Acrolein	107-02-8	1.4E-01	n	6.0E-01	n	2.1E-02	n	8.8E-02	n	4.2E-02	n		8.4E-06	n	
5.0E-01	I	1.0E-04	I	2.0E-03	I	6.0E-03	I		M	1	0.1		Acrylamide	79-06-1	2.4E-01	c	4.6E+00	c	1.0E-02	c	1.2E-01	c	5.0E-02	c		1.1E-05	c	
				5.0E-01	I	1.0E-03	I	V		1		1.1E+05	Acrylic Acid	79-10-7	9.9E+01	n	4.2E+02	n	1.0E+00	n	4.4E+00	n	2.1E+00	n		4.2E-04	n	
5.4E-01	I	6.8E-05	I	4.0E-02	A	2.0E-03	I	V		1		1.1E+04	Acrylonitrile	107-13-1	2.5E-01	c*	1.1E+00	c*	4.1E-02	c*	1.8E-01	c*	5.2E-02	c*		1.1E-05	c*	
						6.0E-03	P			1	0.1		Adiponitrile	111-69-3	8.5E+06	nm	3.6E+07	nm	6.3E+00	n	2.6E+01	n						
5.6E-02	C			1.0E-02	I					1	0.1		Alachlor	15972-60-8	9.7E+00	c*	4.1E+01	c					1.1E+00	c	2.0E+00	8.7E-04	c	1.6E-03
				1.0E-03	I					1	0.1		Aldicarb	116-06-3	6.3E+01	n	8.2E+02	n					2.0E+01	n	3.0E+00	4.9E-03	n	7.5E-04
				1.0E-03	I					1	0.1		Aldicarb Sulfone	1646-88-4	6.3E+01	n	8.2E+02	n					2.0E+01	n	2.0E+00	4.4E-03	n	4.4E-04
										1	0.1		Aldicarb sulfoxide	1646-87-3											4.0E+00			8.8E-04
1.7E+01	I	4.9E-03	I	3.0E-05	I			V		1			Aldrin	309-00-2	3.9E-02	c*	1.8E-01	c	5.7E-04	c	2.5E-03	c	9.2E-04	c		1.5E-04	c	
				5.0E-03	I	1.0E-04	X	V		1		1.1E+05	Allyl Alcohol	107-18-6	3.5E+00	n	1.5E+01	n	1.0E-01	n	4.4E-01	n	2.1E-01	n		4.2E-05	n	
2.1E-02	C	6.0E-06	C			1.0E-03	I	V		1		1.4E+03	Allyl Chloride	107-05-1	7.2E-01	c**	3.2E+00	c**	4.70E-01	c**	2.00E+00	c**	7.3E-01	c**		2.3E-04	c**	
				1.0E+00	P	5.0E-03	P			1			Aluminum	7429-90-5	7.7E+04	n	1.1E+06	nm	5.2E+00	n	2.2E+01	n	2.0E+04	n		3.0E+04	n	
				4.0E-04	I					1			Aluminum Phosphide	20859-73-8	3.1E+01	n	4.7E+02	n					8.0E+00	n			n	
				9.0E-03	I					1	0.1		Ametryn	834-12-8	5.7E+02	n	7.4E+03	n					1.5E+02	n		1.6E-01	n	
2.1E+01	C	6.0E-03	C							1	0.1		Aminobiphenyl, 4-	92-67-1	2.6E-02	c	1.1E-01	c	4.7E-04	c	2.0E-03	c	3.0E-03	c		1.5E-05	c	
				8.0E-02	P					1	0.1		Aminophenol, m-	591-27-5	5.1E+03	n	6.6E+04	n					1.6E+03	n		6.1E-01	n	
				2.0E-02	P					1	0.1		Aminophenol, p-	123-30-8	1.3E+03	n	1.6E+04	n					4.0E+02	n		1.5E-01	n	
				2.5E-03	I					1	0.1		Amitraz	33089-61-1	1.6E+02	n	2.1E+03	n					8.2E+00	n		4.2E+00	n	
						1.0E-01	I	V		1			Ammonia	7664-41-7					1.0E+02	n	4.4E+02	n						
				2.0E-01	I					1			Ammonium Sulfamate	7773-06-0	1.6E+04	n	2.3E+05	nm					4.0E+03	n			n	
						3.0E-03	X	V		1		1.4E+04	Amyl Alcohol, tert-	75-85-4	8.2E+01	n	3.4E+02	n	3.1E+00	n	1.3E+01	n	6.3E+00	n		1.3E-03	n	
5.7E-03	I	1.6E-06	C	7.0E-03	P	1.0E-03	I			1	0.1		Aniline	62-53-3	9.5E+01	c**	4.0E+02	c*	1.0E+00	n	4.4E+00	n	1.3E+01	c*		4.6E-03	c*	
4.0E-02	P			2.0E-03	X					1	0.1		Anthraquinone, 9,10-	84-65-1	1.4E+01	c**	5.7E+01	c*					1.4E+00	c*		1.4E-02	c*	
				4.0E-04	I					0.15			Antimony (metallic)	7440-36-0	3.1E+01	n	4.7E+02	n					7.8E+00	n	6.0E+00	3.5E-01	n	2.7E-01
				5.0E-04	H					0.15			Antimony Pentoxide	1314-60-9	3.9E+01	n	5.8E+02	n					9.7E+00	n			n	
				4.0E-04	H					0.15			Antimony Tetroxide	1332-81-6	3.1E+01	n	4.7E+02	n					7.8E+00	n			n	
						2.0E-04	I			0.15			Antimony Trioxide	1309-64-4	2.8E+05	nm	1.2E+06	nm	2.1E-01	n	8.8E-01	n						
1.5E+00	I	4.3E-03	I	3.0E-04	I	1.5E-05	C			1	0.03		Arsenic, Inorganic	7440-38-2	6.8E-01	c*R	3.0E+00	cR	6.5E-04	c*	2.9E-03	c*	5.2E-02	c	1.0E+01	1.5E-03	c	2.9E-01
				3.5E-06	C	5.0E-05	I			1			Arsine	7784-42-1	2.7E-01	n	4.1E+00	n	5.2E-02	n	2.2E-01	n	7.0E-02	n			n	
				5.0E-02	I					1	0.1		Asulam	3337-71-1	3.2E+03	n	4.1E+04	n					1.0E+03	n		2.6E-01	n	
2.3E-01	C			3.5E-02	I					1	0.1		Atrazine	1912-24-9	2.4E+00	c	1.0E+01	c					3.0E-01	c	3.0E+00	2.0E-04	c	1.9E-03
8.8E-01	C	2.5E-04	C							1	0.1		Auramine	492-80-8	6.2E-01	c	2.6E+00	c	1.1E-02	c	4.9E-02	c	6.7E-02	c		6.1E-04	c	
				4.0E-04	I					1	0.1		Avermectin B1	65195-55-3	2.5E+01	n	3.3E+02	n					8.0E+00	n		1.4E+01	n	
				3.0E-03	A	1.0E-02	A			1	0.1		Azinphos-methyl	86-50-0	1.9E+02	n	2.5E+03	n	1.0E+01	n	4.4E+01	n	5.6E+01	n		1.7E-02	n	
1.1E-01	I	3.1E-05	I					V		1			Azobenzene	103-33-3	5.6E+00	c	2.6E+01	c	9.1E-02	c	4.0E-01	c	1.2E-01	c		9.3E-04	c	
				1.0E+00	P	7.0E-06	P			1	0.1		Azodicarbonamide	123-77-3	8.6E+03	n	4.0E+04	n	7.3E-03	n	3.1E-02	n	2.0E+04	n		6.8E+00	n	
				2.0E-01	I	5.0E-04	H			0.07			Barium	7440-39-3	1.5E+04	n	2.2E+05	nm	5.2E-01	n	2.2E+00	n	3.8E+03	n	2.0E+03	1.6E+02	n	8.2E+01
5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C		M	0.025			Barium Chromate	10294-40-3	3.0E-01	c	6.2E+00	c	6.8E-06	c	8.2E-05	c	4.1E-02	c			c	
				3.0E-01	I			V		1			Benfluralin	1861-40-1	2.3E+04	n	3.5E+05	nm					1.7E+03	n		5.6E+01	n	
				5.0E-02	I					1	0.1		Benomyl	17804-35-2	3.2E+03	n	4.1E+04	n					9.7E+02	n		8.5E-01	n	
				2.0E-01	I					1	0.1		Bensulfuron-methyl	83055-99-6	1.3E+04	n	1.6E+05	nm					3.9E+03	n		1.0E+00	n	
				3.0E-02	I					1	0.1		Bentazon	25057-89-0	1.9E+03	n	2.5E+04	n					5.7E+02	n		1.2E-01	n	
4.0E-03	P			1.0E-01	I			V		1		1.2E+03	Benzaldehyde	100-52-7	1.7E+02	c*	8.2E+02	c					1.9E+01	c		4.1E-03	c	
5.5E-02	I	7.8E-06	I	4.0E-03	I	3.0E-02	I	V		1		1.8E+03	Benzene	71-43-2	1.2E+00	c*	5.1E+00	c*	3.6E-01	c*	1.6E+00	c*	4.6E-01	c*	5.0E+00	2.3E-04	c*	2.6E-03
1.0E-01	X			3.0E-04	X					1	0.1		Benzenediamine-2-methyl sulfate, 1,4-	6369-59-1	5.4E+00	c**	2.3E+01	c*					7.8E-01	c**		2.2E-04	c**	
				1.0E-03	P			V		1		1.3E+03	Benzenethiol	108-98-5	7.8E+01	n	1.2E+03	n					1.7E+01	n		1.1E-02	n	
2.3E+02	I	6.7E-02	I	3.0E-03	I				M	1	0.1		Benzidine	92-87-5	5.3E-04	c	1.0E-02	c	1.5E-05	c	1.8E-04	c	1.1E-04	c		2.8E-07	c	
				4.0E+00	I					1	0.1		Benzoic Acid	65-85-0	2.5E+05	nm	3.3E+06	nm					7.5E+04	n		1.5E+01	n	
1.3E+01	I							V		1		3.2E+02	Benzotrichloride	98-07-7	5.3E-02	c	2.5E-01	c					3.0E-03	c		6.6E-06	c	
				1.0E-01	P					1	0.1		Benzyl Alcohol	100-51-6	6.3E+03	n	8.2E+04	n					2.0E+03	n		4.8E-01	n	
1.7E-01	I	4.9E-05	C	2.0E-03	P	1.0E-03	P	V		1		1.5E+03	Benzyl Chloride	100-44-7	1.1E+00	c*	4.8E+00	c*	5.7E-02	c*	2.5E-01	c*	8.9E-02	c*		9.8E-05	c*	
		2.4E-03	I	2.0E-03	I	2.0E-05	I			0.007			Beryllium and compounds	7440-41-7	1.6E+02	n	2.3E+03	n	1.2E-03	c*	5.1E-03	c*	2.5E+01	n	4.0E+00	1.9E+01	n	3.2E+00
				9.0E-03	P					1	0.1		Bifenox	42576-02-3	5.7E+02	n	7.4E+03	n					1.0E+02	n		7.6E-01	n	
				1.5E-02	I					1	0.1		Biphenthrin	82657-04-3	9.5E+02	n	1.2E+04	n					3.0E+02	n		1.4E+03	n	
8.0E-03	I			5.0E-01	I	4.0E-04	X	V		1			Biphenyl, 1,1'-	92-52-4	4.7E+01	n	2.0E+02	n	4.2E-01	n	1.8E+00	n	8.3E-01	n		8.7E-03	n	
				4.0E-02	I			V		1		1.0E+03	Bis(2-chloro-1-methylethyl) ether	108-60-1	3.1E+03	ns	4.7E+04	ns					7.1E+02	n		2.6E-01	n	
				3.0E-03	P					1	0.1		Bis(2-chloroethoxy)methane	111-91-1	1.9E+02	n	2.5E+03	n					5.9E+01	n		1.3E-02	n	
1.1E+00	I	3.3E-04	I					V		1		5.1E+03	Bis(2-chloroethyl)ether	111-44-4	2.3E-01	c	1.0E+00	c	8.5E-03	c	3.7E-02	c	1.4E-02	c		3.6E-06	c	
2.2E+02	I	6.2E-02	I					V		1		4.2E+03	Bis(chloromethyl)ether	542-88-1	8.3E-05	c	3.6E-04	c	4.5E-05	c	2.0E-04	c	7.2E-05	c		1.7E-08	c	
				5.0E-02	I					1	0.1		Bisphenol A	80-05-7	3.2E+03	n	4.1E+04	n					7.7E+02	n		5.8E+01	n	
				2.0E-01	I	2.0E-02	H			1			Boron And Borates Only	7440-42-8	1.6E+04	n	2.3E+05	nm	2.1E+01	n	8.8E+01	n	4.0E+03	n		1.3E+01	n	
				2.0E+00	P	2.0E-02	P	V		1			Boron Trichloride	10294-34-5	1.6E+05	nm	2.3E+06	nm	2.1E+01	n	8.8E+01	n	4.2E+01	n			n	
				4.0E-02	C	1.3E-02	C	V		1			Boron Trifluoride	7637-07-2	3.1E+03	n	4.7E+04	n	1.4E+01	n	5.7E+01	n	2.6E+01	n			n	
7.0E-01	I			4.0E-03	I					1			Bromate	15541-45-4	9.9E-01	c	4.7E+00	c					1.1E-01	c	1.0E+01	8.5E-04	c	7.7E-02
2.0E+00	X	6.0E-04	X					V		1		2.4E+03	Bromo-2-chloroethane, 1-	107-04-0	2.6E-02	c	1.1E-01	c	4.7E-03	c	2.0E-02	c	7.4E-03	c		2.1E-06	c	
				8.0E-03	I	6.0E-02	I	V		1		6.8E+02	Bromobenzene	108-86-1	2.9E+02	n	1.8E+03	ns	6.3E+01	n	2.6E+02	n	6.2E+01	n		4.2E-02	n	
						4.0E-02	X	V		1		4.0E+03	Bromochloromethane	74-97-5	1.5E+02	n	6.3E+02	n	4.2E+01	n	1.8E+02	n	8.3E+01	n		2.1E-02	n	

TR=1E-0
THQ=1.0

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Toxicity and Chemical-specific Information												Contaminant		Screening Levels												Protection of Ground Water SSLs		
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	volatile	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
6.2E-02	I	3.7E-05	C	2.0E-02	I			V		1		9.3E+02	Bromodichloromethane	75-27-4	2.9E-01	c	1.3E+00	c	7.6E-02	c	3.3E-01	c	1.3E-01	c	8.0E+01(F)	3.6E-05	c	2.2E-02
7.9E-03	I	1.1E-06	I	2.0E-02	I			V		1		9.2E+02	Bromoform	75-25-2	1.9E+01	c*	8.6E+01	c	2.6E+00	c	1.1E+01	c	3.3E+00	c	8.0E+01(F)	8.7E-04	c	2.1E-02
				1.4E-03	I	5.0E-03	I	V		1		3.6E+03	Bromomethane	74-83-9	6.8E+00	n	3.0E+01	n	5.2E+00	n	2.2E+01	n	7.5E+00	n		1.9E-03	n	
				5.0E-03	H			V		1			Bromophos	2104-96-3	3.9E+02	n	5.8E+03	n					3.5E+01	n		1.5E-01	n	
				2.0E-02	I					1	0.1		Bromoxynil	1689-84-5	1.3E+03	n	1.6E+04	n					3.3E+02	n		2.8E-01	n	
				2.0E-02	I			V		1			Bromoxynil Octanoate	1689-99-2	1.6E+03	n	2.3E+04	n					1.4E+02	n		1.2E+00	n	
3.4E+00	C	3.0E-05	I			2.0E-03	I	V		1		6.7E+02	Butadiene, 1,3-	106-99-0	5.8E-02	c*	2.6E-01	c*	9.4E-02	c*	4.1E-01	c*	1.8E-02	c		9.9E-06	c	
				1.0E-01	I			V		1		7.6E+03	Butanol, N-	71-36-3	7.8E+03	ns	1.2E+05	nms					2.0E+03	n		4.1E-01	n	
				2.0E+00	P	3.0E+01	P	V		1		2.1E+04	Butyl alcohol, sec-	78-92-2	1.3E+05	nms	1.5E+06	nms	3.1E+04	n	1.3E+05	n	2.4E+04	n		5.0E+00	n	
				5.0E-02	I			V		1			Butylate	2008-41-5	3.9E+03	n	5.8E+04	n					4.6E+02	n		4.5E-01	n	
2.0E-04	C	5.7E-08	C							1	0.1		Butylated hydroxyanisole	25013-16-5	2.7E+03	c	1.1E+04	c	4.9E+01	c	2.2E+02	c	1.5E+02	c		2.9E-01	c	
3.6E-03	P			3.0E-01	P					1	0.1		Butylated hydroxytoluene	128-37-0	1.5E+02	c	6.4E+02	c					3.4E+00	c		1.0E-01	c	
				5.0E-02	P			V		1		1.1E+02	Butylbenzene, n-	104-51-8	3.9E+03	ns	5.8E+04	ns					1.0E+03	n		3.2E+00	n	
				1.0E-01	X			V		1		1.5E+02	Butylbenzene, sec-	135-98-8	7.8E+03	ns	1.2E+05	nms					2.0E+03	n		5.9E+00	n	
				1.0E-01	X			V		1		1.8E+02	Butylbenzene, tert-	98-06-6	7.8E+03	ns	1.2E+05	nms					6.9E+02	n		1.6E+00	n	
				2.0E-02	A					1	0.1		Cacodylic Acid	75-60-5	1.3E+03	n	1.6E+04	n					4.0E+02	n		1.1E-01	n	
		1.8E-03	I	1.0E-03	I	1.0E-05	A			0.025	0.001		Cadmium (Diet)	7440-43-9	7.1E+01	n	9.8E+02	n										
		1.8E-03	I	5.0E-04	I	1.0E-05	A			0.05	0.001		Cadmium (Water)	7440-43-9					1.6E-03	c**	6.8E-03	c**	9.2E+00	n	5.0E+00	6.9E-01	n	3.6E-01
5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C		M	0.025			Calcium Chromate	13765-19-0	3.0E-01	c	6.2E+00	c	6.8E-06	c	8.2E-05	c	4.1E-02	c			c	
				5.0E-01	I	2.2E-03	C			1	0.1		Caprolactam	105-60-2	3.1E+04	n	4.0E+05	nm	2.3E+00	n	9.6E+00	n	9.9E+03	n		2.5E+00	n	
1.5E-01	C	4.3E-05	C	2.0E-03	I					1	0.1		Captafol	2425-06-1	3.6E+00	c*	1.5E+01	c	6.5E-02	c	2.9E-01	c	4.0E-01	c*		7.1E-04	c*	
2.3E-03	C	6.6E-07	C	1.3E-01	I					1	0.1		Captan	133-06-2	2.4E+02	c*	1.0E+03	c	4.3E+00	c	1.9E+01	c	3.1E+01	c*		2.2E-02	c*	
				1.0E-01	I					1	0.1		Carbaryl	63-25-2	6.3E+03	n	8.2E+04	n					1.8E+03	n		1.7E+00	n	
				5.0E-03	I					1	0.1		Carbofuran	1563-66-2	3.2E+02	n	4.1E+03	n					9.4E+01	n	4.0E+01	3.7E-02	n	1.6E-02
				1.0E-01	I	7.0E-01	I	V		1		7.4E+02	Carbon Disulfide	75-15-0	7.7E+02	ns	3.5E+03	ns	7.3E+02	n	3.1E+03	n	8.1E+02	n		2.4E-01	n	
7.0E-02	I	6.0E-06	I	4.0E-03	I	1.0E-01	I	V		1		4.6E+02	Carbon Tetrachloride	56-23-5	6.5E-01	c	2.9E+00	c	4.7E-01	c	2.0E+00	c	4.6E-01	c	5.0E+00	1.8E-04	c	1.9E-03
						1.0E-01	P	V		1		5.9E+03	Carbonyl Sulfide	463-58-1	6.7E+01	n	2.8E+02	n	1.0E+02	n	4.4E+02	n	2.1E+02	n		5.1E-01	n	
				1.0E-02	I					1	0.1		Carbosulfan	55285-14-8	6.3E+02	n	8.2E+03	n					5.1E+01	n		1.2E+00	n	
				1.0E-01	I					1	0.1		Carboxin	5234-68-4	6.3E+03	n	8.2E+04	n					1.9E+03	n		1.0E+00	n	
						9.0E-04	I			1			Ceric oxide	1306-38-3	1.3E+06	nm	5.4E+06	nm	9.4E-01	n	3.9E+00	n						
				1.0E-01	I			V		1			Chloral Hydrate	302-17-0	7.8E+03	n	1.2E+05	nm					2.0E+03	n		4.0E-01	n	
				1.5E-02	I					1	0.1		Chloramben	133-90-4	9.5E+02	n	1.2E+04	n					2.9E+02	n		7.0E-02	n	
4.0E-01	H									1	0.1		Chloranil	118-75-2	1.3E+00	c	5.7E+00	c					1.8E-01	c		1.5E-04	c	
3.5E-01	I	1.0E-04	I	5.0E-04	I	7.0E-04	I	V		1	0.04		Chlordane	12789-03-6	1.7E+00	c*	7.7E+00	c*	2.8E-02	c*	1.2E-01	c*	2.0E-02	c*	2.0E+00	2.7E-03	c*	2.7E-01
1.0E+01	I	4.6E-03	C	3.0E-04	I					1	0.1		Chlordecone (Kepone)	143-50-0	5.4E-02	c	2.3E-01	c	6.1E-04	c	2.7E-03	c	3.5E-03	c		1.2E-04	c	
				7.0E-04	A					1	0.1		Chlorfenvinphos	470-90-6	4.4E+01	n	5.7E+02	n					1.1E+01	n		3.1E-02	n	
				2.0E-02	I					1	0.1		Chlorimuron, Ethyl-	90982-32-4	1.3E+03	n	1.6E+04	n					3.9E+02	n		1.3E-01	n	
				1.0E-01	I	1.5E-04	A	V		1		2.8E+03	Chlorine	7782-50-5	1.8E-01	n	7.8E-01	n	1.5E-01	n	6.4E-01	n	3.0E-01	n		1.4E-04	n	
				3.0E-02	I	2.0E-04	I	V		1			Chlorine Dioxide	10049-04-4	2.3E+03	n	3.4E+04	n	2.1E-01	n	8.8E-01	n	4.2E-01	n			n	
				3.0E-02	I					1			Chlorite (Sodium Salt)	7758-19-2	2.3E+03	n	3.5E+04	n					6.0E+02	n	1.0E+03		n	
						5.0E+01	I	V		1		1.2E+03	Chloro-1,1-difluoroethane, 1-	75-68-3	5.4E+04	ns	2.3E+05	nms	5.2E+04	n	2.2E+05	n	1.0E+05	n		5.2E+01	n	
		3.0E-04	I	2.0E-02	H	2.0E-02	I	V		1		7.9E+02	Chloro-1,3-butadiene, 2-	126-99-8	1.0E-02	c	4.4E-02	c	9.4E-03	c	4.1E-02	c	1.9E-02	c		9.8E-06	c	
4.6E-01	H									1	0.1		Chloro-2-methylaniline HCl, 4-	3165-93-3	1.2E+00	c	5.0E+00	c					1.7E-01	c		1.5E-04	c	
1.0E-01	P	7.7E-05	C	3.0E-03	X					1	0.1		Chloro-2-methylaniline, 4-	95-69-2	5.4E+00	c*	2.3E+01	c	3.6E-02	c	1.6E-01	c	7.0E-01	c*		4.0E-04	c*	
2.7E-01	X							V		1		1.2E+04	Chloroacetaldehyde, 2-	107-20-0	2.6E+00	c	1.2E+01	c					2.9E-01	c		5.8E-05	c	
										1	0.1		Chloroacetic Acid	79-11-8											6.0E+01			1.2E-02
						3.0E-05	I			1	0.1		Chloroacetophenone, 2-	532-27-4	4.3E+04	n	1.8E+05	nm	3.1E-02	n	1.3E-01	n						
2.0E-01	P			4.0E-03	I					1	0.1		Chloroaniline, p-	106-47-8	2.7E+00	c*	1.1E+01	c					3.7E-01	c		1.6E-04	c	
				2.0E-02	I	5.0E-02	P	V		1		7.6E+02	Chlorobenzene	108-90-7	2.8E+02	n	1.3E+03	ns	5.2E+01	n	2.2E+02	n	7.8E+01	n	1.0E+02	5.3E-02	n	6.8E-02
1.1E-01	C	3.1E-05	C	2.0E-02	I					1	0.1		Chlorobenzilate	510-15-6	4.9E+00	c	2.1E+01	c	9.1E-02	c	4.0E-01	c	3.1E-01	c		1.0E-03	c	
				3.0E-02	X					1	0.1		Chlorobenzoic Acid, p-	74-11-3	1.9E+03	n	2.5E+04	n					5.1E+02	n		1.3E-01	n	
				3.0E-03	P	3.0E-01	P	V		1		2.9E+02	Chlorobenzotrifluoride, 4-	98-56-6	2.1E+02	n	2.5E+03	ns	3.1E+02	n	1.3E+03	n	3.5E+01	n		1.2E-01	n	
				4.0E-02	P			V		1		7.3E+02	Chlorobutane, 1-	109-69-3	3.1E+03	ns	4.7E+04	ns					6.4E+02	n		2.6E-01	n	
						5.0E+01	I	V		1		1.7E+03	Chlorodifluoromethane	75-45-6	4.9E+04	ns	2.1E+05	nms	5.2E+04	n	2.2E+05	n	1.0E+05	n		4.3E+01	n	
				2.0E-02	P			V		1		1.1E+05	Chloroethanol, 2-	107-07-3	1.6E+03	n	2.3E+04	n					4.0E+02	n		8.1E-02	n	
3.1E-02	C	2.3E-05	I	1.0E-02	I	9.8E-02	A	V		1		2.5E+03	Chloroform	67-66-3	3.2E-01	c	1.4E+00	c	1.2E-01	c	5.3E-01	c	2.2E-01	c	8.0E+01(F)	6.1E-05	c	2.2E-02
						9.0E-02	I	V		1		1.3E+03	Chloromethane	74-87-3	1.1E+02	n	4.6E+02	n	9.4E+01	n	3.9E+02	n	1.9E+02	n		4.9E-02	n	
2.4E+00	C	6.9E-04	C					V		1		9.3E+03	Chloromethyl Methyl Ether	107-30-2	2.0E-02	c	8.9E-02	c	4.1E-03	c	1.8E-02	c	6.5E-03	c		1.4E-06	c	
3.0E-01	P			3.0E-03	P	1.0E-05	X			1	0.1		Chloronitrobenzene, o-	88-73-3	1.8E+00	c	7.7E+00	c	1.0E-02	n	4.4E-02	n	2.4E-01	c		2.2E-04	c	
6.0E-02	P			7.0E-04	P	2.0E-03	P			1	0.1		Chloronitrobenzene, p-	100-00-5	9.0E+00	c**	3.8E+01	c*	2.1E+00	n	8.8E+00	n	1.2E+00	c*		1.1E-03	c*	
				5.0E-03	I			V		1		2.7E+04	Chlorophenol, 2-	95-57-8	3.9E+02	n	5.8E+03	n					9.1E+01	n		8.9E-02	n	
						4.0E-04	C	V		1		6.2E+02	Chloropicrin	76-06-2	2.0E+00	n	8.2E+00	n	4.2E-01	n	1.8E+00	n	8.3E-01	n		2.5E-04	n	
3.1E-03	C	8.9E-07	C	1.5E-02	I					1	0.1		Chlorothalonil	1897-45-6	1.8E+02	c**	7.4E+02	c*	3.2E+00	c	1.4E+01	c	2.2E+01	c*		5.0E-02	c*	
				2.0E-02	I			V		1		9.1E+02	Chlorotoluene, o-	95-49-8	1.6E+03	ns	2.3E+04	ns					2.4E+02	n		2.3E-01	n	
				2.0E-02	X			V		1		2.5E+02	Chlorotoluene, p-	106-43-4	1.6E+03	ns	2.3E+04	ns					2.5E+02	n		2.4E-01	n	
2.4E+02	C	6.9E-02	C							1	0.1		Chlorozotocin	54749-90-5	2.3E-03	c	9.6E-03	c	4.1E-05	c	1.8E-04	c	3.2E-04	c		7.1E-08	c	
				2.0E-01	I					1	0.1		Chlorpropham	101-21-3	1.3E+04	n	1.6E+05	nm					2.8E+03	n		2.6E+00	n	
				1.0E-03	A					1	0.1		Chlorpyrifos	2921-88-2	6.3E+01	n	8.2E+02	n					8.4E+00	n		1.2E-01	n	
				1.0E-02	H					1	0.1		Chlorpyrifos Methyl	5598-13-0	6.3E+02	n	8.2E+03	n					1.2E+02	n		5.4E-01	n	
				5.0E-02	I					1	0.1		Chlorsulfuron	64902-72-3	3.2E+03	n	4.1E+04	n					9.9E+02	n		8.3E-01	n	
				1.0E-02	I					1	0.1		Chlorthal-dimethyl	1861-32-1	6.3E+02	n	8.2E+03	n					1.2E+02	n		1.5E-01	n	
				8.0E-04	H					1	0.1		Chlorthiophos	60238-56-4	5.1E+01	n	6.6E+02	n					2.8E+00	n		7.3E-02	n	
				1.5E+00	I					0.013			Chromium(III), Insoluble Salts	16065-83-1	1.2E+05	nm	1.8E+06	nm					2.2E+04	n		4.0E+07	n	
5.0E-01	J	8.4E-02	S	3.0E-03	I	1.0E-04	I		M	0.025			Chromium(VI)	18540-29-9	3.0E-01	c	6.3E+00	c	1.2E-05	c	1.5E-04	c	3.5E-02	c		6.7E-04	c	
										0.013			Chromium, Total	7440-47-3											1.0E+02			1.8E+05
				1.3E-02	I					1	0.1		Clofentezine	74115-24-5	8.2E+02	n	1.1E+04	n					2.3E+02	n		1.4E+01	n	

TR=1E-0
THQ=1.0

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Toxicity and Chemical-specific Information															Contaminant		Screening Levels												Protection of Ground Water SSLs		
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
		9.0E-03	P	3.0E-04	P	6.0E-06	P			1			Cobalt	7440-48-4	2.3E+01	n	3.5E+02	n	3.1E-04	c*	1.4E-03	c*	6.0E+00	n		2.7E-01	n			
		6.2E-04	I					V	M	1			Coke Oven Emissions	8007-45-2					1.6E-03	c	2.0E-02	c								
				4.0E-02	H					1			Copper	7440-50-8	3.1E+03	n	4.7E+04	n					8.0E+02	n	1.3E+03	2.8E+01	n	4.6E+01		
				5.0E-02	I	6.0E-01	C			1	0.1		Cresol, m-	108-39-4	3.2E+03	n	4.1E+04	n	6.3E+02	n	2.6E+03	n	9.3E+02	n		7.4E-01	n			
				5.0E-02	I	6.0E-01	C			1	0.1		Cresol, o-	95-48-7	3.2E+03	n	4.1E+04	n	6.3E+02	n	2.6E+03	n	9.3E+02	n		7.5E-01	n			
				1.0E-01	A	6.0E-01	C			1	0.1		Cresol, p-	106-44-5	6.3E+03	n	8.2E+04	n	6.3E+02	n	2.6E+03	n	1.9E+03	n		1.5E+00	n			
				1.0E-01	A					1	0.1		Cresol, p-chloro-m-	59-50-7	6.3E+03	n	8.2E+04	n					1.4E+03	n		1.7E+00	n			
				1.0E-01	A	6.0E-01	C			1	0.1		Cresols	1319-77-3	6.3E+03	n	8.2E+04	n	6.3E+02	n	2.6E+03	n	1.5E+03	n		1.3E+00	n			
1.9E+00	H			1.0E-03	P			V		1		1.7E+04	Crotonaldehyde, trans-	123-73-9	3.7E-01	c	1.7E+00	c					4.0E-02	c		8.2E-06	c			
				1.0E-01	I	4.0E-01	I	V		1		2.7E+02	Cumene	98-82-8	1.9E+03	ns	9.9E+03	ns	4.2E+02	n	1.8E+03	n	4.5E+02	n		7.4E-01	n			
2.2E-01	C	6.3E-05	C							1	0.1		Cupferron	135-20-6	2.5E+00	c	1.0E+01	c	4.5E-02	c	1.9E-01	c	3.5E-01	c		6.1E-04	c			
8.4E-01	H			2.0E-03	H					1	0.1		Cyanazine	21725-46-2	6.5E-01	c	2.7E+00	c					8.8E-02	c		4.1E-05	c			
													Cyanides																	
				1.0E-03	I					1			~Calcium Cyanide	592-01-8	7.8E+01	n	1.2E+03	n					2.0E+01	n			n			
				5.0E-03	I					1			~Copper Cyanide	544-92-3	3.9E+02	n	5.8E+03	n					1.0E+02	n			n			
				6.0E-04	I	8.0E-04	S	V		1		9.5E+05	~Cyanide (CN-)	57-12-5	2.3E+01	n	1.5E+02	n	8.3E-01	n	3.5E+00	n	1.5E+00	n	2.0E+02	1.5E-02	n	2.0E+00		
				1.0E-03	I			V		1			~Cyanogen	460-19-5	7.8E+01	n	1.2E+03	n					2.0E+01	n			n			
				9.0E-02	I			V		1			~Cyanogen Bromide	506-68-3	7.0E+03	n	1.1E+05	nm					1.8E+03	n			n			
				5.0E-02	I			V		1			~Cyanogen Chloride	506-77-4	3.9E+03	n	5.8E+04	n					1.0E+03	n			n			
				6.0E-04	I	8.0E-04	I	V		1		1.0E+07	~Hydrogen Cyanide	74-90-8	2.3E+01	n	1.5E+02	n	8.3E-01	n	3.5E+00	n	1.5E+00	n		1.5E-02	n			
				2.0E-03	I					1			~Potassium Cyanide	151-50-8	1.6E+02	n	2.3E+03	n					4.0E+01	n			n			
				5.0E-03	I					0.04			~Potassium Silver Cyanide	506-61-6	3.9E+02	n	5.8E+03	n					8.2E+01	n			n			
				1.0E-01	I					0.04			~Silver Cyanide	506-64-9	7.8E+03	n	1.2E+05	nm					1.8E+03	n			n			
				1.0E-03	I					1			~Sodium Cyanide	143-33-9	7.8E+01	n	1.2E+03	n					2.0E+01	n	2.0E+02		n			
				2.0E-04	P					1			~Thiocyanates	NA	1.6E+01	n	2.3E+02	n					4.0E+00	n			n			
				2.0E-04	X			V		1			~Thiocyanic Acid	463-56-9	1.6E+01	n	2.3E+02	n					4.0E+00	n			n			
				5.0E-02	I					1			~Zinc Cyanide	557-21-1	3.9E+03	n	5.8E+04	n					1.0E+03	n			n			
						6.0E+00	I	V		1		1.2E+02	Cyclohexane	110-82-7	6.5E+03	ns	2.7E+04	ns	6.3E+03	n	2.6E+04	n	1.3E+04	n		1.3E+01	n			
2.3E-02	H									1	0.1		Cyclohexane, 1,2,3,4,5-pentabromo-6-chloro-	87-84-3	2.4E+01	c	1.0E+02	c					2.4E+00	c		1.4E-02	c			
				5.0E+00	I	7.0E-01	P	V		1		5.1E+03	Cyclohexanone	108-94-1	2.8E+04	ns	1.3E+05	nms	7.3E+02	n	3.1E+03	n	1.4E+03	n		3.4E-01	n			
				5.0E-03	P	1.0E+00	X	V		1		2.8E+02	Cyclohexene	110-83-8	3.1E+02	ns	3.1E+03	ns	1.0E+03	n	4.4E+03	n	7.0E+01	n		4.6E-02	n			
				2.0E-01	I			V		1		2.9E+05	Cyclohexylamine	108-91-8	1.6E+04	n	2.3E+05	nm					3.8E+03	n		1.0E+00	n			
				2.5E-02	I					1	0.1		Cyfluthrin	68359-37-5	1.6E+03	n	2.1E+04	n					1.2E+02	n		3.1E+01	n			
				5.0E-03	I					1	0.1		Cyhalothrin	68085-85-8	3.2E+02	n	4.1E+03	n					1.0E+02	n		6.8E+01	n			
				1.0E-02	I					1	0.1		Cypermethrin	52315-07-8	6.3E+02	n	8.2E+03	n					2.0E+02	n		3.2E+01	n			
				7.5E-03	I					1	0.1		Cyromazine	66215-27-8	4.7E+02	n	6.2E+03	n					1.5E+02	n		3.8E-02	n			
2.4E-01	I	6.9E-05	C							1	0.1		DDD	72-54-8	2.3E+00	c	9.6E+00	c	4.1E-02	c	1.8E-01	c	3.2E-02	c		7.5E-03	c			
3.4E-01	I	9.7E-05	C					V		1			DDE, p,p'-	72-55-9	2.0E+00	c	9.3E+00	c	2.9E-02	c	1.3E-01	c	4.6E-02	c		1.1E-02	c			
3.4E-01	I	9.7E-05	I	5.0E-04	I					1	0.03		DDT	50-29-3	1.9E+00	c*	8.5E+00	c*	2.9E-02	c	1.3E-01	c	2.3E-01	c*		7.7E-02	c*			
				3.0E-02	I					1	0.1		Dalapon	75-99-0	1.9E+03	n	2.5E+04	n					6.0E+02	n	2.0E+02	1.2E-01	n	4.1E-02		
1.8E-02	C	5.1E-06	C	1.5E-01	I					1	0.1		Daminozide	1596-84-5	3.0E+01	c	1.3E+02	c	5.5E-01	c	2.4E+00	c	4.3E+00	c		9.5E-04	c			
7.0E-04	I			7.0E-03	I					1	0.1		Decabromodiphenyl ether (2,2',3,3',4,4',5,5',6,6'- (BDE-209)	1163-19-5	4.4E+02	n	3.3E+03	c**					1.1E+02	c**		6.2E+01	c**			
				4.0E-05	I					1	0.1		Demeton	8065-48-3	2.5E+00	n	3.3E+01	n					4.2E-01	n			n			
1.2E-03	I			6.0E-01	I					1	0.1		Di(2-ethylhexyl)adipate	103-23-1	4.5E+02	c*	1.9E+03	c					6.5E+01	c	4.0E+02	4.7E+00	c	2.9E+01		
6.1E-02	H									1	0.1		Diallate	2303-16-4	8.9E+00	c	3.8E+01	c					5.4E-01	c		8.0E-04	c			
				7.0E-04	A					1	0.1		Diazinon	333-41-5	4.4E+01	n	5.7E+02	n					1.0E+01	n		6.5E-02	n			
				1.0E-02	X			V		1			Dibenzothiophene	132-65-0	7.8E+02	n	1.2E+04	n					6.5E+01	n		1.2E+00	n			
8.0E-01	P	6.0E-03	P	2.0E-04	P	2.0E-04	I	V	M	1		9.8E+02	Dibromo-3-chloropropane, 1,2-	96-12-8	5.3E-03	c	6.4E-02	c	1.7E-04	c	2.0E-03	c	3.3E-04	c	2.0E-01	1.4E-07	c	8.6E-05		
				4.0E-04	X			V		1		1.6E+02	Dibromobenzene, 1,3-	108-36-1	3.1E+01	n	4.7E+02	ns					5.3E+00	n		5.1E-03	n			
				1.0E-02	I			V		1			Dibromobenzene, 1,4-	106-37-6	7.8E+02	n	1.2E+04	n					1.3E+02	n		1.2E-01	n			
8.4E-02	I			2.0E-02	I			V		1		8.0E+02	Dibromochloromethane	124-48-1	8.3E+00	c	3.9E+01	c					8.7E-01	c	8.0E+01(F)	2.3E-04	c	2.1E-02		
2.0E+00	I	6.0E-04	I	9.0E-03	I	9.0E-03	I	V		1		1.3E+03	Dibromoethane, 1,2-	106-93-4	3.6E-02	c	1.6E-01	c	4.7E-03	c	2.0E-02	c	7.5E-03	c	5.0E-02	2.1E-06	c	1.4E-05		
						4.0E-03	X	V		1		2.8E+03	Dibromomethane (Methylene Bromide)	74-95-3	2.4E+01	n	9.9E+01	n	4.2E+00	n	1.8E+01	n	8.3E+00	n		2.1E-03	n			
				3.0E-04	P					1	0.1		Dibutyltin Compounds	NA	1.9E+01	n	2.5E+02	n					6.0E+00	n			n			
				3.0E-02	I					1	0.1		Dicamba	1918-00-9	1.9E+03	n	2.5E+04	n					5.7E+02	n		1.5E-01	n			
		4.2E-03	P					V		1		5.5E+02	Dichloro-2-butene, 1,4-	764-41-0	2.1E-03	c	9.4E-03	c	6.7E-04	c	2.9E-03	c	1.3E-03	c		6.6E-07	c			
		4.2E-03	P					V		1		5.2E+02	Dichloro-2-butene, cis-1,4-	1476-11-5	7.4E-03	c	3.2E-02	c	6.7E-04	c	2.9E-03	c	1.3E-03	c		6.2E-07	c			
		4.2E-03	P					V		1		7.6E+02	Dichloro-2-butene, trans-1,4-	110-57-6	7.4E-03	c	3.2E-02	c	6.7E-04	c	2.9E-03	c	1.3E-03	c		6.2E-07	c			
5.0E-02	I			4.0E-03	I					1	0.1		Dichloroacetic Acid	79-43-6	1.1E+01	c*	4.6E+01	c*					1.5E+00	c*	6.0E+01	3.1E-04	c*	1.2E-02		
				9.0E-02	I	2.0E-01	H	V		1		3.8E+02	Dichlorobenzene, 1,2-	95-50-1	1.8E+03	ns	9.3E+03	ns	2.1E+02	n	8.8E+02	n	3.0E+02	n	6.0E+02	3.0E-01	n	5.8E-01		
5.4E-03	C	1.1E-05	C	7.0E-02	A	8.0E-01	I	V		1			Dichlorobenzene, 1,4-	106-46-7	2.6E+00	c	1.1E+01	c	2.6E-01	c	1.1E+00	c	4.8E-01	c	7.5E+01	4.6E-04	c	7.2E-02		
4.5E-01	I	3.4E-04	C							1	0.1		Dichlorobenzidine, 3,3'-	91-94-1	1.2E+00	c	5.1E+00	c	8.3E-03	c	3.6E-02	c	1.3E-01	c		8.2E-04	c			
				9.0E-03	X					1	0.1		Dichlorobenzophenone, 4,4'-	90-98-2	5.7E+02	n	7.4E+03	n					7.8E+01	n		4.7E-01	n			
				2.0E-01	I	1.0E-01	X	V		1		8.5E+02	Dichlorodifluoromethane	75-71-8	8.7E+01	n	3.7E+02	n	1.0E+02	n	4.4E+02	n	2.0E+02	n		3.0E-01	n			
5.7E-03	C	1.6E-06	C	2.0E-01	P			V		1		1.7E+03	Dichloroethane, 1,1-	75-34-3	3.6E+00	c	1.6E+01	c	1.8E+00	c	7.7E+00	c	2.6E+00	c		7.8E-04	c			
9.1E-02	I	2.6E-05	I	6.0E-03	X	7.0E-03	P	V		1		3.0E+03	Dichloroethane, 1,2-	107-06-2	4.6E-01	c*	2.0E+00	c*	1.1E-01	c*	4.7E-01	c*	1.7E-01	c*	5.0E+00	4.8E-05	c*	1.4E-03		
				5.0E-02	I	2.0E-01	I	V		1		1.2E+03	Dichloroethylene, 1,1-	75-35-4	2.3E+02	n	1.0E+03	n	2.1E+02	n	8.8E+02	n	2.8E+02	n	7.0E+00	1.0E-01	n	2.5E-03		
				2.0E-03	I			V		1		2.4E+03	Dichloroethylene, 1,2-cis-	156-59-2	1.6E+02	n	2.3E+03	n					3.6E+01	n	7.0E+01	1.1E-02	n	2.1E-02		
				2.0E-02	I			V		1		1.9E+03	Dichloroethylene, 1,2-trans-	156-60-5	1.6E+03	n	2.3E+04	ns					3.6E+02	n	1.0E+02	1.1E-01	n	3.1E-02		
				3.0E-03	I					1	0.1		Dichlorophenol, 2,4-	120-83-2	1.9E+02	n	2.5E+03	n					4.6E+01	n		2.3E-02	n			
				1.0E-02	I					1	0.05		Dichlorophenoxy Acetic Acid, 2,4-	94-75-7	7.0E+02	n	9.6E+03	n					1.7E+02	n	7.0E+01	4.5E-02	n	1.6E-02		
				8.0E-03	I					1	0.1		Dichlorophenoxy)butyric Acid, 4-(2,4-	94-82-6	5.1E+02	n	6.6E+03	n					1.2E+02	n		1.1E-01	n			
3.6E-02	C	1.0E-05	C	9.0E-02	A	4.0E-03	I	V		1		1.4E+03	Dichloropropane, 1,2-	78-87-5	1.0E+00	c*	4.4E+00	c*	2.8E-01	c*	1.2E+00	c*	4.4E-01	c*	5.0E+00	1.5E-04	c*	1.7E-03		
				2.0E-02	P			V		1		1.5E+03	Dichloropropane, 1,3-	142-28-9	1.6E+03	ns	2.3E+04	ns					3.7E+02	n		1.3E-01	n			
				3.0E-03	I					1	0.1		Dichloropropanol, 2,3-	616-23-9	1.9E+02	n	2.5E+03	n					5.9E+01	n		1.3E-02	n			
1.0E-01	I	4.0E-06	I	3.0E-02	I	2.0E-02	I	V		1		1.6E+03	Dichloropropene, 1,3-	542-75-6	1.8E+00	c*	8.2E+00	c*	7.0E-01	c*	3.1E+00	c*	4.7E-01	c*		1.7E-04	c*			

TR=1E-0
THQ=1.0

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Toxicity and Chemical-specific Information													Contaminant		Screening Levels												Protection of Ground Water SSLs		
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	vol	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
2.9E-01	I	8.3E-05	C	5.0E-04	I	5.0E-04	I			1	0.1		Dichlorvos	62-73-7	1.9E+00	c*	7.9E+00	c*	3.4E-02	c*	1.5E-01	c*	2.6E-01	c*		8.1E-05	c*		
				1.0E-04	I					1	0.1		Dicrotophos	141-66-2	6.3E+00	n	8.2E+01	n					2.0E+00	n		4.7E-04	n		
				8.0E-02	P	3.0E-04	X	V		1		2.6E+02	Dicyclopentadiene	77-73-6	1.3E+00	n	5.4E+00	n	3.1E-01	n	1.3E+00	n	6.3E-01	n		2.2E-03	n		
1.6E+01	I	4.6E-03	I	5.0E-05	I					1	0.1		Dieldrin	60-57-1	3.4E-02	c*	1.4E-01	c	6.1E-04	c	2.7E-03	c	1.8E-03	c		7.1E-05	c		
		3.0E-04	C			5.0E-03	I			1	0.1		Diesel Engine Exhaust	NA					9.4E-03	c	4.1E-02	c							
				2.0E-03	P	2.0E-04	P			1	0.1		Diethanolamine	111-42-2	1.3E+02	n	1.6E+03	n	2.1E-01	n	8.8E-01	n	4.0E+01	n		8.1E-03	n		
				3.0E-02	P	1.0E-04	P			1	0.1		Diethylene Glycol Monobutyl Ether	112-34-5	1.9E+03	n	2.4E+04	n	1.0E-01	n	4.4E-01	n	6.0E+02	n		1.3E-01	n		
				6.0E-02	P	3.0E-04	P			1	0.1		Diethylene Glycol Monoethyl Ether	111-90-0	3.8E+03	n	4.8E+04	n	3.1E-01	n	1.3E+00	n	1.2E+03	n		2.4E-01	n		
				1.0E-03	P			V		1		1.1E+05	Diethylformamide	617-84-5	7.8E+01	n	1.2E+03	n					2.0E+01	n		4.1E-03	n		
3.5E+02	C	1.0E-01	C							1	0.1		Diethylstilbestrol	56-53-1	1.6E-03	c	6.6E-03	c	2.8E-05	c	1.2E-04	c	5.1E-05	c		2.6E-05	c		
				8.0E-02	I					1	0.1		Difenzoquat	43222-48-6	5.1E+03	n	6.6E+04	n					1.6E+03	n		2.5E+02	n		
				2.0E-02	I					1	0.1		Diflubenzuron	35367-38-5	1.3E+03	n	1.6E+04	n					2.9E+02	n		3.3E-01	n		
						4.0E+01	I	V		1		1.4E+03	Difluoroethane, 1,1-	75-37-6	4.8E+04	ns	2.0E+05	nms	4.2E+04	n	1.8E+05	n	8.3E+04	n		2.8E+01	n		
4.4E-02	C	1.3E-05	C					V		1			Dihydrosafrole	94-58-6	9.9E+00	c	4.5E+01	c	2.2E-01	c	9.4E-01	c	3.0E-01	c		1.9E-04	c		
						7.0E-01	P	V		1		2.3E+03	Diisopropyl Ether	108-20-3	2.2E+03	n	9.4E+03	ns	7.3E+02	n	3.1E+03	n	1.5E+03	n		3.7E-01	n		
				8.0E-02	I			V		1		5.3E+02	Diisopropyl Methylphosphonate	1445-75-6	6.3E+03	ns	9.3E+04	ns					1.6E+03	n		4.5E-01	n		
				2.0E-02	I					1	0.1		Dimethipin	55290-64-7	1.3E+03	n	1.6E+04	n					4.0E+02	n		8.8E-02	n		
				2.0E-04	I					1	0.1		Dimethoate	60-51-5	1.3E+01	n	1.6E+02	n					4.0E+00	n		9.0E-04	n		
1.6E+00	P									1	0.1		Dimethoxybenzidine, 3,3'-	119-90-4	3.4E-01	c	1.4E+00	c					4.7E-02	c		5.8E-05	c		
1.7E-03	P			6.0E-02	P					1	0.1		Dimethyl methylphosphonate	756-79-6	3.2E+02	c*	1.4E+03	c*					4.6E+01	c*		9.6E-03	c*		
4.6E+00	C	1.3E-03	C							1	0.1		Dimethylamino azobenzene [p-]	60-11-7	1.2E-01	c	5.0E-01	c	2.2E-03	c	9.4E-03	c	5.0E-03	c		2.1E-05	c		
5.8E-01	H									1	0.1		Dimethylaniline HCl, 2,4-	21436-96-4	9.4E-01	c	4.0E+00	c					1.3E-01	c		1.2E-04	c		
2.0E-01	P			2.0E-03	X					1	0.1		Dimethylaniline, 2,4-	95-68-1	2.7E+00	c*	1.1E+01	c					3.7E-01	c		2.1E-04	c		
				2.0E-03	I			V		1		8.3E+02	Dimethylaniline, N,N-	121-69-7	1.6E+02	n	2.3E+03	ns					3.5E+01	n		1.3E-02	n		
1.1E+01	P									1	0.1		Dimethylbenzidine, 3,3'-	119-93-7	4.9E-02	c	2.1E-01	c					6.5E-03	c		4.3E-05	c		
				1.0E-01	P	3.0E-02	I	V		1		1.1E+05	Dimethylformamide	68-12-2	2.6E+03	n	1.5E+04	n	3.1E+01	n	1.3E+02	n	6.1E+01	n		1.2E-02	n		
				1.0E-04	X	2.0E-06	X	V		1		1.7E+05	Dimethylhydrazine, 1,1-	57-14-7	5.7E-02	n	2.4E-01	n	2.1E-03	n	8.8E-03	n	4.2E-03	n		9.3E-07	n		
5.5E+02	C	1.6E-01	C					V		1		1.9E+05	Dimethylhydrazine, 1,2-	540-73-8	8.8E-04	c	4.1E-03	c	1.8E-05	c	7.7E-05	c	2.8E-05	c		6.5E-09	c		
				2.0E-02	I					1	0.1		Dimethylphenol, 2,4-	105-67-9	1.3E+03	n	1.6E+04	n					3.6E+02	n		4.2E-01	n		
				6.0E-04	I					1	0.1		Dimethylphenol, 2,6-	576-26-1	3.8E+01	n	4.9E+02	n					1.1E+01	n		1.3E-02	n		
				1.0E-03	I					1	0.1		Dimethylphenol, 3,4-	95-65-8	6.3E+01	n	8.2E+02	n					1.8E+01	n		2.1E-02	n		
4.5E-02	C	1.3E-05	C					V		1		4.7E+02	Dimethylvinylchloride	513-37-1	1.1E+00	c	4.8E+00	c	2.2E-01	c	9.4E-01	c	3.3E-01	c		1.1E-04	c		
				8.0E-05	X					1	0.1		Dinitro-o-cresol, 4,6-	534-52-1	5.1E+00	n	6.6E+01	n					1.5E+00	n		2.6E-03	n		
				2.0E-03	I					1	0.1		Dinitro-o-cyclohexyl Phenol, 4,6-	131-89-5	1.3E+02	n	1.6E+03	n					2.3E+01	n		7.7E-01	n		
				1.0E-04	P					1	0.1		Dinitrobenzene, 1,2-	528-29-0	6.3E+00	n	8.2E+01	n					1.9E+00	n		1.8E-03	n		
				1.0E-04	I					1	0.1		Dinitrobenzene, 1,3-	99-65-0	6.3E+00	n	8.2E+01	n					2.0E+00	n		1.8E-03	n		
				1.0E-04	P					1	0.1		Dinitrobenzene, 1,4-	100-25-4	6.3E+00	n	8.2E+01	n					2.0E+00	n		1.8E-03	n		
				2.0E-03	I					1	0.1		Dinitrophenol, 2,4-	51-28-5	1.3E+02	n	1.6E+03	n					3.9E+01	n		4.4E-02	n		
6.8E-01	I									1	0.1		Dinitrotoluene Mixture, 2,4/2,6-	NA	8.0E-01	c	3.4E+00	c					1.1E-01	c		1.5E-04	c		
3.1E-01	C	8.9E-05	C	2.0E-03	I					1	0.102		Dinitrotoluene, 2,4-	121-14-2	1.7E+00	c*	7.4E+00	c	3.2E-02	c	1.4E-01	c	2.4E-01	c		3.2E-04	c		
1.5E+00	P			3.0E-04	X					1	0.099		Dinitrotoluene, 2,6-	606-20-2	3.6E-01	c*	1.5E+00	c					4.9E-02	c		6.7E-05	c		
				2.0E-03	S					1	0.006		Dinitrotoluene, 2-Amino-4,6-	35572-78-2	1.5E+02	n	2.3E+03	n					3.9E+01	n		3.0E-02	n		
				2.0E-03	S					1	0.009		Dinitrotoluene, 4-Amino-2,6-	19406-51-0	1.5E+02	n	2.3E+03	n					3.9E+01	n		3.0E-02	n		
4.5E-01	X			9.0E-04	X					1	0.1		Dinitrotoluene, Technical grade	25321-14-6	1.2E+00	c*	5.1E+00	c					1.0E-01	c		1.4E-04	c		
				1.0E-03	I					1	0.1		Dinoseb	88-85-7	6.3E+01	n	8.2E+02	n					1.5E+01	n	7.0E+00	1.3E-01	n	6.2E-02	
1.0E-01	I	5.0E-06	I	3.0E-02	I	3.0E-02	I	V		1		1.2E+05	Dioxane, 1,4-	123-91-1	5.3E+00	c	2.4E+01	c	5.6E-01	c*	2.5E+00	c*	4.6E-01	c		9.4E-05	c		
													Dioxins																	
6.2E+03	I	1.3E+00	I							1	0.03		~Hexachlorodibenzo-p-dioxin, Mixture	NA	1.0E-04	c	4.7E-04	c	2.2E-06	c	9.4E-06	c	1.3E-05	c		1.7E-05	c		
1.3E+05	C	3.8E+01	C	7.0E-10	I	4.0E-08	C	V		1	0.03		~TCDD, 2,3,7,8-	1746-01-6	4.8E-06	c*	2.2E-05	c*	7.4E-08	c	3.2E-07	c	1.2E-07	c	3.0E-05	5.9E-08	c	1.5E-05	
				3.0E-02	I					1	0.1		Diphenamid	957-51-7	1.9E+03	n	2.5E+04	n					5.3E+02	n		5.2E+00	n		
				8.0E-04	X					1	0.1		Diphenyl Sulfone	127-63-9	5.1E+01	n	6.6E+02	n					1.5E+01	n		3.6E-02	n		
				2.5E-02	I					1	0.1		Diphenylamine	122-39-4	1.6E+03	n	2.1E+04	n					3.1E+02	n		5.8E-01	n		
8.0E-01	I	2.2E-04	I							1	0.1		Diphenylhydrazine, 1,2-	122-66-7	6.8E-01	c	2.9E+00	c	1.3E-02	c	5.6E-02	c	7.8E-02	c		2.5E-04	c		
				2.2E-03	I					1	0.1		Diquat	85-00-7	1.4E+02	n	1.8E+03	n					4.4E+01	n	2.0E+01	8.3E-01	n	3.7E-01	
7.1E+00	C	1.4E-01	C							1	0.1		Direct Black 38	1937-37-7	7.6E-02	c	3.2E-01	c	2.0E-05	c	8.8E-05	c	1.1E-02	c		5.3E+00	c		
7.4E+00	C	1.4E-01	C							1	0.1		Direct Blue 6	2602-46-2	7.3E-02	c	3.1E-01	c	2.0E-05	c	8.8E-05	c	1.1E-02	c		1.7E+01	c		
6.7E+00	C	1.4E-01	C							1	0.1		Direct Brown 95	16071-86-6	8.1E-02	c	3.4E-01	c	2.0E-05	c	8.8E-05	c	1.2E-02	c		1.6E-01	c		
				4.0E-05	I					1	0.1		Disulfoton	298-04-4	2.5E+00	n	3.3E+01	n					5.0E-01	n		9.4E-04	n		
				1.0E-02	I			V		1			Dithiane, 1,4-	505-29-3	7.8E+02	n	1.2E+04	n					2.0E+02	n		9.7E-02	n		
				2.0E-03	I					1	0.1		Diuron	330-54-1	1.3E+02	n	1.6E+03	n					3.6E+01	n		1.5E-02	n		
				4.0E-03	I					1	0.1		Dodine	2439-10-3	2.5E+02	n	3.3E+03	n					8.0E+01	n		4.1E-01	n		
				2.5E-02	I			V		1			EPTC	759-94-4	2.0E+03	n	2.9E+04	n					3.8E+02	n		2.0E-01	n		
				6.0E-03	I			V		1			Endosulfan	115-29-7	4.7E+02	n	7.0E+03	n					1.0E+02	n		1.4E+00	n		
				2.0E-02	I					1	0.1		Endothall	145-73-3	1.3E+03	n	1.6E+04	n					3.8E+02	n	1.0E+02	9.1E-02	n	2.4E-02	
				3.0E-04	I					1	0.1		Endrin	72-20-8	1.9E+01	n	2.5E+02	n					2.3E+00	n	2.0E+00	9.2E-02	n	8.1E-02	
9.9E-03	I	1.2E-06	I	6.0E-03	P	1.0E-03	I	V		1		1.1E+04	Epichlorohydrin	106-89-8	1.9E+01	n	8.2E+01	n	1.0E+00	n	4.4E+00	n	2.0E+00	n		4.5E-04	n		
						2.0E-02	I	V		1		1.5E+04	Epoxybutane, 1,2-	106-88-7	1.6E+02	n	6.7E+02	n	2.1E+01	n	8.8E+01	n	4.2E+01	n		9.2E-03	n		
				4.0E-02	P					1	0.1		Ethanol, 2-(2-methoxyethoxy)-	111-77-3	2.5E+03	n	3.3E+04	n					8.0E+02	n		1.6E-01	n		
				5.0E-03	I					1	0.1		Ethephon	16672-87-0	3.2E+02	n	4.1E+03	n					1.0E+02	n		2.1E-02	n		
				5.0E-04	I					1	0.1		Ethion	563-12-2	3.2E+01	n	4.1E+02	n					4.3E+00	n		8.5E-03	n		
				1.0E-01	P	6.0E-02	P	V		1		2.4E+04	Ethoxyethanol Acetate, 2-	111-15-9	2.6E+03	n	1.4E+04	n	6.3E+01	n	2.6E+02	n	1.2E+02	n		2.5E-02	n		
				9.0E-02	P	2.0E-01	I	V		1		1.1E+05	Ethoxyethanol, 2-	110-80-5	5.2E+03	n	4.7E+04	n	2.1E+02	n	8.8E+02	n	3.4E+02	n		6.8E-02	n		
				9.0E-01	I	7.0E-02	P	V		1		1.1E+04	Ethyl Acetate	141-78-6	6.2E+02	n	2.6E+03	n	7.3E+01	n	3.1E+02	n	1.4E+02	n		3.1E-02	n		
				5.0E-03	P	8.0E-03	P	V		1		2.5E+03	Ethyl Acrylate	140-88-5	4.7E+01	n	2.1E+02	n	8.3E+00	n	3.5E+01	n	1.4E+01	n		3.2E-03	n		
						1.0E+01	I	V		1		2.1E+03	Ethyl Chloride (Chloroethane)	75-00-3	1.4E+04	ns	5.7E+04	ns	1.0E+04	n	4.4E+04	n	2.1E+04	n		5.9E+00	n		
				2.0E-01	I			V		1		1.0E+04	Ethyl Ether	60-29-7	1.6E+04	ns	2.3E+05	nms					3.9E+03	n		8.8E-01	n		

TR=1E-06
HQ=1.0

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Toxicity and Chemical-specific Information													Contaminant		Screening Levels												Protection of Ground Water SSLs		
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD$_o$ (mg/kg-day)	key	RfC$_i$ (mg/m^3)	key	volatile	muta-gen	GIABS	ABS	C$_{sat}$ (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
						3.0E-01	P	V		1		1.1E+03	Ethyl Methacrylate	97-63-2	1.8E+03	ns	7.6E+03	ns	3.1E+02	n	1.3E+03	n	6.3E+02	n		1.5E-01	n		
				1.0E-05	I					1	0.1		Ethyl-p-nitrophenyl Phosphonate	2104-64-5	6.3E-01	n	8.2E+00	n					8.9E-02	n		2.8E-03	n		
1.1E-02	C	2.5E-06	C	1.0E-01	I	1.0E+00	I	V		1		4.8E+02	Ethylbenzene	100-41-4	5.8E+00	c	2.5E+01	c	1.1E+00	c	4.9E+00	c	1.5E+00	c	7.0E+02	1.7E-03	c	7.8E-01	
				7.0E-02	P					1	0.1		Ethylene Cyanohydrin	109-78-4	4.4E+03	n	5.7E+04	n					1.4E+03	n		2.8E-01	n		
				9.0E-02	P			V		1		1.9E+05	Ethylene Diamine	107-15-3	7.0E+03	n	1.1E+05	nm					1.8E+03	n		4.1E-01	n		
				2.0E+00	I	4.0E-01	C			1	0.1		Ethylene Glycol	107-21-1	1.3E+05	nm	1.6E+06	nm	4.2E+02	n	1.8E+03	n	4.0E+04	n		8.1E+00	n		
				1.0E-01	I	1.6E+00	I			1	0.1		Ethylene Glycol Monobutyl Ether	111-76-2	6.3E+03	n	8.2E+04	n	1.7E+03	n	7.0E+03	n	2.0E+03	n		4.1E-01	n		
3.1E-01	C	8.8E-05	C			3.0E-02	C	V		1		1.2E+05	Ethylene Oxide	75-21-8	1.8E-01	c	7.9E-01	c	3.2E-02	c	1.4E-01	c	5.1E-02	c		1.1E-05	c		
4.5E-02	C	1.3E-05	C	8.0E-05	I					1	0.1		Ethylene Thiourea	96-45-7	5.1E+00	n	5.1E+01	c**	2.2E-01	c	9.4E-01	c	1.6E+00	n		3.6E-04	n		
6.5E+01	C	1.9E-02	C					V		1		1.5E+05	Ethyleneimine	151-56-4	2.7E-03	c	1.2E-02	c	1.5E-04	c	6.5E-04	c	2.4E-04	c		5.2E-08	c		
				3.0E+00	I					1	0.1		Ethylphthalyl Ethyl Glycolate	84-72-0	1.9E+05	nm	2.5E+06	nm					5.8E+04	n		1.3E+02	n		
				2.5E-04	I					1	0.1		Fenamiphos	22224-92-6	1.6E+01	n	2.1E+02	n					4.4E+00	n		4.3E-03	n		
				2.5E-02	I					1	0.1		Fenpropathrin	39515-41-8	1.6E+03	n	2.1E+04	n					6.4E+01	n		2.9E+00	n		
				2.5E-02	I					1	0.1		Fenvalerate	51630-58-1	1.6E+03	n	2.1E+04	n					5.0E+02	n		3.2E+02	n		
				1.3E-02	I					1	0.1		Fluometuron	2164-17-2	8.2E+02	n	1.1E+04	n					2.4E+02	n		1.9E-01	n		
				4.0E-02	C	1.3E-02	C			1			Fluoride	16984-48-8	3.1E+03	n	4.7E+04	n	1.4E+01	n	5.7E+01	n	8.0E+02	n		1.2E+02	n		
				6.0E-02	I	1.3E-02	C			1			Fluorine (Soluble Fluoride)	7782-41-4	4.7E+03	n	7.0E+04	n	1.4E+01	n	5.7E+01	n	1.2E+03	n	4.0E+03	1.8E+02	n	6.0E+02	
				8.0E-02	I					1	0.1		Fluridone	59756-60-4	5.1E+03	n	6.6E+04	n					1.4E+03	n		1.6E+02	n		
				2.0E-02	I					1	0.1		Flurprimidol	56425-91-3	1.3E+03	n	1.6E+04	n					3.4E+02	n		1.6E+00	n		
				7.0E-04	I					1	0.1		Flusilazole	85509-19-9	4.4E+01	n	5.7E+02	n					1.1E+01	n		1.8E+00	n		
				6.0E-02	I					1	0.1		Flutolanil	66332-96-5	3.8E+03	n	4.9E+04	n					9.5E+02	n		5.0E+00	n		
				1.0E-02	I					1	0.1		Fluvalinate	69409-94-5	6.3E+02	n	8.2E+03	n					2.0E+02	n		2.9E+02	n		
3.5E-03	I			1.0E-01	I					1	0.1		Folpet	133-07-3	1.6E+02	c*	6.6E+02	c					2.0E+01	c*		4.7E-03	c*		
1.9E-01	I									1	0.1		Fomesafen	72178-02-0	2.9E+00	c	1.2E+01	c					3.9E-01	c		1.3E-03	c		
				2.0E-03	I					1	0.1		Fonofos	944-22-9	1.3E+02	n	1.6E+03	n					2.4E+01	n		4.7E-02	n		
		1.3E-05	I	2.0E-01	I	9.8E-03	A	V		1		4.2E+04	Formaldehyde	50-00-0	1.7E+01	c*	7.3E+01	c*	2.2E-01	c*	9.4E-01	c*	4.3E-01	c*		8.7E-05	c*		
				9.0E-01	P	3.0E-04	X	V		1		1.1E+05	Formic Acid	64-18-6	2.9E+01	n	1.2E+02	n	3.1E-01	n	1.3E+00	n	6.3E-01	n		1.3E-04	n		
				3.0E+00	I					1	0.1		Fosetyl-AL	39148-24-8	1.9E+05	nm	2.5E+06	nm					6.0E+04	n		7.9E+02	n		
													Furans																	
				1.0E-03	X			V		1	0.03		~Dibenzofuran	132-64-9	7.3E+01	n	1.0E+03	n					7.9E+00	n		1.5E-01	n		
				1.0E-03	I			V		1	0.03	6.2E+03	~Furan	110-00-9	7.3E+01	n	1.0E+03	n					1.9E+01	n		7.3E-03	n		
				9.0E-01	I	2.0E+00	I	V		1	0.03	1.7E+05	~Tetrahydrofuran	109-99-9	1.8E+04	n	9.4E+04	n	2.1E+03	n	8.8E+03	n	3.4E+03	n		7.5E-01	n		
3.8E+00	H									1	0.1		Furazolidone	67-45-8	1.4E-01	c	6.0E-01	c					2.0E-02	c		3.9E-05	c		
				3.0E-03	I	5.0E-02	H	V		1		1.0E+04	Furfural	98-01-1	2.1E+02	n	2.6E+03	n	5.2E+01	n	2.2E+02	n	3.8E+01	n		8.1E-03	n		
1.5E+00	C	4.3E-04	C							1	0.1		Furium	531-82-8	3.6E-01	c	1.5E+00	c	6.5E-03	c	2.9E-02	c	5.1E-02	c		6.8E-05	c		
3.0E-02	I	8.6E-06	C							1	0.1		Furmecyclox	60568-05-0	1.8E+01	c	7.7E+01	c	3.3E-01	c	1.4E+00	c	1.1E+00	c		1.2E-03	c		
				4.0E-04	I					1	0.1		Glufosinate, Ammonium	77182-82-2	2.5E+01	n	3.3E+02	n					8.0E+00	n		1.8E-03	n		
						8.0E-05	C			1	0.1		Glutaraldehyde	111-30-8	1.1E+05	nm	4.8E+05	nm	8.3E-02	n	3.5E-01	n							
				4.0E-04	I	1.0E-03	H	V		1		1.1E+05	Glycidyl	765-34-4	2.3E+01	n	2.1E+02	n	1.0E+00	n	4.4E+00	n	1.7E+00	n		3.3E-04	n		
				1.0E-01	I					1	0.1		Glyphosate	1071-83-6	6.3E+03	n	8.2E+04	n					2.0E+03	n	7.0E+02	8.8E+00	n	3.1E+00	
				1.0E-02	X			V		1			Guanidine	113-00-8	7.8E+02	n	1.2E+04	n					2.0E+02	n		4.5E-02	n		
				2.0E-02	P					1	0.1		Guanidine Chloride	50-01-1	1.3E+03	n	1.6E+04	n					4.0E+02	n			n		
				5.0E-05	I					1	0.1		Haloxyfop, Methyl	69806-40-2	3.2E+00	n	4.1E+01	n					7.6E-01	n		8.4E-03	n		
4.5E+00	I	1.3E-03	I	5.0E-04	I			V		1			Heptachlor	76-44-8	1.3E-01	c	6.3E-01	c	2.2E-03	c	9.4E-03	c	1.4E-03	c	4.0E-01	1.2E-04	c	3.3E-02	
9.1E+00	I	2.6E-03	I	1.3E-05	I			V		1			Heptachlor Epoxide	1024-57-3	7.0E-02	c*	3.3E-01	c*	1.1E-03	c	4.7E-03	c	1.4E-03	c*	2.0E-01	2.8E-05	c*	4.1E-03	
				2.0E-03	I			V		1			Hexabromobenzene	87-82-1	1.6E+02	n	2.3E+03	n					4.0E+01	n		2.3E-01	n		
				2.0E-04	I					1	0.1		Hexabromodiphenyl ether, 2,2',4,4',5,5'- (BDE-153)	68631-49-2	1.3E+01	n	1.6E+02	n					4.0E+00	n			n		
1.6E+00	I	4.6E-04	I	8.0E-04	I			V		1			Hexachlorobenzene	118-74-1	2.1E-01	c	9.6E-01	c	6.1E-03	c	2.7E-02	c	9.8E-03	c	1.0E+00	1.2E-04	c	1.3E-02	
7.8E-02	I	2.2E-05	I	1.0E-03	P			V		1		1.7E+01	Hexachlorobutadiene	87-68-3	1.2E+00	c*	5.3E+00	c	1.3E-01	c	5.6E-01	c	1.4E-01	c*		2.7E-04	c*		
6.3E+00	I	1.8E-03	I	8.0E-03	A					1	0.1		Hexachlorocyclohexane, Alpha-	319-84-6	8.6E-02	c	3.6E-01	c	1.6E-03	c	6.8E-03	c	7.2E-03	c		4.2E-05	c		
1.8E+00	I	5.3E-04	I							1	0.1		Hexachlorocyclohexane, Beta-	319-85-7	3.0E-01	c	1.3E+00	c	5.3E-03	c	2.3E-02	c	2.5E-02	c		1.5E-04	c		
1.1E+00	C	3.1E-04	C	3.0E-04	I					1	0.04		Hexachlorocyclohexane, Gamma- (Lindane)	58-89-9	5.7E-01	c*	2.5E+00	c	9.1E-03	c	4.0E-02	c	4.2E-02	c*	2.0E-01	2.4E-04	c*	1.2E-03	
1.8E+00	I	5.1E-04	I							1	0.1		Hexachlorocyclohexane, Technical	608-73-1	3.0E-01	c	1.3E+00	c	5.5E-03	c	2.4E-02	c	2.5E-02	c		1.5E-04	c		
				6.0E-03	I	2.0E-04	I	V		1		1.6E+01	Hexachlorocyclopentadiene	77-47-4	1.8E+00	n	7.5E+00	n	2.1E-01	n	8.8E-01	n	4.1E-01	n	5.0E+01	1.3E-03	n	1.6E-01	
4.0E-02	I	1.1E-05	C	7.0E-04	I	3.0E-02	I	V		1			Hexachloroethane	67-72-1	1.8E+00	c*	8.0E+00	c*	2.6E-01	c	1.1E+00	c	3.3E-01	c*		2.0E-04	c*		
				3.0E-04	I					1	0.1		Hexachlorophene	70-30-4	1.9E+01	n	2.5E+02	n					6.0E+00	n		8.0E+00	n		
1.1E-01	I			3.0E-03	I					1	0.015		Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	6.1E+00	c*	2.8E+01	c					7.0E-01	c*		2.7E-04	c*		
						1.0E-05	I	V		1		3.4E+03	Hexamethylene Diisocyanate, 1,6-	822-06-0	3.1E+00	n	1.3E+01	n	1.0E-02	n	4.4E-02	n	2.1E-02	n		2.1E-04	n		
				4.0E-04	P					1	0.1		Hexamethylphosphoramide	680-31-9	2.5E+01	n	3.3E+02	n					8.0E+00	n		1.8E-03	n		
						7.0E-01	I	V		1		1.4E+02	Hexane, N-	110-54-3	6.1E+02	ns	2.5E+03	ns	7.3E+02	n	3.1E+03	n	1.5E+03	n		1.0E+01	n		
				2.0E+00	P					1	0.1		Hexanedioic Acid	124-04-9	1.3E+05	nm	1.6E+06	nm					4.0E+04	n		9.9E+00	n		
				5.0E-03	I	3.0E-02	I	V		1		3.3E+03	Hexanone, 2-	591-78-6	2.0E+02	n	1.3E+03	n	3.1E+01	n	1.3E+02	n	3.8E+01	n		8.8E-03	n		
				3.3E-02	I					1	0.1		Hexazinone	51235-04-2	2.1E+03	n	2.7E+04	n					6.4E+02	n		3.0E-01	n		
				2.5E-02	I					1	0.1		Hexythiazox	78587-05-0	1.6E+03	n	2.1E+04	n					1.1E+02	n		5.0E-01	n		
				3.0E-04	I					1	0.1		Hydramethylnon	67485-29-4	1.9E+01	n	2.5E+02	n					5.9E+00	n		2.1E+03	n		
3.0E+00	I	4.9E-03	I			3.0E-05	P	V		1			Hydrazine	302-01-2	2.3E-01	c	1.1E+00	c	5.7E-04	c*	2.5E-03	c*	1.1E-03	c*			c*		
3.0E+00	I	4.9E-03	I							1			Hydrazine Sulfate	10034-93-2	2.3E-01	c	1.1E+00	c	5.7E-04	c	2.5E-03	c	2.6E-02	c			c		
						2.0E-02	I	V		1			Hydrogen Chloride	7647-01-0	2.8E+07	nm	1.2E+08	nm	2.1E+01	n	8.8E+01	n	4.2E+01	n			n		
				4.0E-02	C	1.4E-02	C	V		1			Hydrogen Fluoride	7664-39-3	3.1E+03	n	4.7E+04	n	1.5E+01	n	6.1E+01	n	2.8E+01	n			n		
						2.0E-03	I	V		1			Hydrogen Sulfide	7783-06-4	2.8E+06	nm	1.2E+07	nm	2.1E+00	n	8.8E+00	n	4.2E+00	n			n		
6.0E-02	P			4.0E-02	P					1	0.1		Hydroquinone	123-31-9	9.0E+00	c	3.8E+01	c					1.3E+00	c		8.7E-04	c		
				1.3E-02	I					1	0.1		Imazalil	35554-44-0	8.2E+02	n	1.1E+04	n					1.9E+02	n		3.2E+00	n		
				2.5E-01	I					1	0.1		Imazaquin	81335-37-7	1.6E+04	n	2.1E+05	nm					4.9E+03	n		2.4E+01	n		
				2.5E-01	I					1	0.1		Imazethapyr	81335-77-5	1.6E+04	n	2.1E+05	nm					4.7E+03	n		4.1E+00	n		
				1.0E-02	A					1			Iodine	7553-56-2	7.8E+02	n	1.2E+04	n					2.0E+02	n		1.2E+01	n		
				4.0E-02	I					1	0.1		Iprodione	36734-19-7	2.5E+03	n	3.3E+04	n					7.4E+02	n		2.2E-01	n		

TR=1E-0
THQ=1.0

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Toxicity and Chemical-specific Information												Contaminant		Screening Levels												Protection of Ground Water SSLs		
SFO (mg/kg-day)$^{-1}$	key	IUR (μg/m^3)$^{-1}$	key	RfD$_o$ (mg/kg-day)	key	RfC$_i$ (mg/m^3)	key	volatile	mutagen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (μg/m^3)	key	Industrial Air (μg/m^3)	key	Tapwater (μg/L)	key	MCL (μg/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
				7.0E-01	P					1			Iron	7439-89-6	5.5E+04	n	8.2E+05	nm					1.4E+04	n		3.5E+02	n	
				3.0E-01	I			V		1		1.0E+04	Isobutyl Alcohol	78-83-1	2.3E+04	ns	3.5E+05	nms					5.9E+03	n		1.2E+00	n	
9.5E-04	I			2.0E-01	I	2.0E+00	C			1	0.1		Isophorone	78-59-1	5.7E+02	c*	2.4E+03	c*	2.1E+03	n	8.8E+03	n	7.8E+01	c*		2.6E-02	c*	
				1.5E-02	I			V		1			Isopropalin	33820-53-0	1.2E+03	n	1.8E+04	n					4.0E+01	n		9.2E-01	n	
				2.0E+00	P	2.0E-01	P	V		1		1.1E+05	Isopropanol	67-63-0	5.6E+03	n	2.4E+04	n	2.1E+02	n	8.8E+02	n	4.1E+02	n		8.4E-02	n	
				1.0E-01	I					1	0.1		Isopropyl Methyl Phosphonic Acid	1832-54-8	6.3E+03	n	8.2E+04	n					2.0E+03	n		4.3E-01	n	
				5.0E-02	I					1	0.1		Isoxaben	82558-50-7	3.2E+03	n	4.1E+04	n					7.3E+02	n		2.0E+00	n	
						3.0E-01	A	V		1			JP-7	NA	4.3E+08	nm	1.8E+09	nm	3.1E+02	n	1.3E+03	n	6.3E+02	n			n	
				2.0E-03	I					1	0.1		Lactofen	77501-63-4	1.3E+02	n	1.6E+03	n					2.5E+01	n		1.2E+00	n	
													Lead Compounds															
5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C		M	0.025			~Lead Chromate	7758-97-6	3.0E-01	c	6.2E+00	c	6.8E-06	c	8.2E-05	c	4.1E-02	c			c	
8.5E-03	C	1.2E-05	C							1			~Lead Phosphate	7446-27-7	8.2E+01	c	3.8E+02	c	2.3E-01	c	1.0E+00	c	9.1E+00	c			c	
8.5E-03	C	1.2E-05	C							1	0.1		~Lead acetate	301-04-2	6.4E+01	c	2.7E+02	c	2.3E-01	c	1.0E+00	c	9.2E+00	c		1.8E-03	c	
										1			~Lead and Compounds	7439-92-1	4.0E+02	L	8.0E+02	L	1.5E-01	L			1.5E+01	L	1.5E+01		L	1.4E+01
8.5E-03	C	1.2E-05	C							1	0.1		~Lead subacetate	1335-32-6	6.4E+01	c	2.7E+02	c	2.3E-01	c	1.0E+00	c	9.2E+00	c		2.0E-03	c	
				1.0E-07	I			V		1		2.4E+00	~Tetraethyl Lead	78-00-2	7.8E-03	n	1.2E-01	n					1.3E-03	n		4.7E-06	n	
				5.0E-06	P			V		1		3.8E+02	Lewisite	541-25-3	3.9E-01	n	5.8E+00	n					9.0E-02	n		3.8E-05	n	
				2.0E-03	I					1	0.1		Linuron	330-55-2	1.3E+02	n	1.6E+03	n					3.3E+01	n		2.9E-02	n	
				2.0E-03	P					1			Lithium	7439-93-2	1.6E+02	n	2.3E+03	n					4.0E+01	n		1.2E+01	n	
				5.0E-04	I					1	0.1		MCPA	94-74-6	3.2E+01	n	4.1E+02	n					7.5E+00	n		2.0E-03	n	
				1.0E-02	I					1	0.1		MCPB	94-81-5	6.3E+02	n	8.2E+03	n					1.5E+02	n		5.8E-02	n	
				1.0E-03	I					1	0.1		MCPP	93-65-2	6.3E+01	n	8.2E+02	n					1.6E+01	n		4.7E-03	n	
				2.0E-02	I					1	0.1		Malathion	121-75-5	1.3E+03	n	1.6E+04	n					3.9E+02	n		1.0E-01	n	
				1.0E-01	I	7.0E-04	C			1	0.1		Maleic Anhydride	108-31-6	6.3E+03	n	8.0E+04	n	7.3E-01	n	3.1E+00	n	1.9E+03	n		3.8E-01	n	
				5.0E-01	I					1	0.1		Maleic Hydrazide	123-33-1	3.2E+04	n	4.1E+05	nm					1.0E+04	n		2.1E+00	n	
				1.0E-04	P					1	0.1		Malononitrile	109-77-3	6.3E+00	n	8.2E+01	n					2.0E+00	n		4.1E-04	n	
				3.0E-02	H					1	0.1		Mancozeb	8018-01-7	1.9E+03	n	2.5E+04	n					5.4E+02	n		7.6E-01	n	
				5.0E-03	I					1	0.1		Maneb	12427-38-2	3.2E+02	n	4.1E+03	n					9.8E+01	n		1.4E-01	n	
				1.4E-01	I	5.0E-05	I			1			Manganese (Diet)	7439-96-5														
				2.4E-02	S	5.0E-05	I			0.04			Manganese (Non-diet)	7439-96-5	1.8E+03	n	2.6E+04	n	5.2E-02	n	2.2E-01	n	4.3E+02	n		2.8E+01	n	
				9.0E-05	H					1	0.1		Mephosfolan	950-10-7	5.7E+00	n	7.4E+01	n					1.8E+00	n		2.6E-03	n	
				3.0E-02	I					1	0.1		Mepiquat Chloride	24307-26-4	1.9E+03	n	2.5E+04	n					6.0E+02	n		2.0E-01	n	
													Mercury Compounds															
				3.0E-04	I	3.0E-04	S			0.07			~Mercuric Chloride (and other Mercury salts)	7487-94-7	2.3E+01	n	3.5E+02	n	3.1E-01	n	1.3E+00	n	5.7E+00	n	2.0E+00		n	
						3.0E-04	I	V		1		3.1E+00	~Mercury (elemental)	7439-97-6	1.1E+01	ns	4.6E+01	ns	3.1E-01	n	1.3E+00	n	6.3E-01	n	2.0E+00	3.3E-02	n	1.0E-01
				1.0E-04	I					1			~Methyl Mercury	22967-92-6	7.8E+00	n	1.2E+02	n					2.0E+00	n			n	
				8.0E-05	I					1	0.1		~Phenylmercuric Acetate	62-38-4	5.1E+00	n	6.6E+01	n					1.6E+00	n		5.0E-04	n	
				3.0E-05	I			V		1			Merphos	150-50-5	2.3E+00	n	3.5E+01	n					6.0E-01	n		5.9E-02	n	
				3.0E-05	I					1	0.1		Merphos Oxide	78-48-8	1.9E+00	n	2.5E+01	n					8.5E-02	n		4.2E-04	n	
				6.0E-02	I					1	0.1		Metalaxyl	57837-19-1	3.8E+03	n	4.9E+04	n					1.2E+03	n		3.3E-01	n	
				1.0E-04	I	3.0E-02	P	V		1		4.6E+03	Methacrylonitrile	126-98-7	7.5E+00	n	1.0E+02	n	3.1E+01	n	1.3E+02	n	1.9E+00	n		4.3E-04	n	
				5.0E-05	I					1	0.1		Methamidophos	10265-92-6	3.2E+00	n	4.1E+01	n					1.0E+00	n		2.1E-04	n	
				2.0E+00	I	2.0E+01	I	V		1		1.1E+05	Methanol	67-56-1	1.2E+05	nms	1.2E+06	nms	2.1E+04	n	8.8E+04	n	2.0E+04	n		4.1E+00	n	
				1.0E-03	I					1	0.1		Methidathion	950-37-8	6.3E+01	n	8.2E+02	n					1.9E+01	n		4.7E-03	n	
				2.5E-02	I					1	0.1		Methomyl	16752-77-5	1.6E+03	n	2.1E+04	n					5.0E+02	n		1.1E-01	n	
4.9E-02	C	1.4E-05	C							1	0.1		Methoxy-5-nitroaniline, 2-	99-59-2	1.1E+01	c	4.7E+01	c	2.0E-01	c	8.8E-01	c	1.5E+00	c		5.3E-04	c	
				5.0E-03	I					1	0.1		Methoxychlor	72-43-5	3.2E+02	n	4.1E+03	n					3.7E+01	n	4.0E+01	2.0E+00	n	2.2E+00
				8.0E-03	P	1.0E-03	P	V		1		1.2E+05	Methoxyethanol Acetate, 2-	110-49-6	1.1E+02	n	5.1E+02	n	1.0E+00	n	4.4E+00	n	2.1E+00	n		4.2E-04	n	
				5.0E-03	P	2.0E-02	I	V		1		1.1E+05	Methoxyethanol, 2-	109-86-4	3.3E+02	n	3.5E+03	n	2.1E+01	n	8.8E+01	n	2.9E+01	n		5.9E-03	n	
				1.0E+00	X			V		1		2.9E+04	Methyl Acetate	79-20-9	7.8E+04	ns	1.2E+06	nms					2.0E+04	n		4.1E+00	n	
						2.0E-02	P	V		1		6.8E+03	Methyl Acrylate	96-33-3	1.5E+02	n	6.1E+02	n	2.1E+01	n	8.8E+01	n	4.2E+01	n		8.9E-03	n	
				6.0E-01	I	5.0E+00	I	V		1		2.8E+04	Methyl Ethyl Ketone (2-Butanone)	78-93-3	2.7E+04	n	1.9E+05	nms	5.2E+03	n	2.2E+04	n	5.6E+03	n		1.2E+00	n	
		1.0E-03	X	1.0E-03	P	2.0E-05	X	V		1		1.8E+05	Methyl Hydrazine	60-34-4	1.4E-01	c**	6.2E-01	c**	2.8E-03	c**	1.2E-02	c**	5.6E-03	c**		1.3E-06	c**	
						3.0E+00	I	V		1		3.4E+03	Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	3.3E+04	ns	1.4E+05	nms	3.1E+03	n	1.3E+04	n	6.3E+03	n		1.4E+00	n	
						1.0E-03	C	V		1		1.0E+04	Methyl Isocyanate	624-83-9	4.6E+00	n	1.9E+01	n	1.0E+00	n	4.4E+00	n	2.1E+00	n		5.9E-04	n	
				1.4E+00	I	7.0E-01	I	V		1		2.4E+03	Methyl Methacrylate	80-62-6	4.4E+03	ns	1.9E+04	ns	7.3E+02	n	3.1E+03	n	1.4E+03	n		3.0E-01	n	
				2.5E-04	I					1	0.1		Methyl Parathion	298-00-0	1.6E+01	n	2.1E+02	n					4.5E+00	n		7.4E-03	n	
				6.0E-02	X					1	0.1		Methyl Phosphonic Acid	993-13-5	3.8E+03	n	4.9E+04	n					1.2E+03	n		2.4E-01	n	
				6.0E-03	H	4.0E-02	H	V		1		3.9E+02	Methyl Styrene (Mixed Isomers)	25013-15-4	3.2E+02	n	2.6E+03	ns	4.2E+01	n	1.8E+02	n	2.3E+01	n		3.9E-02	n	
9.9E-02	C	2.8E-05	C							1	0.1		Methyl methanesulfonate	66-27-3	5.5E+00	c	2.3E+01	c	1.0E-01	c	4.4E-01	c	7.9E-01	c		1.6E-04	c	
1.8E-03	C	2.6E-07	C			3.0E+00	I	V		1		8.9E+03	Methyl tert-Butyl Ether (MTBE)	1634-04-4	4.7E+01	c	2.1E+02	c	1.1E+01	c	4.7E+01	c	1.4E+01	c		3.2E-03	c	
				3.0E-04	X					1	0.1		Methyl-1,4-benzenediamine dihydrochloride, 2-	615-45-2	1.9E+01	n	2.5E+02	n					6.0E+00	n		3.6E-03	n	
9.0E-03	P			2.0E-02	X					1	0.1		Methyl-5-Nitroaniline, 2-	99-55-8	6.0E+01	c*	2.6E+02	c*					8.2E+00	c*		4.6E-03	c*	
8.3E+00	C	2.4E-03	C							1	0.1		Methyl-N-nitro-N-nitrosoguanidine, N-	70-25-7	6.5E-02	c	2.8E-01	c	1.2E-03	c	5.1E-03	c	9.4E-03	c		3.2E-06	c	
1.3E-01	C	3.7E-05	C							1	0.1		Methylaniline Hydrochloride, 2-	636-21-5	4.2E+00	c	1.8E+01	c	7.6E-02	c	3.3E-01	c	6.0E-01	c		2.6E-04	c	
				1.0E-02	A					1	0.1		Methylarsonic acid	124-58-3	6.3E+02	n	8.2E+03	n					2.0E+02	n		5.8E-02	n	
				2.0E-04	X					1	0.1		Methylbenzene,1-4-diamine monohydrochloride, 2-	74612-12-7	1.3E+01	n	1.6E+02	n					4.0E+00	n			n	
1.0E-01	X			3.0E-04	X					1	0.1		Methylbenzene-1,4-diamine sulfate, 2-	615-50-9	5.4E+00	c**	2.3E+01	c*					7.8E-01	c**			c**	
2.2E+01	C	6.3E-03	C						M	1	0.1		Methylcholanthrene, 3-	56-49-5	5.5E-03	c	1.0E-01	c	1.6E-04	c	1.9E-03	c	1.1E-03	c		2.2E-03	c	
2.0E-03	I	1.0E-08	I	6.0E-03	I	6.0E-01	I	V	M	1		3.3E+03	Methylene Chloride	75-09-2	5.7E+01	c**	1.0E+03	c**	1.0E+02	c**	1.2E+03	c**	1.1E+01	c**	5.0E+00	2.9E-03	c**	1.3E-03
1.0E-01	P	4.3E-04	C	2.0E-03	P				M	1	0.1		Methylene-bis(2-chloroaniline), 4,4'-	101-14-4	1.2E+00	c	2.3E+01	c*	2.4E-03	c	2.9E-02	c	1.6E-01	c		1.8E-03	c	
4.6E-02	I	1.3E-05	C							1	0.1		Methylene-bis(N,N-dimethyl) Aniline, 4,4'-	101-61-1	1.2E+01	c	5.0E+01	c	2.2E-01	c	9.4E-01	c	4.8E-01	c		2.6E-03	c	
1.6E+00	C	4.6E-04	C			2.0E-02	C			1	0.1		Methylenebisbenzenamine, 4,4'-	101-77-9	3.4E-01	c	1.4E+00	c	6.1E-03	c	2.7E-02	c	4.7E-02	c		2.1E-04	c	
						6.0E-04	I			1	0.1		Methylenediphenyl Diisocyanate	101-68-8	8.5E+05	nm	3.6E+06	nm	6.3E-01	n	2.6E+00	n						
				7.0E-02	H			V		1		5.0E+02	Methylstyrene, Alpha-	98-83-9	5.5E+03	ns	8.2E+04	ns					7.8E+02	n		1.2E+00	n	
				1.5E-01	I					1	0.1		Metolachlor	51218-45-2	9.5E+03	n	1.2E+05	nm					2.7E+03	n		3.2E+00	n	

TR=1E-06
THQ=1.0

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Toxicity and Chemical-specific Information													Contaminant		Screening Levels												Protection of Ground Water SSLs		
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	volatile	mutagen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
				2.5E-02	I					1	0.1		Metribuzin	21087-64-9	1.6E+03	n	2.1E+04	n					4.9E+02	n		1.5E-01	n		
				2.5E-01	I					1	0.1		Metsulfuron-methyl	74223-64-6	1.6E+04	n	2.1E+05	nm					4.9E+03	n		1.9E+00	n		
				3.0E+00	P			V		1		3.4E-01	Mineral oils	8012-95-1	2.3E+05	nms	3.5E+06	nms					6.0E+04	n		2.4E+03	n		
1.8E+01	C	5.1E-03	C	2.0E-04	I			V		1			Mirex	2385-85-5	3.6E-02	c	1.7E-01	c	5.5E-04	c	2.4E-03	c	8.8E-04	c		6.0E-04	c		
				2.0E-03	I					1	0.1		Molinate	2212-67-1	1.3E+02	n	1.6E+03	n					3.0E+01	n		1.7E-02	n		
				5.0E-03	I					1			Molybdenum	7439-98-7	3.9E+02	n	5.8E+03	n					1.0E+02	n		2.0E+00	n		
				1.0E-01	I					1			Monochloramine	10599-90-3	7.8E+03	n	1.2E+05	nm					2.0E+03	n	4.0E+03		n		
				2.0E-03	P					1	0.1		Monomethylaniline	100-61-8	1.3E+02	n	1.6E+03	n					3.8E+01	n		1.4E-02	n		
				2.5E-02	I					1	0.1		Myclobutanil	88671-89-0	1.6E+03	n	2.1E+04	n					4.5E+02	n		5.6E+00	n		
				3.0E-04	X					1	0.1		N,N'-Diphenyl-1,4-benzenediamine	74-31-7	1.9E+01	n	2.5E+02	n					3.6E+00	n		3.7E-01	n		
				2.0E-03	I			V		1			Naled	300-76-5	1.6E+02	n	2.3E+03	n					4.0E+01	n		1.8E-02	n		
				3.0E-02	X	1.0E-01	P	V		1			Naphtha, High Flash Aromatic (HFAN)	64742-95-6	2.3E+03	n	3.5E+04	n	1.0E+02	n	4.4E+02	n	1.5E+02	n			n		
1.8E+00	C	0.0E+00	C							1	0.1		Naphthylamine, 2-	91-59-8	3.0E-01	c	1.3E+00	c					3.9E-02	c		2.0E-04	c		
				1.0E-01	I					1	0.1		Napropamide	15299-99-7	6.3E+03	n	8.2E+04	n					1.6E+03	n		1.1E+01	n		
		2.6E-04	C	1.1E-02	C	1.4E-05	C			1	0.1		Nickel Acetate	373-02-4	6.7E+02	n	8.1E+03	n	1.1E-02	c**	4.7E-02	c**	2.2E+02	n		4.5E-02	n		
		2.6E-04	C	1.1E-02	C	1.4E-05	C			1	0.1		Nickel Carbonate	3333-67-3	6.7E+02	n	8.1E+03	n	1.1E-02	c**	4.7E-02	c**	2.2E+02	n			n		
		2.6E-04	C	1.1E-02	C	1.4E-05	C	V		1			Nickel Carbonyl	13463-39-3	8.2E+02	n	1.1E+04	n	1.1E-02	c**	4.7E-02	c**	2.2E-02	c**			c**		
		2.6E-04	C	1.1E-02	C	1.4E-05	C			0.04			Nickel Hydroxide	12054-48-7	8.2E+02	n	1.1E+04	n	1.1E-02	c**	4.7E-02	c**	2.0E+02	n			n		
		2.6E-04	C	1.1E-02	C	2.0E-05	C			0.04			Nickel Oxide	1313-99-1	8.4E+02	n	1.2E+04	n	1.1E-02	c**	4.7E-02	c**	2.0E+02	n			n		
		2.4E-04	I	1.1E-02	C	1.4E-05	C			0.04			Nickel Refinery Dust	NA	8.2E+02	n	1.1E+04	n	1.2E-02	c**	5.1E-02	c**	2.2E+02	n		3.2E+01	n		
		2.6E-04	C	2.0E-02	I	9.0E-05	A			0.04			Nickel Soluble Salts	7440-02-0	1.5E+03	n	2.2E+04	n	1.1E-02	c**	4.7E-02	c**	3.9E+02	n		2.6E+01	n		
1.7E+00	C	4.8E-04	I	1.1E-02	C	1.4E-05	C			0.04			Nickel Subsulfide	12035-72-2	4.1E-01	c	1.9E+00	c	5.8E-03	c**	2.6E-02	c**	4.5E-02	c			c		
		2.6E-04	C	1.1E-02	C	1.4E-05	C			1	0.1		Nickelocene	1271-28-9	6.7E+02	n	8.1E+03	n	1.1E-02	c**	4.7E-02	c**	2.2E+02	n			n		
				1.6E+00	I					1			Nitrate	14797-55-8	1.3E+05	nm	1.9E+06	nm					3.2E+04	n	1.0E+04		n		
										1			Nitrate + Nitrite (as N)	NA											1.0E+04				
				1.0E-01	I					1			Nitrite	14797-65-0	7.8E+03	n	1.2E+05	nm					2.0E+03	n	1.0E+03		n		
				1.0E-02	X	5.0E-05	X			1	0.1		Nitroaniline, 2-	88-74-4	6.3E+02	n	8.0E+03	n	5.2E-02	n	2.2E-01	n	1.9E+02	n		8.0E-02	n		
2.0E-02	P			4.0E-03	P	6.0E-03	P			1	0.1		Nitroaniline, 4-	100-01-6	2.7E+01	c**	1.1E+02	c*	6.3E+00	n	2.6E+01	n	3.8E+00	c*		1.6E-03	c*		
		4.0E-05	I	2.0E-03	I	9.0E-03	I	V		1		3.1E+03	Nitrobenzene	98-95-3	5.1E+00	c*	2.2E+01	c*	7.0E-02	c	3.1E-01	c	1.4E-01	c*		9.2E-05	c*		
				3.0E+03	P					1	0.1		Nitrocellulose	9004-70-0	1.9E+08	nm	2.5E+09	nm					6.0E+07	n		1.3E+04	n		
				7.0E-02	H					1	0.1		Nitrofurantoin	67-20-9	4.4E+03	n	5.7E+04	n					1.4E+03	n		6.1E-01	n		
1.3E+00	C	3.7E-04	C							1	0.1		Nitrofurazone	59-87-0	4.2E-01	c	1.8E+00	c	7.6E-03	c	3.3E-02	c	6.0E-02	c		5.4E-05	c		
1.7E-02	P			1.0E-04	P					1	0.1		Nitroglycerin	55-63-0	6.3E+00	n	8.2E+01	n					2.0E+00	n		8.5E-04	n		
				1.0E-01	I					1	0.1		Nitroguanidine	556-88-7	6.3E+03	n	8.2E+04	n					2.0E+03	n		4.8E-01	n		
		8.8E-06	P			5.0E-03	P	V		1		1.8E+04	Nitromethane	75-52-5	5.4E+00	c*	2.4E+01	c*	3.2E-01	c*	1.4E+00	c*	6.4E-01	c*		1.4E-04	c*		
		2.7E-03	H			2.0E-02	I	V		1		4.9E+03	Nitropropane, 2-	79-46-9	1.4E-02	c	6.0E-02	c	1.0E-03	c	4.5E-03	c	2.1E-03	c		5.4E-07	c		
2.7E+01	C	7.7E-03	C						M	1	0.1		Nitroso-N-ethylurea, N-	759-73-9	4.5E-03	c	8.5E-02	c	1.3E-04	c	1.6E-03	c	9.2E-04	c		2.2E-07	c		
1.2E+02	C	3.4E-02	C						M	1	0.1		Nitroso-N-methylurea, N-	684-93-5	1.0E-03	c	1.9E-02	c	3.0E-05	c	3.6E-04	c	2.1E-04	c		4.6E-06	c		
5.4E+00	I	1.6E-03	I					V		1			Nitroso-di-N-butylamine, N-	924-16-3	9.9E-02	c	4.6E-01	c	1.8E-03	c	7.7E-03	c	2.7E-03	c		5.5E-06	c		
7.0E+00	I	2.0E-03	C							1	0.1		Nitroso-di-N-propylamine, N-	621-64-7	7.8E-02	c	3.3E-01	c	1.4E-03	c	6.1E-03	c	1.1E-02	c		8.1E-06	c		
2.8E+00	I	8.0E-04	C							1	0.1		Nitrosodiethanolamine, N-	1116-54-7	1.9E-01	c	8.2E-01	c	3.5E-03	c	1.5E-02	c	2.8E-02	c		5.6E-06	c		
1.5E+02	I	4.3E-02	I						M	1	0.1		Nitrosodiethylamine, N-	55-18-5	8.1E-04	c	1.5E-02	c	2.4E-05	c	2.9E-04	c	1.7E-04	c		6.1E-08	c		
5.1E+01	I	1.4E-02	I	8.0E-06	P	4.0E-05	X	V	M	1		2.4E+05	Nitrosodimethylamine, N-	62-75-9	2.0E-03	c	3.4E-02	c	7.2E-05	c	8.8E-04	c	1.1E-04	c		2.7E-08	c		
4.9E-03	I	2.6E-06	C							1	0.1		Nitrosodiphenylamine, N-	86-30-6	1.1E+02	c	4.7E+02	c	1.1E+00	c	4.7E+00	c	1.2E+01	c		6.7E-02	c		
2.2E+01	I	6.3E-03	C					V		1		1.1E+05	Nitrosomethylethylamine, N-	10595-95-6	2.0E-02	c	9.1E-02	c	4.5E-04	c	1.9E-03	c	7.1E-04	c		2.0E-07	c		
6.7E+00	C	1.9E-03	C							1	0.1		Nitrosomorpholine [N-]	59-89-2	8.1E-02	c	3.4E-01	c	1.5E-03	c	6.5E-03	c	1.2E-02	c		2.8E-06	c		
9.4E+00	C	2.7E-03	C							1	0.1		Nitrosopiperidine [N-]	100-75-4	5.8E-02	c	2.4E-01	c	1.0E-03	c	4.5E-03	c	8.2E-03	c		4.4E-06	c		
2.1E+00	I	6.1E-04	I							1	0.1		Nitrosopyrrolidine, N-	930-55-2	2.6E-01	c	1.1E+00	c	4.6E-03	c	2.0E-02	c	3.7E-02	c		1.4E-05	c		
				1.0E-04	X					1	0.1		Nitrotoluene, m-	99-08-1	6.3E+00	n	8.2E+01	n					1.7E+00	n		1.6E-03	n		
2.2E-01	P			9.0E-04	P			V		1		1.5E+03	Nitrotoluene, o-	88-72-2	3.2E+00	c*	1.5E+01	c*					3.1E-01	c*		3.0E-04	c*		
1.6E-02	P			4.0E-03	P					1	0.1		Nitrotoluene, p-	99-99-0	3.4E+01	c**	1.4E+02	c*					4.3E+00	c*		4.0E-03	c*		
				3.0E-04	X	2.0E-02	P	V		1		6.9E+00	Nonane, n-	111-84-2	1.1E+01	ns	7.2E+01	ns	2.1E+01	n	8.8E+01	n	5.3E+00	n		7.5E-02	n		
				4.0E-02	I					1	0.1		Norflurazon	27314-13-2	2.5E+03	n	3.3E+04	n					7.7E+02	n		5.0E+00	n		
				3.0E-03	I					1	0.1		Octabromodiphenyl Ether	32536-52-0	1.9E+02	n	2.5E+03	n					6.0E+01	n		1.2E+01	n		
				5.0E-02	I					1	0.006		Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	3.9E+03	n	5.7E+04	n					1.0E+03	n		1.3E+00	n		
				2.0E-03	H					1	0.1		Octamethylpyrophosphoramide	152-16-9	1.3E+02	n	1.6E+03	n					4.0E+01	n		9.6E-03	n		
				5.0E-02	I					1	0.1		Oryzalin	19044-88-3	3.2E+03	n	4.1E+04	n					8.1E+02	n		1.5E+00	n		
				5.0E-03	I					1	0.1		Oxadiazon	19666-30-9	3.2E+02	n	4.1E+03	n					4.7E+01	n		4.8E-01	n		
				2.5E-02	I					1	0.1		Oxamyl	23135-22-0	1.6E+03	n	2.1E+04	n					5.0E+02	n	2.0E+02	1.1E-01	n	4.4E-02	
				3.0E-03	I					1	0.1		Oxyfluorfen	42874-03-3	1.9E+02	n	2.5E+03	n					3.2E+01	n		2.5E+00	n		
				1.3E-02	I					1	0.1		Paclobutrazol	76738-62-0	8.2E+02	n	1.1E+04	n					2.3E+02	n		4.6E-01	n		
				4.5E-03	I					1	0.1		Paraquat Dichloride	1910-42-5	2.8E+02	n	3.7E+03	n					9.0E+01	n		1.2E+00	n		
				6.0E-03	H					1	0.1		Parathion	56-38-2	3.8E+02	n	4.9E+03	n					8.6E+01	n		4.3E-01	n		
				5.0E-02	H			V		1			Pebulate	1114-71-2	3.9E+03	n	5.8E+04	n					5.6E+02	n		4.5E-01	n		
				4.0E-02	I					1	0.1		Pendimethalin	40487-42-1	2.5E+03	n	3.3E+04	n					1.8E+02	n		2.1E+00	n		
				2.0E-03	I			V		1		3.1E-01	Pentabromodiphenyl Ether	32534-81-9	1.6E+02	ns	2.3E+03	ns					4.0E+01	n		1.7E+00	n		
				1.0E-04	I					1	0.1		Pentabromodiphenyl ether, 2,2',4,4',5- (BDE-99)	60348-60-9	6.3E+00	n	8.2E+01	n					2.0E+00	n		6.7E-02	n		
		8.0E-04	I					V		1			Pentachlorobenzene	608-93-5	6.3E+01	n	9.3E+02	n					3.2E+00	n		2.4E-02	n		
9.0E-02	P							V		1		4.6E+02	Pentachloroethane	76-01-7	7.7E+00	c	3.6E+01	c					6.5E-01	c		3.1E-04	c		
2.6E-01	H			3.0E-03	I			V		1			Pentachloronitrobenzene	82-68-8	2.7E+00	c*	1.3E+01	c					1.2E-01	c		1.5E-03	c		
4.0E-01	I	5.1E-06	C	5.0E-03	I					1	0.25		Pentachlorophenol	87-86-5	1.0E+00	c	4.0E+00	c	5.5E-01	c	2.4E+00	c	4.1E-02	c	1.0E+00	5.7E-05	c	1.4E-03	
4.0E-03	X			2.0E-03	P					1	0.1		Pentaerythritol tetranitrate (PETN)	78-11-5	1.3E+02	n	5.7E+02	c**					1.9E+01	c**		2.8E-02	c**		
						1.0E+00	P	V		1		3.9E+02	Pentane, n-	109-66-0	8.1E+02	ns	3.4E+03	ns	1.0E+03	n	4.4E+03	n	2.1E+03	n		1.0E+01	n		
													Perchlorates																	
				7.0E-04	I					1			~Ammonium Perchlorate	7790-98-9	5.5E+01	n	8.2E+02	n					1.4E+01	n			n		
				7.0E-04	I					1			~Lithium Perchlorate	7791-03-9	5.5E+01	n	8.2E+02	n					1.4E+01	n			n		

TR=1E-0
THQ=1.0

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Toxicity and Chemical-specific Information												Contaminant		Screening Levels													Protection of Ground Water SSLs		
SFO (mg/kg-day)$^{-1}$	key	IUR (μg/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	volatile	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (μg/m^3)	key	Industrial Air (μg/m^3)	key	Tapwater (μg/L)	key	MCL (μg/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
				7.0E-04	I					1			~Perchlorate and Perchlorate Salts	14797-73-0	5.5E+01	n	8.2E+02	n					1.4E+01	n	1.5E+01(F)		n	
				7.0E-04	I					1			~Potassium Perchlorate	7778-74-7	5.5E+01	n	8.2E+02	n					1.4E+01	n			n	
				7.0E-04	I					1			~Sodium Perchlorate	7601-89-0	5.5E+01	n	8.2E+02	n					1.4E+01	n			n	
				2.0E-02	P			V		1			Perfluorobutane Sulfonate	375-73-5	1.6E+03	n	2.3E+04	n					3.8E+02	n		2.1E-01	n	
				5.0E-02	I					1	0.1		Permethrin	52645-53-1	3.2E+03	n	4.1E+04	n					1.0E+03	n		2.4E+02	n	
2.2E-03	C	6.3E-07	C							1	0.1		Phenacetin	62-44-2	2.5E+02	c	1.0E+03	c	4.5E+00	c	1.9E+01	c	3.4E+01	c		9.7E-03	c	
				2.5E-01	I					1	0.1		Phenmedipham	13684-63-4	1.6E+04	n	2.1E+05	nm					4.0E+03	n		2.1E+01	n	
				3.0E-01	I	2.0E-01	C			1	0.1		Phenol	108-95-2	1.9E+04	n	2.5E+05	nm	2.1E+02	n	8.8E+02	n	5.8E+03	n		3.3E+00	n	
				4.0E-03	I					1	0.1		Phenol, 2-(1-methylethoxy)-, methylcarbamate	114-26-1	2.5E+02	n	3.3E+03	n					7.8E+01	n		2.5E-02	n	
				5.0E-04	X					1	0.1		Phenothiazine	92-84-2	3.2E+01	n	4.1E+02	n					4.3E+00	n		1.4E-02	n	
				6.0E-03	I					1	0.1		Phenylenediamine, m-	108-45-2	3.8E+02	n	4.9E+03	n					1.2E+02	n		3.2E-02	n	
4.7E-02	H									1	0.1		Phenylenediamine, o-	95-54-5	1.2E+01	c	4.9E+01	c					1.6E+00	c		4.4E-04	c	
				1.9E-01	H					1	0.1		Phenylenediamine, p-	106-50-3	1.2E+04	n	1.6E+05	nm					3.8E+03	n		1.0E+00	n	
1.9E-03	H									1	0.1		Phenylphenol, 2-	90-43-7	2.8E+02	c	1.2E+03	c					3.0E+01	c		4.1E-01	c	
				2.0E-04	H					1	0.1		Phorate	298-02-2	1.3E+01	n	1.6E+02	n					3.0E+00	n		3.4E-03	n	
						3.0E-04	I	V		1		1.6E+03	Phosgene	75-44-5	3.1E-01	n	1.3E+00	n	3.1E-01	n	1.3E+00	n						
				2.0E-02	I					1	0.1		Phosmet	732-11-6	1.3E+03	n	1.6E+04	n					3.7E+02	n		8.2E-02	n	
													Phosphates, Inorganic																
				4.9E+01	P					1			~Aluminum metaphosphate	13776-88-0	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Ammonium polyphosphate	68333-79-9	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Calcium pyrophosphate	7790-76-3	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Diammonium phosphate	7783-28-0	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Dicalcium phosphate	7757-93-9	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Dimagnesium phosphate	7782-75-4	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Dipotassium phosphate	7758-11-4	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Disodium phosphate	7558-79-4	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Monoaluminum phosphate	13530-50-2	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Monoammonium phosphate	7722-76-1	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Monocalcium phosphate	7758-23-8	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Monomagnesium phosphate	7757-86-0	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Monopotassium phosphate	7778-77-0	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Monosodium phosphate	7558-80-7	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Polyphosphoric acid	8017-16-1	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Potassium tripolyphosphate	13845-36-8	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Sodium acid pyrophosphate	7758-16-9	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Sodium aluminum phosphate (acidic)	7785-88-8	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Sodium aluminum phosphate (anhydrous)	10279-59-1	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Sodium aluminum phosphate (tetrahydrate)	10305-76-7	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Sodium hexametaphosphate	10124-56-8	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Sodium polyphosphate	68915-31-1	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Sodium trimetaphosphate	7785-84-4	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Sodium tripolyphosphate	7758-29-4	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Tetrapotassium phosphate	7320-34-5	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Tetrasodium pyrophosphate	7722-88-5	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Trialuminum sodium tetra decahydrogenoctaorthophosphate (dihydrate)	15136-87-5	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Tricalcium phosphate	7758-87-4	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Trimagnesium phosphate	7757-87-1	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Tripotassium phosphate	7778-53-2	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				4.9E+01	P					1			~Trisodium phosphate	7601-54-9	3.8E+06	nm	5.7E+07	nm					9.7E+05	n			n	
				3.0E-04	I	3.0E-04	I	V		1			Phosphine	7803-51-2	2.3E+01	n	3.5E+02	n	3.1E-01	n	1.3E+00	n	5.7E-01	n			n	
				4.9E+01	P	1.0E-02	I			1			Phosphoric Acid	7664-38-2	3.0E+06	nm	2.9E+07	nm	1.0E+01	n	4.4E+01	n	9.7E+05	n			n	
				2.0E-05	I			V		1			Phosphorus, White	7723-14-0	1.6E+00	n	2.3E+01	n					4.0E-01	n		1.5E-03	n	
													Phthalates																
1.4E-02	I	2.4E-06	C	2.0E-02	I					1	0.1		~Bis(2-ethylhexyl)phthalate	117-81-7	3.9E+01	c*	1.6E+02	c	1.2E+00	c	5.1E+00	c	5.6E+00	c*	6.0E+00	1.3E+00	c*	1.4E+00
1.9E-03	P			2.0E-01	I					1	0.1		~Butyl Benzyl Phthalate	85-68-7	2.9E+02	c*	1.2E+03	c					1.6E+01	c		2.4E-01	c	
				1.0E+00	I					1	0.1		~Butylphthalyl Butylglycolate	85-70-1	6.3E+04	n	8.2E+05	nm					1.3E+04	n		3.1E+02	n	
				1.0E-01	I					1	0.1		~Dibutyl Phthalate	84-74-2	6.3E+03	n	8.2E+04	n					9.0E+02	n		2.3E+00	n	
				8.0E-01	I					1	0.1		~Diethyl Phthalate	84-66-2	5.1E+04	n	6.6E+05	nm					1.5E+04	n		6.1E+00	n	
				1.0E-01	I			V		1			~Dimethylterephthalate	120-61-6	7.8E+03	n	1.2E+05	nm					1.9E+03	n		4.9E-01	n	
				1.0E-02	P					1	0.1		~Octyl Phthalate, di-N-	117-84-0	6.3E+02	n	8.2E+03	n					2.0E+02	n		5.7E+01	n	
				1.0E+00	H					1	0.1		~Phthalic Acid, P-	100-21-0	6.3E+04	n	8.2E+05	nm					1.9E+04	n		6.8E+00	n	
				2.0E+00	I	2.0E-02	C			1	0.1		~Phthalic Anhydride	85-44-9	1.3E+05	nm	1.6E+06	nm	2.1E+01	n	8.8E+01	n	3.9E+04	n		8.5E+00	n	
				7.0E-02	I					1	0.1		Picloram	1918-02-1	4.4E+03	n	5.7E+04	n					1.4E+03	n	5.0E+02	3.8E-01	n	1.4E-01
				1.0E-04	X					1	0.1		Picramic Acid (2-Amino-4,6-dinitrophenol)	96-91-3	6.3E+00	n	8.2E+01	n					2.0E+00	n		1.3E-03	n	
				9.0E-04	X					1	0.1		Picric Acid (2,4,6-Trinitrophenol)	88-89-1	5.7E+01	n	7.4E+02	n					1.8E+01	n		8.4E-02	n	
				1.0E-02	I					1	0.1		Pirimiphos, Methyl	29232-93-7	6.3E+02	n	8.2E+03	n					1.2E+02	n		1.2E-01	n	
3.0E+01	C	8.6E-03	C	7.0E-06	H					1	0.1		Polybrominated Biphenyls	59536-65-1	1.8E-02	c*	7.7E-02	c*	3.3E-04	c	1.4E-03	c	2.6E-03	c*			c*	
													Polychlorinated Biphenyls (PCBs)																
7.0E-02	S	2.0E-05	S	7.0E-05	I			V		1	0.14		~Aroclor 1016	12674-11-2	4.1E+00	n	2.7E+01	c**	1.4E-01	c	6.1E-01	c	2.2E-01	c**		2.1E-02	c**	
2.0E+00	S	5.7E-04	S					V		1	0.14		~Aroclor 1221	11104-28-2	2.0E-01	c	8.3E-01	c	4.9E-03	c	2.1E-02	c	4.7E-03	c		8.0E-05	c	
2.0E+00	S	5.7E-04	S					V		1	0.14		~Aroclor 1232	11141-16-5	1.7E-01	c	7.2E-01	c	4.9E-03	c	2.1E-02	c	4.7E-03	c		8.0E-05	c	
2.0E+00	S	5.7E-04	S					V		1	0.14		~Aroclor 1242	53469-21-9	2.3E-01	c	9.5E-01	c	4.9E-03	c	2.1E-02	c	7.8E-03	c		1.2E-03	c	
2.0E+00	S	5.7E-04	S					V		1	0.14		~Aroclor 1248	12672-29-6	2.3E-01	c	9.5E-01	c	4.9E-03	c	2.1E-02	c	7.8E-03	c		1.2E-03	c	
2.0E+00	S	5.7E-04	S	2.0E-05	I			V		1	0.14		~Aroclor 1254	11097-69-1	2.4E-01	c**	9.7E-01	c*	4.9E-03	c	2.1E-02	c	7.8E-03	c*		2.0E-03	c*	
2.0E+00	S	5.7E-04	S					V		1	0.14		~Aroclor 1260	11096-82-5	2.4E-01	c	9.9E-01	c	4.9E-03	c	2.1E-02	c	7.8E-03	c		5.5E-03	c	
				6.0E-04	X			V		1	0.14		~Aroclor 5460	11126-42-4	3.5E+01	n	4.4E+02	n					1.2E+01	n		2.0E+00	n	

TR=1E-06
THQ=1

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Toxicity and Chemical-specific Information												Contaminant		Screening Levels												Protection of Ground Water SSLs		
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	volatile	mutagen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		~Heptachlorobiphenyl, 2,3,3',4,4',5,5'- (PCB 189)	39635-31-9	1.3E-01	c*	5.2E-01	c*	2.5E-03	c	1.1E-02	c	4.0E-03	c		2.8E-03	c	
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		~Hexachlorobiphenyl, 2,3',4,4',5,5'- (PCB 167)	52663-72-6	1.2E-01	c*	5.1E-01	c*	2.5E-03	c	1.1E-02	c	4.0E-03	c		1.7E-03	c	
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		~Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 157)	69782-90-7	1.2E-01	c*	5.0E-01	c*	2.5E-03	c	1.1E-02	c	4.0E-03	c		1.7E-03	c	
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		~Hexachlorobiphenyl, 2,3,3',4,4',5- (PCB 156)	38380-08-4	1.2E-01	c*	5.0E-01	c*	2.5E-03	c	1.1E-02	c	4.0E-03	c		1.7E-03	c	
3.9E+03	E	1.1E+00	E	2.3E-08	E	1.3E-06	E	V		1	0.14		~Hexachlorobiphenyl, 3,3',4,4',5,5'- (PCB 169)	32774-16-6	1.2E-04	c*	5.1E-04	c*	2.5E-06	c	1.1E-05	c	4.0E-06	c		1.7E-06	c	
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		~Pentachlorobiphenyl, 2',3,4,4',5- (PCB 123)	65510-44-3	1.2E-01	c*	4.9E-01	c*	2.5E-03	c	1.1E-02	c	4.0E-03	c		1.0E-03	c	
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		~Pentachlorobiphenyl, 2,3',4,4',5- (PCB 118)	31508-00-6	1.2E-01	c*	4.9E-01	c*	2.5E-03	c	1.1E-02	c	4.0E-03	c		1.0E-03	c	
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		~Pentachlorobiphenyl, 2,3,3',4,4'- (PCB 105)	32598-14-4	1.2E-01	c*	4.9E-01	c*	2.5E-03	c	1.1E-02	c	4.0E-03	c		1.0E-03	c	
3.9E+00	E	1.1E-03	E	2.3E-05	E	1.3E-03	E	V		1	0.14		~Pentachlorobiphenyl, 2,3,4,4',5- (PCB 114)	74472-37-0	1.2E-01	c*	5.0E-01	c*	2.5E-03	c	1.1E-02	c	4.0E-03	c		1.0E-03	c	
1.3E+04	E	3.8E+00	E	7.0E-09	E	4.0E-07	E	V		1	0.14		~Pentachlorobiphenyl, 3,3',4,4',5- (PCB 126)	57465-28-8	3.6E-05	c*	1.5E-04	c*	7.4E-07	c	3.2E-06	c	1.2E-06	c		3.0E-07	c	
2.0E+00	I	5.7E-04	I					V		1	0.14		~Polychlorinated Biphenyls (high risk)	1336-36-3	2.3E-01	c	9.4E-01	c	4.9E-03	c	2.1E-02	c						
4.0E-01	I	1.0E-04	I					V		1	0.14		~Polychlorinated Biphenyls (low risk)	1336-36-3					2.8E-02	c	1.2E-01	c	4.4E-02	c	5.0E-01	6.8E-03	c	7.8E-02
7.0E-02	I	2.0E-05	I					V		1	0.14		~Polychlorinated Biphenyls (lowest risk)	1336-36-3					1.4E-01	c	6.1E-01	c						
1.3E+01	E	3.8E-03	E	7.0E-06	E	4.0E-04	E			1	0.14		~Tetrachlorobiphenyl, 3,3',4,4'- (PCB 77)	32598-13-3	3.8E-02	c*	1.6E-01	c*	7.4E-04	c	3.2E-03	c	6.0E-03	c*		9.4E-04	c*	
3.9E+01	E	1.1E-02	E	2.3E-06	E	1.3E-04	E	V		1	0.14		~Tetrachlorobiphenyl, 3,4,4',5- (PCB 81)	70362-50-4	1.2E-02	c*	4.8E-02	c*	2.5E-04	c	1.1E-03	c	4.0E-04	c		6.2E-05	c	
						6.0E-04	I			1	0.1		Polymeric Methylene Diphenyl Diisocyanate (PMDI)	9016-87-9	8.5E+05	nm	3.6E+06	nm	6.3E-01	n	2.6E+00	n						
													Polynuclear Aromatic Hydrocarbons (PAHs)															
				6.0E-02	I			V		1	0.13		~Acenaphthene	83-32-9	3.6E+03	n	4.5E+04	n					5.3E+02	n		5.5E+00	n	
				3.0E-01	I			V		1	0.13		~Anthracene	120-12-7	1.8E+04	n	2.3E+05	nm					1.8E+03	n		5.8E+01	n	
7.3E-01	E	1.1E-04	C					V	M	1	0.13		~Benz[a]anthracene	56-55-3	1.6E-01	c	2.9E+00	c	9.2E-03	c	1.1E-01	c	1.2E-02	c		4.2E-03	c	
1.2E+00	C	1.1E-04	C							1	0.13		~Benzo(j)fluoranthene	205-82-3	4.2E-01	c	1.8E+00	c	2.6E-02	c	1.1E-01	c	6.5E-02	c		7.8E-02	c	
7.3E+00	I	1.1E-03	C						M	1	0.13		~Benzo[a]pyrene	50-32-8	1.6E-02	c	2.9E-01	c	9.2E-04	c	1.1E-02	c	3.4E-03	c	2.0E-01	4.0E-03	c	2.4E-01
7.3E-01	E	1.1E-04	C						M	1	0.13		~Benzo[b]fluoranthene	205-99-2	1.6E-01	c	2.9E+00	c	9.2E-03	c	1.1E-01	c	3.4E-02	c		4.1E-02	c	
7.3E-02	E	1.1E-04	C						M	1	0.13		~Benzo[k]fluoranthene	207-08-9	1.6E+00	c	2.9E+01	c	9.2E-03	c	1.1E-01	c	3.4E-01	c		4.0E-01	c	
				8.0E-02	I			V		1	0.13		~Chloronaphthalene, Beta-	91-58-7	4.8E+03	n	6.0E+04	n					7.5E+02	n		3.9E+00	n	
7.3E-03	E	1.1E-05	C						M	1	0.13		~Chrysene	218-01-9	1.6E+01	c	2.9E+02	c	9.2E-02	c	1.1E+00	c	3.4E+00	c		1.2E+00	c	
7.3E+00	E	1.2E-03	C						M	1	0.13		~Dibenz[a,h]anthracene	53-70-3	1.6E-02	c	2.9E-01	c	8.4E-04	c	1.0E-02	c	3.4E-03	c		1.3E-02	c	
1.2E+01	C	1.1E-03	C							1	0.13		~Dibenzo(a,e)pyrene	192-65-4	4.2E-02	c	1.8E-01	c	2.6E-03	c	1.1E-02	c	6.5E-03	c		8.4E-02	c	
2.5E+02	C	7.1E-02	C						M	1	0.13		~Dimethylbenz(a)anthracene, 7,12-	57-97-6	4.6E-04	c	8.4E-03	c	1.4E-05	c	1.7E-04	c	1.0E-04	c		9.9E-05	c	
				4.0E-02	I					1	0.13		~Fluoranthene	206-44-0	2.4E+03	n	3.0E+04	n					8.0E+02	n		8.9E+01	n	
				4.0E-02	I			V		1	0.13		~Fluorene	86-73-7	2.4E+03	n	3.0E+04	n					2.9E+02	n		5.4E+00	n	
7.3E-01	E	1.1E-04	C						M	1	0.13		~Indeno[1,2,3-cd]pyrene	193-39-5	1.6E-01	c	2.9E+00	c	9.2E-03	c	1.1E-01	c	3.4E-02	c		1.3E-01	c	
2.9E-02	P			7.0E-02	A			V		1	0.13	3.9E+02	~Methylnaphthalene, 1-	90-12-0	1.8E+01	c	7.3E+01	c					1.1E+00	c		6.0E-03	c	
				4.0E-03	I			V		1	0.13		~Methylnaphthalene, 2-	91-57-6	2.4E+02	n	3.0E+03	n					3.6E+01	n		1.9E-01	n	
		3.4E-05	C	2.0E-02	I	3.0E-03	I	V		1	0.13		~Naphthalene	91-20-3	3.8E+00	c*	1.7E+01	c*	8.3E-02	c*	3.6E-01	c*	1.7E-01	c*		5.4E-04	c*	
1.2E+00	C	1.1E-04	C							1	0.13		~Nitropyrene, 4-	57835-92-4	4.2E-01	c	1.8E+00	c	2.6E-02	c	1.1E-01	c	1.9E-02	c		3.3E-03	c	
				3.0E-02	I			V		1	0.13		~Pyrene	129-00-0	1.8E+03	n	2.3E+04	n					1.2E+02	n		1.3E+01	n	
				2.0E-02	P					1	0.1		Potassium Perfluorobutane Sulfonate	29420-49-3	1.3E+03	n	1.6E+04	n					4.0E+02	n		2.2E-01	n	
1.5E-01	I			9.0E-03	I					1	0.1		Prochloraz	67747-09-5	3.6E+00	c	1.5E+01	c					3.8E-01	c		1.9E-03	c	
				6.0E-03	H			V		1			Profluralin	26399-36-0	4.7E+02	n	7.0E+03	n					2.6E+01	n		1.6E+00	n	
				1.5E-02	I					1	0.1		Prometon	1610-18-0	9.5E+02	n	1.2E+04	n					2.5E+02	n		1.2E-01	n	
				4.0E-03	I					1	0.1		Prometryn	7287-19-6	2.5E+02	n	3.3E+03	n					6.0E+01	n		9.0E-02	n	
				1.3E-02	I					1	0.1		Propachlor	1918-16-7	8.2E+02	n	1.1E+04	n					2.5E+02	n		1.5E-01	n	
				5.0E-03	I					1	0.1		Propanil	709-98-8	3.2E+02	n	4.1E+03	n					8.2E+01	n		4.5E-02	n	
				2.0E-02	I					1	0.1		Propargite	2312-35-8	1.3E+03	n	1.6E+04	n					1.6E+02	n		1.2E+01	n	
				2.0E-03	I			V		1		1.1E+05	Propargyl Alcohol	107-19-7	1.6E+02	n	2.3E+03	n					4.0E+01	n		8.1E-03	n	
				2.0E-02	I					1	0.1		Propazine	139-40-2	1.3E+03	n	1.6E+04	n					3.4E+02	n		3.0E-01	n	
				2.0E-02	I					1	0.1		Propham	122-42-9	1.3E+03	n	1.6E+04	n					3.5E+02	n		2.2E-01	n	
				1.3E-02	I					1	0.1		Propiconazole	60207-90-1	8.2E+02	n	1.1E+04	n					2.1E+02	n		6.9E-01	n	
						8.0E-03	I	V		1		3.3E+04	Propionaldehyde	123-38-6	7.5E+01	n	3.1E+02	n	8.3E+00	n	3.5E+01	n	1.7E+01	n		3.4E-03	n	
				1.0E-01	X	1.0E+00	X	V		1		2.6E+02	Propyl benzene	103-65-1	3.8E+03	ns	2.4E+04	ns	1.0E+03	n	4.4E+03	n	6.6E+02	n		1.2E+00	n	
						3.0E+00	C	V		1		3.5E+02	Propylene	115-07-1	2.2E+03	ns	9.3E+03	ns	3.1E+03	n	1.3E+04	n	6.3E+03	n		6.0E+00	n	
				2.0E+01	P					1	0.1		Propylene Glycol	57-55-6	1.3E+06	nm	1.6E+07	nm					4.0E+05	n		8.1E+01	n	
						2.7E-04	A			1	0.1		Propylene Glycol Dinitrate	6423-43-4	3.9E+05	nm	1.6E+06	nm	2.8E-01	n	1.2E+00	n						
				7.0E-01	H	2.0E+00	I	V		1		1.1E+05	Propylene Glycol Monomethyl Ether	107-98-2	4.1E+04	n	3.7E+05	nms	2.1E+03	n	8.8E+03	n	3.2E+03	n		6.5E-01	n	
2.4E-01	I	3.7E-06	I			3.0E-02	I	V		1		7.8E+04	Propylene Oxide	75-56-9	2.1E+00	c	9.7E+00	c	7.6E-01	c*	3.3E+00	c*	2.7E-01	c		5.6E-05	c	
				7.5E-02	I					1	0.1		Propyzamide	23950-58-5	4.7E+03	n	6.2E+04	n					1.2E+03	n		1.2E+00	n	
				1.0E-03	I			V		1		5.3E+05	Pyridine	110-86-1	7.8E+01	n	1.2E+03	n					2.0E+01	n		6.8E-03	n	
				5.0E-04	I					1	0.1		Quinalphos	13593-03-8	3.2E+01	n	4.1E+02	n					5.1E+00	n		4.3E-02	n	
3.0E+00	I									1	0.1		Quinoline	91-22-5	1.8E-01	c	7.7E-01	c					2.4E-02	c		7.8E-05	c	
				9.0E-03	I					1	0.1		Quizalofop-ethyl	76578-14-8	5.7E+02	n	7.4E+03	n					1.2E+02	n		1.9E+00	n	
						3.0E-02	A			1			Refractory Ceramic Fibers	NA	4.3E+07	nm	1.8E+08	nm	3.1E+01	n	1.3E+02	n						
				3.0E-02	I					1	0.1		Resmethrin	10453-86-8	1.9E+03	n	2.5E+04	n					6.7E+01	n		4.2E+01	n	
				5.0E-02	H			V		1			Ronnel	299-84-3	3.9E+03	n	5.8E+04	n					4.1E+02	n		3.7E+00	n	
				4.0E-03	I					1	0.1		Rotenone	83-79-4	2.5E+02	n	3.3E+03	n					6.1E+01	n		3.2E+01	n	
2.2E-01	C	6.3E-05	C						M	1	0.1		Safrole	94-59-7	5.5E-01	c	1.0E+01	c	1.6E-02	c	1.9E-01	c	9.6E-02	c		5.9E-05	c	
				5.0E-03	I					1			Selenious Acid	7783-00-8	3.9E+02	n	5.8E+03	n					1.0E+02	n			n	
				5.0E-03	I	2.0E-02	C			1			Selenium	7782-49-2	3.9E+02	n	5.8E+03	n	2.1E+01	n	8.8E+01	n	1.0E+02	n	5.0E+01	5.2E-01	n	2.6E-01
				5.0E-03	C	2.0E-02	C			1			Selenium Sulfide	7446-34-6	3.9E+02	n	5.8E+03	n	2.1E+01	n	8.8E+01	n	1.0E+02	n			n	
				9.0E-02	I					1	0.1		Sethoxydim	74051-80-2	5.7E+03	n	7.4E+04	n					1.0E+03	n		9.3E+00	n	
						3.0E-03	C			1			Silica (crystalline, respirable)	7631-86-9	4.3E+06	nm	1.8E+07	nm	3.1E+00	n	1.3E+01	n						
				5.0E-03	I					0.04			Silver	7440-22-4	3.9E+02	n	5.8E+03	n					9.4E+01	n		8.0E-01	n	
1.2E-01	H			5.0E-03	I					1	0.1		Simazine	122-34-9	4.5E+00	c*	1.9E+01	c					6.1E-01	c	4.0E+00	3.0E-04	c	2.0E-02
				1.3E-02	I					1	0.1		Sodium Acifluorfen	62476-59-9	8.2E+02	n	1.1E+04	n					2.6E+02	n		2.1E+00	n	
				4.0E-03	I					1			Sodium Azide	26628-22-8	3.1E+02	n	4.7E+03	n					8.0E+01	n			n	
5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C		M	0.025			Sodium Dichromate	10588-01-9	3.0E-01	c	6.2E+00	c	6.8E-06	c	8.2E-05	c	4.1E-02	c			c	

TR=1E-0
THQ=1.0

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Toxicity and Chemical-specific Information												Contaminant		Screening Levels											Protection of Ground Water SSLs		
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	volatile	mutagen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
2.7E-01	H			3.0E-02	I					1	0.1		Sodium Diethyldithiocarbamate	148-18-5	2.0E+00	c	8.5E+00	c					2.9E-01	c		1.8E-04	c	
				5.0E-02	A	1.3E-02	C			1			Sodium Fluoride	7681-49-4	3.9E+03	n	5.8E+04	n	1.4E+01	n	5.7E+01	n	1.0E+03	n			n	
				2.0E-05	I					1	0.1		Sodium Fluoroacetate	62-74-8	1.3E+00	n	1.6E+01	n					4.0E-01	n		8.1E-05	n	
				1.0E-03	H					1			Sodium Metavanadate	13718-26-8	7.8E+01	n	1.2E+03	n					2.0E+01	n			n	
				8.0E-04	P					1			Sodium Tungstate	13472-45-2	6.3E+01	n	9.3E+02	n					1.6E+01	n			n	
				8.0E-04	P					1			Sodium Tungstate Dihydrate	10213-10-2	6.3E+01	n	9.3E+02	n					1.6E+01	n			n	
2.4E-02	H			3.0E-02	I					1	0.1		Stirofos (Tetrachlorovinphos)	961-11-5	2.3E+01	c*	9.6E+01	c					2.8E+00	c		8.2E-03	c	
5.0E-01	C	1.5E-01	C	2.0E-02	C	2.0E-04	C		M	0.025			Strontium Chromate	7789-06-2	3.0E-01	c	6.2E+00	c	6.8E-06	c	8.2E-05	c	4.1E-02	c			c	
				6.0E-01	I					1			Strontium, Stable	7440-24-6	4.7E+04	nm	7.0E+05	nm					1.2E+04	n		4.2E+02	n	
				3.0E-04	I					1	0.1		Strychnine	57-24-9	1.9E+01	n	2.5E+02	n					5.9E+00	n		6.5E-02	n	
				2.0E-01	I	1.0E+00	I	V		1		8.7E+02	Styrene	100-42-5	6.0E+03	ns	3.5E+04	ns	1.0E+03	n	4.4E+03	n	1.2E+03	n	1.0E+02	1.3E+00	n	1.1E-01
				3.0E-03	P					1	0.1		Styrene-Acrylonitrile (SAN) Trimer	NA	1.9E+02	n	2.5E+03	n					4.8E+01	n			n	
				1.0E-03	P	2.0E-03	X			1	0.1		Sulfolane	126-33-0	6.3E+01	n	8.2E+02	n	2.1E+00	n	8.8E+00	n	2.0E+01	n		4.4E-03	n	
				8.0E-04	P					1	0.1		Sulfonylbis(4-chlorobenzene), 1,1'-	80-07-9	5.1E+01	n	6.6E+02	n					1.1E+01	n		6.5E-02	n	
						1.0E-03	C	V		1			Sulfur Trioxide	7446-11-9	1.4E+06	nm	6.0E+06	nm	1.0E+00	n	4.4E+00	n	2.1E+00	n			n	
				1.0E-03	C					1			Sulfuric Acid	7664-93-9	1.4E+06	nm	6.0E+06	nm	1.0E+00	n	4.4E+00	n						
2.5E-02	I	7.1E-06	I	5.0E-02	H					1	0.1		Sulfurous acid, 2-chloroethyl 2-[4-(1,1-dimethylethyl)phenoxy]-1-methylethyl ester	140-57-8	2.2E+01	c	9.2E+01	c	4.0E-01	c	1.7E+00	c	1.3E+00	c		1.5E-02	c	
				3.0E-02	H					1	0.1		TCMTB	21564-17-0	1.9E+03	n	2.5E+04	n					4.8E+02	n		3.3E+00	n	
				7.0E-02	I					1	0.1		Tebuthiuron	34014-18-1	4.4E+03	n	5.7E+04	n					1.4E+03	n		3.9E-01	n	
				2.0E-02	H					1	0.1		Temephos	3383-96-8	1.3E+03	n	1.6E+04	n					4.0E+02	n		7.6E+01	n	
				1.3E-02	I					1	0.1		Terbacil	5902-51-2	8.2E+02	n	1.1E+04	n					2.5E+02	n		7.5E-02	n	
				2.5E-05	H			V		1		3.1E+01	Terbufos	13071-79-9	2.0E+00	n	2.9E+01	n					2.4E-01	n		5.2E-04	n	
				1.0E-03	I					1	0.1		Terbutryn	886-50-0	6.3E+01	n	8.2E+02	n					1.3E+01	n		1.9E-02	n	
				1.0E-04	I					1	0.1		Tetrabromodiphenyl ether, 2,2',4,4'- (BDE-47)	5436-43-1	6.3E+00	n	8.2E+01	n					2.0E+00	n		5.3E-02	n	
				3.0E-04	I			V		1			Tetrachlorobenzene, 1,2,4,5-	95-94-3	2.3E+01	n	3.5E+02	n					1.7E+00	n		7.9E-03	n	
2.6E-02	I	7.4E-06	I	3.0E-02	I			V		1		6.8E+02	Tetrachloroethane, 1,1,1,2-	630-20-6	2.0E+00	c	8.8E+00	c	3.8E-01	c	1.7E+00	c	5.7E-01	c		2.2E-04	c	
2.0E-01	I	5.8E-05	C	2.0E-02	I			V		1		1.9E+03	Tetrachloroethane, 1,1,2,2-	79-34-5	6.0E-01	c	2.7E+00	c	4.8E-02	c	2.1E-01	c	7.6E-02	c		3.0E-05	c	
2.1E-03	I	2.6E-07	I	6.0E-03	I	4.0E-02	I	V		1		1.7E+02	Tetrachloroethylene	127-18-4	2.4E+01	c**	1.0E+02	c**	1.1E+01	c**	4.7E+01	c**	1.1E+01	c**	5.0E+00	5.1E-03	c**	2.3E-03
				3.0E-02	I					1	0.1		Tetrachlorophenol, 2,3,4,6-	58-90-2	1.9E+03	n	2.5E+04	n					2.4E+02	n		1.8E-01	n	
2.0E+01	H							V		1			Tetrachlorotoluene, p- alpha, alpha, alpha-	5216-25-1	3.5E-02	c	1.6E-01	c					1.3E-03	c		4.5E-06	c	
				5.0E-04	I					1	0.1		Tetraethyl Dithiopyrophosphate	3689-24-5	3.2E+01	n	4.1E+02	n					7.1E+00	n		5.2E-03	n	
						8.0E-01	I	V		1		2.1E+03	Tetrafluoroethane, 1,1,1,2-	811-97-2	1.0E+05	nms	4.3E+05	nms	8.3E+04	n	3.5E+05	n	1.7E+05	n		9.3E+01	n	
				2.0E-03	P					1	7E-04		Tetryl (Trinitrophenylmethylnitramine)	479-45-8	1.6E+02	n	2.3E+03	n					3.9E+01	n		3.7E-01	n	
				2.0E-05	S					1			Thallic Oxide	1314-32-5	1.6E+00	n	2.3E+01	n					4.0E-01	n			n	
				1.0E-05	X					1			Thallium (I) Nitrate	10102-45-1	7.8E-01	n	1.2E+01	n					2.0E-01	n			n	
				1.0E-05	X					1			Thallium (Soluble Salts)	7440-28-0	7.8E-01	n	1.2E+01	n					2.0E-01	n	2.0E+00	1.4E-02	n	1.4E-01
				1.0E-05	X			V		1			Thallium Acetate	563-68-8	7.8E-01	n	1.2E+01	n					2.0E-01	n		4.1E-05	n	
				2.0E-05	X			V		1			Thallium Carbonate	6533-73-9	1.6E+00	n	2.3E+01	n					4.0E-01	n		8.3E-05	n	
				1.0E-05	X					1			Thallium Chloride	7791-12-0	7.8E-01	n	1.2E+01	n					2.0E-01	n			n	
				1.0E-05	S					1			Thallium Selenite	12039-52-0	7.8E-01	n	1.2E+01	n					2.0E-01	n			n	
				2.0E-05	X					1			Thallium Sulfate	7446-18-6	1.6E+00	n	2.3E+01	n					4.0E-01	n			n	
				1.3E-02	I					1	0.1		Thifensulfuron-methyl	79277-27-3	8.2E+02	n	1.1E+04	n					2.6E+02	n		7.8E-02	n	
				1.0E-02	I					1	0.1		Thiobencarb	28249-77-6	6.3E+02	n	8.2E+03	n					1.6E+02	n		5.5E-01	n	
				7.0E-02	X					1	0.008		Thiodiglycol	111-48-8	5.4E+03	n	7.9E+04	n					1.4E+03	n		2.8E-01	n	
				3.0E-04	H					1	0.1		Thiofanox	39196-18-4	1.9E+01	n	2.5E+02	n					5.3E+00	n		1.8E-03	n	
				8.0E-02	I					1	0.1		Thiophanate, Methyl	23564-05-8	5.1E+03	n	6.6E+04	n					1.6E+03	n		1.4E+00	n	
				5.0E-03	I					1	0.1		Thiram	137-26-8	3.2E+02	n	4.1E+03	n					9.8E+01	n		1.4E-01	n	
				6.0E-01	H					1			Tin	7440-31-5	4.7E+04	n	7.0E+05	nm					1.2E+04	n		3.0E+03	n	
						1.0E-04	A	V		1			Titanium Tetrachloride	7550-45-0	1.4E+05	nm	6.0E+05	nm	1.0E-01	n	4.4E-01	n	2.1E-01	n			n	
				8.0E-02	I	5.0E+00	I	V		1		8.2E+02	Toluene	108-88-3	4.9E+03	ns	4.7E+04	ns	5.2E+03	n	2.2E+04	n	1.1E+03	n	1.0E+03	7.6E-01	n	6.9E-01
		1.1E-05	C			8.0E-06	C	V		1			Toluene-2,4-diisocyante	584-84-9	6.4E+00	n	2.7E+01	n	8.3E-03	n	3.5E-02	n	1.7E-02	n		2.5E-04	n	
1.8E-01	X			2.0E-04	X					1	0.1		Toluene-2,5-diamine	95-70-5	3.0E+00	c**	1.3E+01	c*					4.3E-01	c**		1.3E-04	c**	
		1.1E-05	C			8.0E-06	C	V		1		1.7E+03	Toluene-2,6-diisocyante	91-08-7	5.3E+00	n	2.2E+01	n	8.3E-03	n	3.5E-02	n	1.7E-02	n		2.6E-04	n	
1.6E-02	P	5.1E-05	C							1	0.1		Toluidine, o- (Methylaniline, 2-)	95-53-4	3.4E+01	c	1.4E+02	c	5.5E-02	c	2.4E-01	c	4.7E+00	c		2.0E-03	c	
3.0E-02	P			4.0E-03	X					1	0.1		Toluidine, p-	106-49-0	1.8E+01	c*	7.7E+01	c*					2.5E+00	c*		1.1E-03	c*	
				3.0E+00	P			V		1		3.4E-01	Total Petroleum Hydrocarbons (Aliphatic High)	NA	2.3E+05	nms	3.5E+06	nms					6.0E+04	n		2.4E+03	n	
						6.0E-01	P	V		1		1.4E+02	Total Petroleum Hydrocarbons (Aliphatic Low)	NA	5.2E+02	ns	2.2E+03	ns	6.3E+02	n	2.6E+03	n	1.3E+03	n		8.6E+00	n	
				1.0E-02	X	1.0E-01	P	V		1		6.9E+00	Total Petroleum Hydrocarbons (Aliphatic Medium)	NA	9.6E+01	ns	4.4E+02	ns	1.0E+02	n	4.4E+02	n	1.0E+02	n		1.5E+00	n	
				4.0E-02	P					1	0.1		Total Petroleum Hydrocarbons (Aromatic High)	NA	2.5E+03	n	3.3E+04	n					8.0E+02	n		8.9E+01	n	
				4.0E-03	P	3.0E-02	P	V		1		1.8E+03	Total Petroleum Hydrocarbons (Aromatic Low)	NA	8.2E+01	n	4.2E+02	n	3.1E+01	n	1.3E+02	n	3.3E+01	n		1.7E-02	n	
				4.0E-03	P	3.0E-03	P	V		1			Total Petroleum Hydrocarbons (Aromatic Medium)	NA	1.1E+02	n	6.0E+02	n	3.1E+00	n	1.3E+01	n	5.5E+00	n		2.3E-02	n	
1.1E+00	I	3.2E-04	I							1	0.1		Toxaphene	8001-35-2	4.9E-01	c	2.1E+00	c	8.8E-03	c	3.8E-02	c	7.1E-02	c	3.0E+00	1.1E-02	E	4.6E-01
				7.5E-03	I					1	0.1		Tralomethrin	66841-25-6	4.7E+02	n	6.2E+03	n					1.5E+02	n		5.8E+01	n	
				3.0E-04	A			V		1			Tri-n-butyltin	688-73-3	2.3E+01	n	3.5E+02	n					3.7E+00	n		8.2E-02	n	
				8.0E+01	X					1	0.1		Triacetin	102-76-1	5.1E+06	nm	6.6E+07	nm					1.6E+06	n		4.5E+02	n	
				3.0E-02	I					1	0.1		Triadimefon	43121-43-3	1.9E+03	n	2.5E+04	n					5.5E+02	n		4.4E-01	n	
				1.3E-02	I			V		1			Triallate	2303-17-5	1.0E+03	n	1.5E+04	n					1.2E+02	n		2.6E-01	n	
				1.0E-02	I					1	0.1		Triasulfuron	82097-50-5	6.3E+02	n	8.2E+03	n					2.0E+02	n		2.1E-01	n	
				8.0E-03	I					1	0.1		Tribenuron-methyl	101200-48-0	5.1E+02	n	6.6E+03	n					1.6E+02	n		6.1E-02	n	
				5.0E-03	I			V		1			Tribromobenzene, 1,2,4-	615-54-3	3.9E+02	n	5.8E+03	n					4.5E+01	n		6.4E-02	n	
9.0E-03	P			1.0E-02	P					1	0.1		Tributyl Phosphate	126-73-8	6.0E+01	c*	2.6E+02	c*					5.2E+00	c*		2.5E-02	c*	
				3.0E-04	P					1	0.1		Tributyltin Compounds	NA	1.9E+01	n	2.5E+02	n					6.0E+00	n			n	
				3.0E-04	I					1	0.1		Tributyltin Oxide	56-35-9	1.9E+01	n	2.5E+02	n					5.7E+00	n		2.9E+02	n	
				3.0E+01	I	3.0E+01	H	V		1		9.1E+02	Trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	4.0E+04	ns	1.7E+05	nms	3.1E+04	n	1.3E+05	n	5.5E+04	n		1.4E+02	n	
7.0E-02	I			2.0E-02	I					1	0.1		Trichloroacetic Acid	76-03-9	7.8E+00	c	3.3E+01	c					1.1E+00	c	6.0E+01	2.2E-04	c	1.2E-02
2.9E-02	H									1	0.1		Trichloroaniline HCl, 2,4,6-	33663-50-2	1.9E+01	c	7.9E+01	c					2.7E+00	c		7.4E-03	c	

TR=1E-C
THQ=1.

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = APPENDIX PPRTV SCREEN (See FAQ #27); H = HEAST; F = See FAQ; J = New Jersey; O = EPA Office of Water; E = see user guide Section 2.3.5; L = see user guide on lead; M = mutagen; S = see user guide Section 5; V = volatile; R = RBA applied (See User Guide for Arsenic notice) ; c = cancer; n = noncancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; SSL values are based on DAF=1; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide)

Toxicity and Chemical-specific Information												Contaminant		Screening Levels												Protection of Ground Water SSLs		
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	volatile	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	key	MCL-based SSL (mg/kg)
7.0E-03	X			3.0E-05	X					1	0.1		Trichloroaniline, 2,4,6-	634-93-5	1.9E+00	n	2.5E+01	n					4.0E-01	n		3.6E-03	n	
				8.0E-04	X			V		1			Trichlorobenzene, 1,2,3-	87-61-6	6.3E+01	n	9.3E+02	n					7.0E+00	n		2.1E-02	n	
2.9E-02	P			1.0E-02	I	2.0E-03	P	V		1		4.0E+02	Trichlorobenzene, 1,2,4-	120-82-1	2.4E+01	c**	1.1E+02	c**	2.1E+00	n	8.8E+00	n	1.2E+00	c**	7.0E+01	3.4E-03	c**	2.0E-01
				2.0E+00	I	5.0E+00	I	V		1		6.4E+02	Trichloroethane, 1,1,1-	71-55-6	8.1E+03	ns	3.6E+04	ns	5.2E+03	n	2.2E+04	n	8.0E+03	n	2.0E+02	2.8E+00	n	7.0E-02
5.7E-02	I	1.6E-05	I	4.0E-03	I	2.0E-04	X	V		1		2.2E+03	Trichloroethane, 1,1,2-	79-00-5	1.1E+00	c**	5.0E+00	c**	1.8E-01	c**	7.7E-01	c**	2.8E-01	c**	5.0E+00	8.9E-05	c**	1.6E-03
4.6E-02	I	4.1E-06	I	5.0E-04	I	2.0E-03	I	V	M	1		6.9E+02	Trichloroethylene	79-01-6	9.4E-01	c**	6.0E+00	c**	4.8E-01	c**	3.0E+00	c**	4.9E-01	c**	5.0E+00	1.8E-04	c**	1.8E-03
				3.0E-01	I			V		1		1.2E+03	Trichlorofluoromethane	75-69-4	2.3E+04	ns	3.5E+05	nms					5.2E+03	n		3.3E+00	n	
				1.0E-01	I					1	0.1		Trichlorophenol, 2,4,5-	95-95-4	6.3E+03	n	8.2E+04	n					1.2E+03	n		4.0E+00	n	
1.1E-02	I	3.1E-06	I	1.0E-03	P					1	0.1		Trichlorophenol, 2,4,6-	88-06-2	4.9E+01	c**	2.1E+02	c**	9.1E-01	c	4.0E+00	c	4.1E+00	c**		4.0E-03	c**	
				1.0E-02	I					1	0.1		Trichlorophenoxyacetic Acid, 2,4,5-	93-76-5	6.3E+02	n	8.2E+03	n					1.6E+02	n		6.8E-02	n	
				8.0E-03	I					1	0.1		Trichlorophenoxypropionic acid, -2,4,5	93-72-1	5.1E+02	n	6.6E+03	n					1.1E+02	n	5.0E+01	6.1E-02	n	2.8E-02
				5.0E-03	I			V		1		1.3E+03	Trichloropropane, 1,1,2-	598-77-6	3.9E+02	n	5.8E+03	ns					8.8E+01	n		3.5E-02	n	
3.0E+01	I			4.0E-03	I	3.0E-04	I	V	M	1		1.4E+03	Trichloropropane, 1,2,3-	96-18-4	5.1E-03	c	1.1E-01	c	3.1E-01	n	1.3E+00	n	7.5E-04	c		3.2E-07	c	
				3.0E-03	X	3.0E-04	P	V		1		3.1E+02	Trichloropropene, 1,2,3-	96-19-5	7.3E-01	n	3.1E+00	n	3.1E-01	n	1.3E+00	n	6.2E-01	n		3.1E-04	n	
				2.0E-02	A					1	0.1		Tricresyl Phosphate (TCP)	1330-78-5	1.3E+03	n	1.6E+04	n					1.6E+02	n		1.5E+01	n	
				3.0E-03	I					1	0.1		Tridiphane	58138-08-2	1.9E+02	n	2.5E+03	n					1.8E+01	n		1.3E-01	n	
						7.0E-03	I	V		1		2.8E+04	Triethylamine	121-44-8	1.2E+02	n	4.8E+02	n	7.3E+00	n	3.1E+01	n	1.5E+01	n		4.4E-03	n	
				2.0E+00	P					1	0.1		Triethylene Glycol	112-27-6	1.3E+05	nm	1.6E+06	nm					4.0E+04	n		8.8E+00	n	
						2.0E+01	P	V		1		4.8E+03	Trifluoroethane, 1,1,1-	420-46-2	1.5E+04	ns	6.2E+04	ns	2.1E+04	n	8.8E+04	n	4.2E+04	n		1.3E+02	n	
7.7E-03	I			7.5E-03	I			V		1			Trifluralin	1582-09-8	9.0E+01	c**	4.2E+02	c*					2.6E+00	c*		8.4E-02	c*	
2.0E-02	P			1.0E-02	P					1	0.1		Trimethyl Phosphate	512-56-1	2.7E+01	c*	1.1E+02	c*					3.9E+00	c*		8.6E-04	c*	
						5.0E-03	P	V		1		2.9E+02	Trimethylbenzene, 1,2,3-	526-73-8	4.9E+01	n	2.1E+02	n	5.2E+00	n	2.2E+01	n	1.0E+01	n		1.5E-02	n	
						7.0E-03	P	V		1		2.2E+02	Trimethylbenzene, 1,2,4-	95-63-6	5.8E+01	n	2.4E+02	ns	7.3E+00	n	3.1E+01	n	1.5E+01	n		2.1E-02	n	
				1.0E-02	X			V		1		1.8E+02	Trimethylbenzene, 1,3,5-	108-67-8	7.8E+02	ns	1.2E+04	ns					1.2E+02	n		1.7E-01	n	
				1.0E-02	X			V		1		3.0E+01	Trimethylpentene, 2,4,4-	25167-70-8	7.8E+02	ns	1.2E+04	ns					6.5E+01	n		2.2E-01	n	
				3.0E-02	I					1	0.019		Trinitrobenzene, 1,3,5-	99-35-4	2.2E+03	n	3.2E+04	n					5.9E+02	n		2.1E+00	n	
3.0E-02	I			5.0E-04	I					1	0.032		Trinitrotoluene, 2,4,6-	118-96-7	2.1E+01	c**	9.6E+01	c**					2.5E+00	c**		1.5E-02	c**	
				2.0E-02	P					1	0.1		Triphenylphosphine Oxide	791-28-6	1.3E+03	n	1.6E+04	n					3.6E+02	n		1.5E+00	n	
				2.0E-02	A					1	0.1		Tris(1,3-Dichloro-2-propyl) Phosphate	13674-87-8	1.3E+03	n	1.6E+04	n					3.6E+02	n		8.0E+00	n	
				1.0E-02	X					1	0.1		Tris(1-chloro-2-propyl)phosphate	13674-84-5	6.3E+02	n	8.2E+03	n					1.9E+02	n		6.5E-01	n	
2.3E+00	C	6.6E-04	C					V		1		4.7E+02	Tris(2,3-dibromopropyl)phosphate	126-72-7	2.8E-01	c	1.3E+00	c	4.3E-03	c	1.9E-02	c	6.8E-03	c		1.3E-04	c	
2.0E-02	P			7.0E-03	P					1	0.1		Tris(2-chloroethyl)phosphate	115-96-8	2.7E+01	c*	1.1E+02	c*					3.8E+00	c*		3.8E-03	c*	
3.2E-03	P			1.0E-01	P					1	0.1		Tris(2-ethylhexyl)phosphate	78-42-2	1.7E+02	c*	7.2E+02	c					2.4E+01	c*		1.2E+02	c*	
				8.0E-04	P					1			Tungsten	7440-33-7	6.3E+01	n	9.3E+02	n					1.6E+01	n		2.4E+00	n	
				3.0E-03	I	4.0E-05	A			1			Uranium (Soluble Salts)	NA	2.3E+02	n	3.5E+03	n	4.2E-02	n	1.8E-01	n	6.0E+01	n	3.0E+01	2.7E+01	n	1.4E+01
1.0E+00	C	2.9E-04	C						M	1	0.1		Urethane	51-79-6	1.2E-01	c	2.3E+00	c	3.5E-03	c	4.2E-02	c	2.5E-02	c		5.6E-06	c	
		8.3E-03	P	9.0E-03	I	7.0E-06	P			0.026			Vanadium Pentoxide	1314-62-1	4.6E+02	c**	2.0E+03	c**	3.4E-04	c*	1.5E-03	c*	1.5E+02	n			n	
				5.0E-03	S	1.0E-04	A			0.026			Vanadium and Compounds	7440-62-2	3.9E+02	n	5.8E+03	n	1.0E-01	n	4.4E-01	n	8.6E+01	n		8.6E+01	n	
				1.0E-03	I			V		1			Vernolate	1929-77-7	7.8E+01	n	1.2E+03	n					1.1E+01	n		8.9E-03	n	
				2.5E-02	I					1	0.1		Vinclozolin	50471-44-8	1.6E+03	n	2.1E+04	n					4.4E+02	n		3.4E-01	n	
				1.0E+00	H	2.0E-01	I	V		1		2.8E+03	Vinyl Acetate	108-05-4	9.1E+02	n	3.8E+03	ns	2.1E+02	n	8.8E+02	n	4.1E+02	n		8.7E-02	n	
		3.2E-05	H			3.0E-03	I	V		1		2.5E+03	Vinyl Bromide	593-60-2	1.2E-01	c*	5.2E-01	c*	8.8E-02	c*	3.8E-01	c*	1.8E-01	c*		5.1E-05	c*	
7.2E-01	I	4.4E-06	I	3.0E-03	I	1.0E-01	I	V	M	1		3.9E+03	Vinyl Chloride	75-01-4	5.9E-02	c	1.7E+00	c	1.7E-01	c	2.8E+00	c	1.9E-02	c	2.0E+00	6.5E-06	c	6.9E-04
				3.0E-04	I					1	0.1		Warfarin	81-81-2	1.9E+01	n	2.5E+02	n					5.6E+00	n		5.9E-03	n	
				2.0E-01	S	1.0E-01	S	V		1		3.9E+02	Xylene, P-	106-42-3	5.6E+02	ns	2.4E+03	ns	1.0E+02	n	4.4E+02	n	1.9E+02	n		1.9E-01	n	
				2.0E-01	S	1.0E-01	S	V		1		3.9E+02	Xylene, m-	108-38-3	5.5E+02	ns	2.4E+03	ns	1.0E+02	n	4.4E+02	n	1.9E+02	n		1.9E-01	n	
				2.0E-01	S	1.0E-01	S	V		1		4.3E+02	Xylene, o-	95-47-6	6.5E+02	ns	2.8E+03	ns	1.0E+02	n	4.4E+02	n	1.9E+02	n		1.9E-01	n	
				2.0E-01	I	1.0E-01	I	V		1		2.6E+02	Xylenes	1330-20-7	5.8E+02	ns	2.5E+03	ns	1.0E+02	n	4.4E+02	n	1.9E+02	n	1.0E+04	1.9E-01	n	9.9E+00
				3.0E-04	I					1			Zinc Phosphide	1314-84-7	2.3E+01	n	3.5E+02	n					6.0E+00	n			n	
				3.0E-01	I					1			Zinc and Compounds	7440-66-6	2.3E+04	n	3.5E+05	nm					6.0E+03	n		3.7E+02	n	
				5.0E-02	I					1	0.1		Zineb	12122-67-7	3.2E+03	n	4.1E+04	n					9.9E+02	n		2.9E+00	n	
				8.0E-05	X					1			Zirconium	7440-67-7	6.3E+00	n	9.3E+01	n					1.6E+00	n		4.8E+00	n	

TR=1E-0
HQ=1.0

APPENDIX D

SUMMARY OF EPA/NMED/RCRA ACTIVITY

2016 Major Refinery Activities and Events

January

- The annual Financial Assurance Cost Estimate was sent to the HWB.

February

- Approval With Modifications Investigation Work Plan OW-29 & OW-30 and North Drainage Ditch Areas

March

- The semi-annual pond sampling conducted.
- Annual Facility Wide Ground Water Monitoring Work Plan for 2017 submitted

April

- Submit Revised Facility Wide GW Monitoring Work Plan- 2012 Updates; 2013 Updates;2014 Updates for 2015
- Submit Revised Investigation Report SWMU 1 Aeration Basin and SWMU 14 Old API Separator

May

- Implement Investigation Work Plan for OW-29 and OW-30 Area and North Drainage Ditch
- Implement Investigation Work Plan for SWMUs 4 and 5
- Rejection Response to NMED Disapproval Revised Investigation Report SWMU 1 Aeration Basin and SWMU 14 Old API Separator
- Approval Extension Request Facility-Wide Ground Water Monitoring Work Plan - 2015 Updates

July

- Submit revised Interim Measures Report HC Seep Area
- Submit response to Notice of Violation regarding soil remediation during repair of wastewater pipeline

August

- Conducted annual groundwater sampling.

September

- The semi-annual pond sampling conducted.

October

- Submit third quarter status report for hydrocarbon seep area

December

- Submit SWMU 10 Investigation Report

Year 2016

- During numerous months of 2016, contractors performed repair/improvements to the evaporation pond earthen berms improving slope and stability.

APPENDIX E

SUMMARY OF ALL LEAKS, SPILLS AND RELEASES

2016 SPILL SUMMARY

January 2, 2016 – T-583 Ultra Low Sulfur Diesel

At 2040 hr on January 2, the offsites supervisor discovered the sandpiper pump for the distillate rundown line going to T-583 was leaking product to the ground surface. All liquid was contained within an earthen dike within the tank farm. The line was immediately blocked in. It was estimated that 34 bbls of Ultra Low Sulfur Diesel was spilled to the ground surface. The onsite vacuum truck began removing liquid from the spill area removing 30 to 32 bbls. Field screening was conducted and soil contamination was excavated and 139,188 pounds of non-hazardous soil was placed into lined roll-off boxes and shipped offsite for disposal.

January 7, 2016 – WWTP Carbon Canisters

At 2300 hr on January 7, wastewater operators were back washing the south carbon canister when wastewater was released from the rupture disk. A blocked valve downstream of the canister created pressure greater than 75 psi causing the rupture disk to rupture. The release duration was 20 minutes with an average flow of 96.6 gpm. Approximately 1,932 gallons (46 barrels) of wastewater was released. The wastewater filled the earthen dike containment and subsequently overflowed allowing the wastewater to travel downhill toward Pond EP-1 but not entering EP-1. A sample of the spilled liquid was collected and submitted to Westerns onsite lab which showed a benzene concentration of .45 mg/l. A vacuum truck was used to remove the treated wastewater from the affected area at the WWTP around the carbon canister containment area and the sloping downhill area. The vacuum truck removed 27 bbls from the containment area and an additional 5 to 7 bbl from the area downhill of the carbon canisters. On January 11, 2 to 3 inches of soil was removed from the area north of the containment structure and the lower level. Four cubic yards of soil was excavated and placed into a roll off box and sent offsite for disposal.

February 5, 2016 – T-714 FCC Feed Tank Overflow

At 0415 hr on February 5, the pumper gauger observed T-714 overflowing. Valves were blocked in and product was rerouted to T-701. The onsite fire department sprayed a blanket of foam and water over the entire affected area. A contract vacuum truck began removing liquids until further assessment could be determined. The cause of the release was failure of Pumper Technicians to identify and follow red zone procedures regarding safe fill height. The worst case volume released was 1,543 bbls of FCC feed. A contract company determined that in-situ solidification in roll off boxes would be required. The non-hazardous material (1,583.75 tons) was shipped offsite for disposal. Additional hot spot removal was conducted on August 10 and 31 and an additional 21.03 tons was disposed of offsite.

April 3, 2016 – Baker Tank – ASO Caustic Release

At 1145 hr on April 3, a load of caustic material from the API knock out drum was off loaded into a Baker Tank that was storing acid soluble oil. A chemical reaction occurred due to the mixing of incompatible wastes. The Baker Tank overflowed causing four barrels of the material to be spilled to the ground surface. The spilled material flowed south to the East Gate Road and then westward along the road. A vacuum truck removed the spill material from the ground and from within the Baker Tank plastic secondary containment. The remediation consisted of the initial remediation where six inches of soil was removed and placed into two roll-off bins and shipped offsite as a non-hazardous waste. Based on analytical results an additional excavation was required where an additional 6 inches of soil was removed and 19,480 pounds of soil was placed into a roll off box and disposed offsite.

June 1, 2016 – Alkylate Leak at Valve

At 1100 hr on June 1, Dexter was doing their valve and pump monitoring in the tank farm and found a small leak coming from a valve bonnet on the Pump Discharge to T-563 line. The line was depressured to T-563 and the leak stopped. One quarter gallon of alkylate reached the ground surface and was cleaned up by environmental.

June 12, 2016 – API Knock-out Drum Sump

At 1615 hr on June 12, hydrocarbon from the flare knock-out drum was being drained to the sump and one gallon leaked onto the ground and the remaining liquid was caught in a bucket. The small amount of stained soil was cleaned up by maintenance.

July 23, 2016 – T-106 Overfill Distillate Release

At 0900 hr to 0935 hr on July 23, during the KHT/DHT startup, T-228 was being transferred to T-106. In the process T-106 overfilled and 243 bbls of distillate spilled into the earthen containment. The containment also contained rainfall. A vacuum truck removed 286 bbls of distillate and water mixture which was recycled back to the WWTP. In late August soil cleanup was contracted out and a small bobcat was used with a vactor truck for the soils under the pipeline. Shovel work by hand was used for the tight spots. Some spill material got under the base of the tank and when the weather warmed up in September this material spread. This required an additional mobilization by the contractor who cleaned up the additional contaminated soil. Ten twenty cubic yard bins were filled with the soil (approximately 200 tons) and shipped offsite for disposal as a non-hazardous waste.

July 23, 2016 – PRV Oil/Water Release at GC Unit

The check valve on the 40# Steam to the Secondary Column failed, causing oil to back into the 40# steam header. The 40# steam PRV relieved causing a mixture of oil and steam that was released to atmosphere over the GAS CON unit, at 49 pounds for about 10 minutes. The total release was 13 bbl of which 1.5 bbl reached the ground surface while the rest stayed within the

unit on concrete and equipment. The maintenance department cleaned up the oil off the ground surface. Analytical indicates some soil removal will still be required in this area.

August 18, 2016 – Sewer Cup Overflow SWS Unit

At 0145 hr on August 18, an Operator discovered hydrocarbon and water mixture coming out of the sewer cups in the sour water stripper unit. St Run Water Wash level controller was found to be open possibly due to plugging in the bridle level controller, it was blocked in and eventually sewers stopped running over. AFFF foam was spread over the affected area to prevent fire danger. The release was estimated to be Straight Run/H2O mixture of approximately 200 gallons. A WO was written for maintenance to clean up soil. Cleanup has not been completed and environmental will now take charge of cleanup using third party.

August 23, 2016 – CTI Truck Hydrocarbon Overflow

At 1000 hr on August 23, Approximately 5 gallon of hydrocarbon over flowed off CTI's truck through the air valve that is located on top of the truck. Approximately 5 gallons of hydrocarbon leaked from T-35 to the south side of the lab building. The CTI truck was stopped and the truck operator was notified. The hydrocarbon was cleaned up and the truck valve was checked.

September 30 – Silver Strip Additive Cooling Tower

At 1920 hr on September 30, the Off-Sites supervisor was picking up some silver strip additive at cooling tower after unit operator filled buckets. While picking up a 5 gallon bucket, the handle broke on bucket spilling contents on ground. The spill was cleaned up.

October 5, 2016 – GE SPECAID Tote Leak

At 1245 hr on October 5, a tote of GE SPECAID 8Q5352ULS had a faulty valve and 1/2 gallon of chemical released to the ground (asphalt) at the warehouse yard. The chemical was mixed with oil dry and placed into a drum for shipment offsite as a hazardous waste.

APPENDIX F

TEMPORARY LAND FARM ANALYTICAL RESULTS

(ON ATTACHED CD)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 15, 2016

Ed Riege

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: OCD Central Landfarm Semiannual Sampling OrderNo.: 1606995

Dear Ed Riege:

Hall Environmental Analysis Laboratory received 9 sample(s) on 6/17/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-01-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 12:20:00 PM
Lab ID: 1606995-001
Matrix: SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	4.4	0.042	0.30		mg/Kg	1	6/27/2016 10:00:56 PM	26092
Chloride	330	12	30		mg/Kg	20	6/27/2016 10:13:21 PM	26092
Nitrogen, Nitrate (As N)	2.9	0.016	0.30		mg/Kg	1	6/27/2016 10:00:56 PM	26092
Sulfate	550	5.4	30		mg/Kg	20	6/27/2016 10:13:21 PM	26092
EPA METHOD 7471: MERCURY							Analyst: **DBD**	
Mercury	0.013	0.00053	0.031	J	mg/Kg	1	6/28/2016 9:21:40 AM	26093
EPA METHOD 6010B: SOIL METALS							Analyst: **MED**	
Arsenic	1.1	0.70	2.4	J	mg/Kg	1	6/30/2016 10:50:31 AM	26123
Barium	150	0.046	0.096		mg/Kg	1	6/30/2016 10:50:31 AM	26123
Cadmium	ND	0.061	0.096		mg/Kg	1	6/30/2016 10:50:31 AM	26123
Chromium	8.0	0.12	0.29		mg/Kg	1	6/30/2016 10:50:31 AM	26123
Copper	3.4	0.15	0.29		mg/Kg	1	6/30/2016 10:50:31 AM	26123
Iron	13000	93	240		mg/Kg	100	6/30/2016 10:31:34 AM	26123
Lead	3.2	0.17	0.24		mg/Kg	1	6/30/2016 10:50:31 AM	26123
Manganese	280	0.085	0.19		mg/Kg	2	6/30/2016 11:28:12 AM	26123
Selenium	ND	1.0	2.4		mg/Kg	1	6/30/2016 10:50:31 AM	26123
Silver	ND	0.030	0.24		mg/Kg	1	6/30/2016 10:50:31 AM	26123
Uranium	ND	0.95	4.8		mg/Kg	1	6/30/2016 10:50:31 AM	26123
Zinc	14	0.54	2.4		mg/Kg	1	6/30/2016 10:50:31 AM	26123
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	0.17	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Acenaphthylene	ND	0.16	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Aniline	ND	0.19	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Anthracene	ND	0.13	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Azobenzene	ND	0.24	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Benz(a)anthracene	ND	0.17	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Benzo(a)pyrene	ND	0.15	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Benzo(b)fluoranthene	ND	0.18	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Benzo(g,h,i)perylene	ND	0.17	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Benzo(k)fluoranthene	ND	0.17	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Benzoic acid	ND	0.16	0.99	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Benzyl alcohol	ND	0.16	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Bis(2-chloroethoxy)methane	ND	0.22	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Bis(2-chloroethyl)ether	ND	0.15	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Bis(2-chloroisopropyl)ether	ND	0.18	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Bis(2-ethylhexyl)phthalate	0.19	0.16	0.99	JD	mg/Kg	1	6/30/2016 2:11:19 PM	26116
4-Bromophenyl phenyl ether	ND	0.19	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Butyl benzyl phthalate	ND	0.18	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-01-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 12:20:00 PM
Lab ID: 1606995-001
Matrix: SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Carbazole	ND	0.13	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
4-Chloro-3-methylphenol	ND	0.24	0.99	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
4-Chloroaniline	ND	0.22	0.99	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
2-Chloronaphthalene	ND	0.16	0.50	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
2-Chlorophenol	ND	0.16	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
4-Chlorophenyl phenyl ether	ND	0.23	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Chrysene	ND	0.17	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Di-n-butyl phthalate	0.17	0.15	0.79	JD	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Di-n-octyl phthalate	ND	0.17	0.79	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Dibenz(a,h)anthracene	ND	0.16	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Dibenzofuran	ND	0.20	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
1,2-Dichlorobenzene	ND	0.15	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
1,3-Dichlorobenzene	ND	0.15	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
1,4-Dichlorobenzene	ND	0.17	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
3,3´-Dichlorobenzidine	ND	0.15	0.50	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Diethyl phthalate	ND	0.20	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Dimethyl phthalate	ND	0.19	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
2,4-Dichlorophenol	ND	0.18	0.79	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
2,4-Dimethylphenol	ND	0.22	0.60	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
4,6-Dinitro-2-methylphenol	ND	0.12	0.79	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
2,4-Dinitrophenol	ND	0.13	0.99	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
2,4-Dinitrotoluene	ND	0.18	0.99	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
2,6-Dinitrotoluene	ND	0.21	0.99	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Fluoranthene	ND	0.11	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Fluorene	ND	0.18	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Hexachlorobenzene	ND	0.16	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Hexachlorobutadiene	ND	0.22	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Hexachlorocyclopentadiene	ND	0.23	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Hexachloroethane	ND	0.17	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Indeno(1,2,3-cd)pyrene	ND	0.15	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
1-Methylnaphthalene	ND	0.20	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
2-Methylnaphthalene	ND	0.24	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
2-Methylphenol	ND	0.17	0.79	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
3+4-Methylphenol	ND	0.14	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
N-Nitrosodi-n-propylamine	ND	0.19	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
N-Nitrosodiphenylamine	ND	0.19	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Naphthalene	ND	0.19	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
2-Nitroaniline	ND	0.21	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
3-Nitroaniline	ND	0.17	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-01-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 12:20:00 PM
Lab ID: 1606995-001 **Matrix:** SOIL **Received Date:** 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
4-Nitroaniline	ND	0.14	0.79	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Nitrobenzene	ND	0.20	0.79	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
2-Nitrophenol	ND	0.20	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
4-Nitrophenol	ND	0.15	0.50	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Pentachlorophenol	ND	0.13	0.79	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Phenanthrene	ND	0.13	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Phenol	ND	0.15	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Pyrene	ND	0.15	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Pyridine	ND	0.16	0.79	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
1,2,4-Trichlorobenzene	ND	0.21	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
2,4,5-Trichlorophenol	ND	0.20	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
2,4,6-Trichlorophenol	ND	0.16	0.40	D	mg/Kg	1	6/30/2016 2:11:19 PM	26116
Surr: 2-Fluorophenol	63.8	0	28.3-102	D	%Rec	1	6/30/2016 2:11:19 PM	26116
Surr: Phenol-d5	69.5	0	35.7-103	D	%Rec	1	6/30/2016 2:11:19 PM	26116
Surr: 2,4,6-Tribromophenol	80.0	0	35.2-108	D	%Rec	1	6/30/2016 2:11:19 PM	26116
Surr: Nitrobenzene-d5	75.2		24-118	D	%Rec	1	6/30/2016 2:11:19 PM	26116
Surr: 2-Fluorobiphenyl	86.6		35.4-111	D	%Rec	1	6/30/2016 2:11:19 PM	26116
Surr: 4-Terphenyl-d14	65.6		15-91.7	D	%Rec	1	6/30/2016 2:11:19 PM	26116
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.018	0.023		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Toluene	ND	0.0027	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Ethylbenzene	ND	0.0037	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Methyl tert-butyl ether (MTBE)	ND	0.014	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
1,2,4-Trimethylbenzene	ND	0.0034	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
1,3,5-Trimethylbenzene	ND	0.0033	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
1,2-Dichloroethane (EDC)	ND	0.012	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
1,2-Dibromoethane (EDB)	ND	0.0032	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Naphthalene	ND	0.0071	0.091		mg/Kg	1	6/20/2016 8:01:30 PM	25923
1-Methylnaphthalene	ND	0.010	0.18		mg/Kg	1	6/20/2016 8:01:30 PM	25923
2-Methylnaphthalene	ND	0.0098	0.18		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Acetone	ND	0.059	0.68		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Bromobenzene	ND	0.0037	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Bromodichloromethane	ND	0.0027	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Bromoform	ND	0.0056	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Bromomethane	0.019	0.017	0.14	J	mg/Kg	1	6/20/2016 8:01:30 PM	25923
2-Butanone	ND	0.026	0.46		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Carbon disulfide	ND	0.015	0.46		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Carbon tetrachloride	ND	0.0030	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Chlorobenzene	ND	0.0037	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-01-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 12:20:00 PM
Lab ID: 1606995-001 **Matrix:** SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Chloroethane	ND	0.0091	0.091		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Chloroform	ND	0.0034	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Chloromethane	0.081	0.0041	0.14	J	mg/Kg	1	6/20/2016 8:01:30 PM	25923
2-Chlorotoluene	ND	0.0034	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
4-Chlorotoluene	ND	0.0040	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
cis-1,2-DCE	ND	0.0027	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
cis-1,3-Dichloropropene	ND	0.0042	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
1,2-Dibromo-3-chloropropane	ND	0.014	0.091		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Dibromochloromethane	ND	0.0041	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Dibromomethane	ND	0.0040	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
1,2-Dichlorobenzene	ND	0.0040	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
1,3-Dichlorobenzene	ND	0.0037	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
1,4-Dichlorobenzene	ND	0.0057	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Dichlorodifluoromethane	ND	0.014	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
1,1-Dichloroethane	ND	0.0025	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
1,1-Dichloroethene	ND	0.015	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
1,2-Dichloropropane	ND	0.0038	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
1,3-Dichloropropane	ND	0.0052	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
2,2-Dichloropropane	ND	0.0026	0.091		mg/Kg	1	6/20/2016 8:01:30 PM	25923
1,1-Dichloropropene	ND	0.0036	0.091		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Hexachlorobutadiene	ND	0.0056	0.091		mg/Kg	1	6/20/2016 8:01:30 PM	25923
2-Hexanone	ND	0.025	0.46		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Isopropylbenzene	ND	0.0039	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
4-Isopropyltoluene	ND	0.0041	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
4-Methyl-2-pentanone	ND	0.013	0.46		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Methylene chloride	ND	0.013	0.14		mg/Kg	1	6/20/2016 8:01:30 PM	25923
n-Butylbenzene	ND	0.0040	0.14		mg/Kg	1	6/20/2016 8:01:30 PM	25923
n-Propylbenzene	ND	0.0035	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
sec-Butylbenzene	ND	0.0063	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Styrene	ND	0.0041	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
tert-Butylbenzene	ND	0.0038	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
1,1,1,2-Tetrachloroethane	ND	0.0044	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
1,1,2,2-Tetrachloroethane	ND	0.0074	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Tetrachloroethene (PCE)	ND	0.0038	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
trans-1,2-DCE	ND	0.013	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
trans-1,3-Dichloropropene	ND	0.0067	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
1,2,3-Trichlorobenzene	ND	0.0068	0.091		mg/Kg	1	6/20/2016 8:01:30 PM	25923
1,2,4-Trichlorobenzene	ND	0.0049	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
1,1,1-Trichloroethane	ND	0.0028	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-01-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 12:20:00 PM
Lab ID: 1606995-001 **Matrix:** SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,1,2-Trichloroethane	ND	0.0054	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Trichloroethene (TCE)	ND	0.0049	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Trichlorofluoromethane	ND	0.0034	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
1,2,3-Trichloropropane	ND	0.0079	0.091		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Vinyl chloride	ND	0.0037	0.046		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Xylenes, Total	ND	0.0086	0.091		mg/Kg	1	6/20/2016 8:01:30 PM	25923
Surr: Dibromofluoromethane	108		70-130		%Rec	1	6/20/2016 8:01:30 PM	25923
Surr: 1,2-Dichloroethane-d4	106		70-130		%Rec	1	6/20/2016 8:01:30 PM	25923
Surr: Toluene-d8	95.3		70-130		%Rec	1	6/20/2016 8:01:30 PM	25923
Surr: 4-Bromofluorobenzene	98.7		70-130		%Rec	1	6/20/2016 8:01:30 PM	25923
EPA METHOD 418.1: TPH							Analyst: **TOM**	
Petroleum Hydrocarbons, TR	33	8.5	20		mg/Kg	1	6/23/2016	25996

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-02-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 12:50:00 PM
Lab ID: 1606995-002
Matrix: SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	3.4	0.042	0.30		mg/Kg	1	6/27/2016 10:25:45 PM	26092
Chloride	350	12	30		mg/Kg	20	6/27/2016 10:38:10 PM	26092
Nitrogen, Nitrate (As N)	8.8	0.016	0.30		mg/Kg	1	6/27/2016 10:25:45 PM	26092
Sulfate	400	5.4	30		mg/Kg	20	6/27/2016 10:38:10 PM	26092
EPA METHOD 7471: MERCURY							Analyst: **DBD**	
Mercury	0.0033	0.00057	0.033	J	mg/Kg	1	6/28/2016 9:25:13 AM	26093
EPA METHOD 6010B: SOIL METALS							Analyst: **MED**	
Arsenic	0.88	0.71	2.4	J	mg/Kg	1	6/30/2016 3:45:33 PM	26123
Barium	170	0.047	0.098		mg/Kg	1	6/30/2016 3:45:33 PM	26123
Cadmium	ND	0.062	0.098		mg/Kg	1	6/30/2016 3:45:33 PM	26123
Chromium	8.1	0.12	0.29		mg/Kg	1	6/30/2016 3:45:33 PM	26123
Copper	2.4	0.15	0.29		mg/Kg	1	6/30/2016 3:45:33 PM	26123
Iron	13000	95	240		mg/Kg	100	6/30/2016 10:33:05 AM	26123
Lead	3.6	0.17	0.24		mg/Kg	1	6/30/2016 3:45:33 PM	26123
Manganese	230	0.043	0.098		mg/Kg	1	6/30/2016 3:45:33 PM	26123
Selenium	ND	1.1	2.4		mg/Kg	1	6/30/2016 3:45:33 PM	26123
Silver	ND	0.031	0.24		mg/Kg	1	6/30/2016 3:45:33 PM	26123
Uranium	ND	0.97	4.9		mg/Kg	1	6/30/2016 3:45:33 PM	26123
Zinc	13	0.56	2.4		mg/Kg	1	6/30/2016 3:45:33 PM	26123
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	0.085	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Acenaphthylene	ND	0.081	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Aniline	ND	0.094	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Anthracene	ND	0.066	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Azobenzene	ND	0.12	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Benz(a)anthracene	ND	0.086	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Benzo(a)pyrene	ND	0.075	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Benzo(b)fluoranthene	ND	0.090	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Benzo(g,h,i)perylene	ND	0.088	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Benzo(k)fluoranthene	ND	0.088	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Benzoic acid	ND	0.082	0.50		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Benzyl alcohol	ND	0.078	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Bis(2-chloroethoxy)methane	ND	0.11	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Bis(2-chloroethyl)ether	ND	0.073	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Bis(2-chloroisopropyl)ether	ND	0.089	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Bis(2-ethylhexyl)phthalate	0.10	0.081	0.50	J	mg/Kg	1	6/30/2016 2:39:19 PM	26116
4-Bromophenyl phenyl ether	ND	0.095	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Butyl benzyl phthalate	ND	0.088	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-02-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 12:50:00 PM
Lab ID: 1606995-002 **Matrix:** SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Carbazole	ND	0.067	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
4-Chloro-3-methylphenol	ND	0.12	0.50		mg/Kg	1	6/30/2016 2:39:19 PM	26116
4-Chloroaniline	ND	0.11	0.50		mg/Kg	1	6/30/2016 2:39:19 PM	26116
2-Chloronaphthalene	ND	0.078	0.25		mg/Kg	1	6/30/2016 2:39:19 PM	26116
2-Chlorophenol	ND	0.078	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
4-Chlorophenyl phenyl ether	ND	0.11	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Chrysene	ND	0.085	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Di-n-butyl phthalate	0.092	0.074	0.40	J	mg/Kg	1	6/30/2016 2:39:19 PM	26116
Di-n-octyl phthalate	ND	0.085	0.40		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Dibenz(a,h)anthracene	ND	0.080	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Dibenzofuran	ND	0.10	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
1,2-Dichlorobenzene	ND	0.076	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
1,3-Dichlorobenzene	ND	0.077	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
1,4-Dichlorobenzene	ND	0.084	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
3,3´-Dichlorobenzidine	ND	0.073	0.25		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Diethyl phthalate	ND	0.10	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Dimethyl phthalate	ND	0.097	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
2,4-Dichlorophenol	ND	0.093	0.40		mg/Kg	1	6/30/2016 2:39:19 PM	26116
2,4-Dimethylphenol	ND	0.11	0.30		mg/Kg	1	6/30/2016 2:39:19 PM	26116
4,6-Dinitro-2-methylphenol	ND	0.060	0.40		mg/Kg	1	6/30/2016 2:39:19 PM	26116
2,4-Dinitrophenol	ND	0.066	0.50		mg/Kg	1	6/30/2016 2:39:19 PM	26116
2,4-Dinitrotoluene	ND	0.089	0.50		mg/Kg	1	6/30/2016 2:39:19 PM	26116
2,6-Dinitrotoluene	ND	0.11	0.50		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Fluoranthene	ND	0.057	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Fluorene	ND	0.091	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Hexachlorobenzene	ND	0.078	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Hexachlorobutadiene	ND	0.11	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Hexachlorocyclopentadiene	ND	0.11	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Hexachloroethane	ND	0.085	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Indeno(1,2,3-cd)pyrene	ND	0.078	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
1-Methylnaphthalene	ND	0.10	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
2-Methylnaphthalene	ND	0.12	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
2-Methylphenol	ND	0.083	0.40		mg/Kg	1	6/30/2016 2:39:19 PM	26116
3+4-Methylphenol	ND	0.072	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
N-Nitrosodi-n-propylamine	ND	0.096	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
N-Nitrosodiphenylamine	ND	0.097	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Naphthalene	ND	0.095	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
2-Nitroaniline	ND	0.11	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
3-Nitroaniline	ND	0.088	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-02-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 12:50:00 PM
Lab ID: 1606995-002 **Matrix:** SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
4-Nitroaniline	ND	0.070	0.40		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Nitrobenzene	ND	0.10	0.40		mg/Kg	1	6/30/2016 2:39:19 PM	26116
2-Nitrophenol	ND	0.099	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
4-Nitrophenol	ND	0.076	0.25		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Pentachlorophenol	ND	0.064	0.40		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Phenanthrene	ND	0.068	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Phenol	ND	0.075	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Pyrene	ND	0.075	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Pyridine	ND	0.079	0.40		mg/Kg	1	6/30/2016 2:39:19 PM	26116
1,2,4-Trichlorobenzene	ND	0.11	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
2,4,5-Trichlorophenol	ND	0.10	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
2,4,6-Trichlorophenol	ND	0.083	0.20		mg/Kg	1	6/30/2016 2:39:19 PM	26116
Surr: 2-Fluorophenol	59.5	0	28.3-102		%Rec	1	6/30/2016 2:39:19 PM	26116
Surr: Phenol-d5	69.6	0	35.7-103		%Rec	1	6/30/2016 2:39:19 PM	26116
Surr: 2,4,6-Tribromophenol	80.2	0	35.2-108		%Rec	1	6/30/2016 2:39:19 PM	26116
Surr: Nitrobenzene-d5	68.1		24-118		%Rec	1	6/30/2016 2:39:19 PM	26116
Surr: 2-Fluorobiphenyl	75.7		35.4-111		%Rec	1	6/30/2016 2:39:19 PM	26116
Surr: 4-Terphenyl-d14	58.0		15-91.7		%Rec	1	6/30/2016 2:39:19 PM	26116
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.020	0.025		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Toluene	ND	0.0030	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Ethylbenzene	ND	0.0041	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Methyl tert-butyl ether (MTBE)	ND	0.016	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
1,2,4-Trimethylbenzene	ND	0.0037	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
1,3,5-Trimethylbenzene	ND	0.0036	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
1,2-Dichloroethane (EDC)	ND	0.013	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
1,2-Dibromoethane (EDB)	ND	0.0035	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Naphthalene	ND	0.0078	0.10		mg/Kg	1	6/20/2016 8:29:59 PM	25923
1-Methylnaphthalene	ND	0.011	0.20		mg/Kg	1	6/20/2016 8:29:59 PM	25923
2-Methylnaphthalene	ND	0.011	0.20		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Acetone	ND	0.064	0.75		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Bromobenzene	ND	0.0040	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Bromodichloromethane	ND	0.0029	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Bromoform	ND	0.0061	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Bromomethane	ND	0.018	0.15		mg/Kg	1	6/20/2016 8:29:59 PM	25923
2-Butanone	ND	0.028	0.50		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Carbon disulfide	ND	0.016	0.50		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Carbon tetrachloride	ND	0.0033	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Chlorobenzene	ND	0.0041	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-02-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 12:50:00 PM
Lab ID: 1606995-002 **Matrix:** SOIL **Received Date:** 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Chloroethane	ND	0.0099	0.10		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Chloroform	ND	0.0038	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Chloromethane	0.080	0.0044	0.15	J	mg/Kg	1	6/20/2016 8:29:59 PM	25923
2-Chlorotoluene	ND	0.0037	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
4-Chlorotoluene	ND	0.0044	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
cis-1,2-DCE	ND	0.0029	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
cis-1,3-Dichloropropene	ND	0.0046	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
1,2-Dibromo-3-chloropropane	ND	0.015	0.10		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Dibromochloromethane	ND	0.0045	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Dibromomethane	ND	0.0043	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
1,2-Dichlorobenzene	ND	0.0043	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
1,3-Dichlorobenzene	ND	0.0041	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
1,4-Dichlorobenzene	ND	0.0062	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Dichlorodifluoromethane	ND	0.015	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
1,1-Dichloroethane	ND	0.0027	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
1,1-Dichloroethene	ND	0.016	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
1,2-Dichloropropane	ND	0.0042	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
1,3-Dichloropropane	ND	0.0057	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
2,2-Dichloropropane	ND	0.0029	0.10		mg/Kg	1	6/20/2016 8:29:59 PM	25923
1,1-Dichloropropene	ND	0.0040	0.10		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Hexachlorobutadiene	ND	0.0061	0.10		mg/Kg	1	6/20/2016 8:29:59 PM	25923
2-Hexanone	ND	0.027	0.50		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Isopropylbenzene	ND	0.0043	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
4-Isopropyltoluene	ND	0.0045	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
4-Methyl-2-pentanone	ND	0.015	0.50		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Methylene chloride	ND	0.014	0.15		mg/Kg	1	6/20/2016 8:29:59 PM	25923
n-Butylbenzene	ND	0.0044	0.15		mg/Kg	1	6/20/2016 8:29:59 PM	25923
n-Propylbenzene	ND	0.0038	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
sec-Butylbenzene	ND	0.0069	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Styrene	ND	0.0045	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
tert-Butylbenzene	ND	0.0041	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
1,1,1,2-Tetrachloroethane	ND	0.0048	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
1,1,2,2-Tetrachloroethane	ND	0.0081	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Tetrachloroethene (PCE)	ND	0.0041	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
trans-1,2-DCE	ND	0.014	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
trans-1,3-Dichloropropene	ND	0.0073	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
1,2,3-Trichlorobenzene	ND	0.0075	0.10		mg/Kg	1	6/20/2016 8:29:59 PM	25923
1,2,4-Trichlorobenzene	ND	0.0053	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
1,1,1-Trichloroethane	ND	0.0030	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-02-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 12:50:00 PM
Lab ID: 1606995-002 **Matrix:** SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,1,2-Trichloroethane	ND	0.0059	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Trichloroethene (TCE)	ND	0.0053	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Trichlorofluoromethane	ND	0.0037	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
1,2,3-Trichloropropane	ND	0.0086	0.10		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Vinyl chloride	ND	0.0041	0.050		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Xylenes, Total	ND	0.0094	0.10		mg/Kg	1	6/20/2016 8:29:59 PM	25923
Surr: Dibromofluoromethane	105		70-130		%Rec	1	6/20/2016 8:29:59 PM	25923
Surr: 1,2-Dichloroethane-d4	97.2		70-130		%Rec	1	6/20/2016 8:29:59 PM	25923
Surr: Toluene-d8	95.7		70-130		%Rec	1	6/20/2016 8:29:59 PM	25923
Surr: 4-Bromofluorobenzene	101		70-130		%Rec	1	6/20/2016 8:29:59 PM	25923
EPA METHOD 418.1: TPH							Analyst: **TOM**	
Petroleum Hydrocarbons, TR	ND	8.0	19		mg/Kg	1	6/23/2016	25996

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-03-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 1:20:00 PM
Lab ID: 1606995-003
Matrix: SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	2.6	0.042	0.30		mg/Kg	1	6/27/2016 10:50:35 PM	26092
Chloride	570	12	30		mg/Kg	20	6/27/2016 11:02:59 PM	26092
Nitrogen, Nitrate (As N)	21	0.32	6.0		mg/Kg	20	6/27/2016 11:02:59 PM	26092
Sulfate	540	5.4	30		mg/Kg	20	6/27/2016 11:02:59 PM	26092
EPA METHOD 7471: MERCURY							Analyst: **DBD**	
Mercury	0.0048	0.00058	0.034	J	mg/Kg	1	6/28/2016 9:34:18 AM	26093
EPA METHOD 6010B: SOIL METALS							Analyst: **MED**	
Arsenic	ND	1.5	5.1		mg/Kg	2	6/30/2016 11:41:01 AM	26123
Barium	220	0.099	0.20		mg/Kg	2	6/30/2016 11:41:01 AM	26123
Cadmium	ND	0.13	0.20		mg/Kg	2	6/30/2016 11:41:01 AM	26123
Chromium	11	0.26	0.61		mg/Kg	2	6/30/2016 11:41:01 AM	26123
Copper	3.4	0.32	0.61		mg/Kg	2	6/30/2016 11:41:01 AM	26123
Iron	17000	100	260		mg/Kg	100	6/30/2016 10:34:35 AM	26123
Lead	4.7	0.36	0.51		mg/Kg	2	6/30/2016 11:41:01 AM	26123
Manganese	290	0.091	0.20		mg/Kg	2	6/30/2016 11:41:01 AM	26123
Selenium	ND	2.2	5.1		mg/Kg	2	6/30/2016 11:41:01 AM	26123
Silver	ND	0.065	0.51		mg/Kg	2	6/30/2016 11:41:01 AM	26123
Uranium	ND	2.0	10		mg/Kg	2	6/30/2016 11:41:01 AM	26123
Zinc	18	1.2	5.1		mg/Kg	2	6/30/2016 11:41:01 AM	26123
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	0.086	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Acenaphthylene	ND	0.081	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Aniline	ND	0.095	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Anthracene	ND	0.066	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Azobenzene	ND	0.12	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Benz(a)anthracene	ND	0.086	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Benzo(a)pyrene	ND	0.076	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Benzo(b)fluoranthene	ND	0.090	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Benzo(g,h,i)perylene	ND	0.088	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Benzo(k)fluoranthene	ND	0.088	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Benzoic acid	ND	0.083	0.50		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Benzyl alcohol	ND	0.078	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Bis(2-chloroethoxy)methane	ND	0.11	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Bis(2-chloroethyl)ether	ND	0.074	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Bis(2-chloroisopropyl)ether	ND	0.089	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Bis(2-ethylhexyl)phthalate	0.11	0.082	0.50	J	mg/Kg	1	6/30/2016 4:03:22 PM	26116
4-Bromophenyl phenyl ether	ND	0.096	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Butyl benzyl phthalate	ND	0.089	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-03-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 1:20:00 PM
Lab ID: 1606995-003
Matrix: SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Carbazole	ND	0.068	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
4-Chloro-3-methylphenol	ND	0.12	0.50		mg/Kg	1	6/30/2016 4:03:22 PM	26116
4-Chloroaniline	ND	0.11	0.50		mg/Kg	1	6/30/2016 4:03:22 PM	26116
2-Chloronaphthalene	ND	0.079	0.25		mg/Kg	1	6/30/2016 4:03:22 PM	26116
2-Chlorophenol	ND	0.079	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
4-Chlorophenyl phenyl ether	ND	0.11	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Chrysene	ND	0.085	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Di-n-butyl phthalate	ND	0.075	0.40		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Di-n-octyl phthalate	ND	0.085	0.40		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Dibenz(a,h)anthracene	ND	0.081	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Dibenzofuran	ND	0.10	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
1,2-Dichlorobenzene	ND	0.077	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
1,3-Dichlorobenzene	ND	0.077	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
1,4-Dichlorobenzene	ND	0.085	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
3,3´-Dichlorobenzidine	ND	0.074	0.25		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Diethyl phthalate	ND	0.10	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Dimethyl phthalate	ND	0.098	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
2,4-Dichlorophenol	ND	0.093	0.40		mg/Kg	1	6/30/2016 4:03:22 PM	26116
2,4-Dimethylphenol	ND	0.11	0.30		mg/Kg	1	6/30/2016 4:03:22 PM	26116
4,6-Dinitro-2-methylphenol	ND	0.060	0.40		mg/Kg	1	6/30/2016 4:03:22 PM	26116
2,4-Dinitrophenol	ND	0.066	0.50		mg/Kg	1	6/30/2016 4:03:22 PM	26116
2,4-Dinitrotoluene	ND	0.089	0.50		mg/Kg	1	6/30/2016 4:03:22 PM	26116
2,6-Dinitrotoluene	ND	0.11	0.50		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Fluoranthene	ND	0.058	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Fluorene	ND	0.092	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Hexachlorobenzene	ND	0.079	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Hexachlorobutadiene	ND	0.11	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Hexachlorocyclopentadiene	ND	0.11	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Hexachloroethane	ND	0.086	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Indeno(1,2,3-cd)pyrene	ND	0.078	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
1-Methylnaphthalene	ND	0.10	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
2-Methylnaphthalene	ND	0.12	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
2-Methylphenol	ND	0.084	0.40		mg/Kg	1	6/30/2016 4:03:22 PM	26116
3+4-Methylphenol	ND	0.072	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
N-Nitrosodi-n-propylamine	ND	0.096	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
N-Nitrosodiphenylamine	ND	0.098	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Naphthalene	ND	0.096	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
2-Nitroaniline	ND	0.11	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
3-Nitroaniline	ND	0.088	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-03-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 1:20:00 PM
Lab ID: 1606995-003
Matrix: SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
4-Nitroaniline	ND	0.071	0.40		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Nitrobenzene	ND	0.10	0.40		mg/Kg	1	6/30/2016 4:03:22 PM	26116
2-Nitrophenol	ND	0.099	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
4-Nitrophenol	ND	0.076	0.25		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Pentachlorophenol	ND	0.064	0.40		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Phenanthrene	ND	0.068	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Phenol	ND	0.075	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Pyrene	ND	0.076	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Pyridine	ND	0.079	0.40		mg/Kg	1	6/30/2016 4:03:22 PM	26116
1,2,4-Trichlorobenzene	ND	0.11	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
2,4,5-Trichlorophenol	ND	0.10	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
2,4,6-Trichlorophenol	ND	0.083	0.20		mg/Kg	1	6/30/2016 4:03:22 PM	26116
Surr: 2-Fluorophenol	50.9	0	28.3-102		%Rec	1	6/30/2016 4:03:22 PM	26116
Surr: Phenol-d5	59.5	0	35.7-103		%Rec	1	6/30/2016 4:03:22 PM	26116
Surr: 2,4,6-Tribromophenol	73.1	0	35.2-108		%Rec	1	6/30/2016 4:03:22 PM	26116
Surr: Nitrobenzene-d5	59.0		24-118		%Rec	1	6/30/2016 4:03:22 PM	26116
Surr: 2-Fluorobiphenyl	72.0		35.4-111		%Rec	1	6/30/2016 4:03:22 PM	26116
Surr: 4-Terphenyl-d14	59.7		15-91.7		%Rec	1	6/30/2016 4:03:22 PM	26116
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.019	0.024		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Toluene	ND	0.0029	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Ethylbenzene	ND	0.0040	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Methyl tert-butyl ether (MTBE)	ND	0.015	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
1,2,4-Trimethylbenzene	ND	0.0036	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
1,3,5-Trimethylbenzene	ND	0.0035	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
1,2-Dichloroethane (EDC)	ND	0.013	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
1,2-Dibromoethane (EDB)	ND	0.0034	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Naphthalene	ND	0.0076	0.097		mg/Kg	1	6/20/2016 9:55:03 PM	25923
1-Methylnaphthalene	ND	0.011	0.19		mg/Kg	1	6/20/2016 9:55:03 PM	25923
2-Methylnaphthalene	ND	0.010	0.19		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Acetone	ND	0.063	0.73		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Bromobenzene	ND	0.0039	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Bromodichloromethane	ND	0.0028	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Bromoform	ND	0.0059	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Bromomethane	0.018	0.018	0.15	J	mg/Kg	1	6/20/2016 9:55:03 PM	25923
2-Butanone	ND	0.028	0.48		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Carbon disulfide	ND	0.016	0.48		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Carbon tetrachloride	ND	0.0032	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Chlorobenzene	ND	0.0039	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-03-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 1:20:00 PM
Lab ID: 1606995-003
Matrix: SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Chloroethane	ND	0.0096	0.097		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Chloroform	ND	0.0036	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Chloromethane	0.070	0.0043	0.15	J	mg/Kg	1	6/20/2016 9:55:03 PM	25923
2-Chlorotoluene	ND	0.0036	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
4-Chlorotoluene	ND	0.0043	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
cis-1,2-DCE	ND	0.0028	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
cis-1,3-Dichloropropene	ND	0.0045	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
1,2-Dibromo-3-chloropropane	ND	0.015	0.097		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Dibromochloromethane	ND	0.0044	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Dibromomethane	ND	0.0042	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
1,2-Dichlorobenzene	ND	0.0042	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
1,3-Dichlorobenzene	ND	0.0040	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
1,4-Dichlorobenzene	ND	0.0060	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Dichlorodifluoromethane	ND	0.015	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
1,1-Dichloroethane	ND	0.0026	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
1,1-Dichloroethene	ND	0.016	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
1,2-Dichloropropane	ND	0.0041	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
1,3-Dichloropropane	ND	0.0055	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
2,2-Dichloropropane	ND	0.0028	0.097		mg/Kg	1	6/20/2016 9:55:03 PM	25923
1,1-Dichloropropene	ND	0.0038	0.097		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Hexachlorobutadiene	ND	0.0059	0.097		mg/Kg	1	6/20/2016 9:55:03 PM	25923
2-Hexanone	ND	0.026	0.48		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Isopropylbenzene	ND	0.0042	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
4-Isopropyltoluene	ND	0.0043	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
4-Methyl-2-pentanone	ND	0.014	0.48		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Methylene chloride	ND	0.014	0.15		mg/Kg	1	6/20/2016 9:55:03 PM	25923
n-Butylbenzene	ND	0.0043	0.15		mg/Kg	1	6/20/2016 9:55:03 PM	25923
n-Propylbenzene	ND	0.0037	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
sec-Butylbenzene	ND	0.0067	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Styrene	ND	0.0043	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
tert-Butylbenzene	ND	0.0040	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
1,1,1,2-Tetrachloroethane	ND	0.0046	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
1,1,2,2-Tetrachloroethane	ND	0.0078	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Tetrachloroethene (PCE)	ND	0.0040	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
trans-1,2-DCE	ND	0.014	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
trans-1,3-Dichloropropene	ND	0.0071	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
1,2,3-Trichlorobenzene	ND	0.0072	0.097		mg/Kg	1	6/20/2016 9:55:03 PM	25923
1,2,4-Trichlorobenzene	ND	0.0052	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
1,1,1-Trichloroethane	ND	0.0030	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-03-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 1:20:00 PM
Lab ID: 1606995-003
Matrix: SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,1,2-Trichloroethane	ND	0.0057	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Trichloroethene (TCE)	ND	0.0052	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Trichlorofluoromethane	ND	0.0036	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
1,2,3-Trichloropropane	ND	0.0084	0.097		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Vinyl chloride	ND	0.0040	0.048		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Xylenes, Total	ND	0.0092	0.097		mg/Kg	1	6/20/2016 9:55:03 PM	25923
Surr: Dibromofluoromethane	105		70-130		%Rec	1	6/20/2016 9:55:03 PM	25923
Surr: 1,2-Dichloroethane-d4	99.5		70-130		%Rec	1	6/20/2016 9:55:03 PM	25923
Surr: Toluene-d8	97.5		70-130		%Rec	1	6/20/2016 9:55:03 PM	25923
Surr: 4-Bromofluorobenzene	103		70-130		%Rec	1	6/20/2016 9:55:03 PM	25923
EPA METHOD 418.1: TPH							Analyst: **TOM**	
Petroleum Hydrocarbons, TR	ND	8.6	20		mg/Kg	1	6/23/2016	25996

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-04-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 11:45:00 AM
Lab ID: 1606995-004
Matrix: SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	2.9	0.042	0.30		mg/Kg	1	6/27/2016 11:40:14 PM	26092
Chloride	170	12	30		mg/Kg	20	6/27/2016 11:52:38 PM	26092
Nitrogen, Nitrate (As N)	7.1	0.016	0.30		mg/Kg	1	6/27/2016 11:40:14 PM	26092
Sulfate	630	5.4	30		mg/Kg	20	6/27/2016 11:52:38 PM	26092
EPA METHOD 7471: MERCURY							Analyst: **DBD**	
Mercury	0.0042	0.00054	0.031	J	mg/Kg	1	6/28/2016 9:36:06 AM	26093
EPA METHOD 6010B: SOIL METALS							Analyst: **MED**	
Arsenic	ND	1.4	4.8		mg/Kg	2	6/30/2016 11:42:53 AM	26123
Barium	200	0.093	0.19		mg/Kg	2	6/30/2016 11:42:53 AM	26123
Cadmium	ND	0.12	0.19		mg/Kg	2	6/30/2016 11:42:53 AM	26123
Chromium	9.5	0.24	0.57		mg/Kg	2	6/30/2016 11:42:53 AM	26123
Copper	3.0	0.30	0.57		mg/Kg	2	6/30/2016 11:42:53 AM	26123
Iron	15000	93	240		mg/Kg	100	6/30/2016 10:36:09 AM	26123
Lead	5.2	0.33	0.48		mg/Kg	2	6/30/2016 11:42:53 AM	26123
Manganese	310	0.085	0.19		mg/Kg	2	6/30/2016 11:42:53 AM	26123
Selenium	ND	2.1	4.8		mg/Kg	2	6/30/2016 11:42:53 AM	26123
Silver	ND	0.061	0.48		mg/Kg	2	6/30/2016 11:42:53 AM	26123
Uranium	ND	1.9	9.6		mg/Kg	2	6/30/2016 11:42:53 AM	26123
Zinc	15	1.1	4.8		mg/Kg	2	6/30/2016 11:42:53 AM	26123
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	0.085	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Acenaphthylene	ND	0.081	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Aniline	ND	0.094	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Anthracene	ND	0.066	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Azobenzene	ND	0.12	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Benz(a)anthracene	ND	0.086	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Benzo(a)pyrene	ND	0.075	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Benzo(b)fluoranthene	ND	0.090	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Benzo(g,h,i)perylene	ND	0.088	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Benzo(k)fluoranthene	ND	0.088	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Benzoic acid	ND	0.083	0.50		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Benzyl alcohol	ND	0.078	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Bis(2-chloroethoxy)methane	ND	0.11	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Bis(2-chloroethyl)ether	ND	0.073	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Bis(2-chloroisopropyl)ether	ND	0.089	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Bis(2-ethylhexyl)phthalate	0.099	0.081	0.50	J	mg/Kg	1	6/30/2016 4:31:23 PM	26116
4-Bromophenyl phenyl ether	ND	0.095	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Butyl benzyl phthalate	ND	0.088	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-04-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 11:45:00 AM
Lab ID: 1606995-004
Matrix: SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Carbazole	ND	0.067	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
4-Chloro-3-methylphenol	ND	0.12	0.50		mg/Kg	1	6/30/2016 4:31:23 PM	26116
4-Chloroaniline	ND	0.11	0.50		mg/Kg	1	6/30/2016 4:31:23 PM	26116
2-Chloronaphthalene	ND	0.078	0.25		mg/Kg	1	6/30/2016 4:31:23 PM	26116
2-Chlorophenol	ND	0.078	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
4-Chlorophenyl phenyl ether	ND	0.11	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Chrysene	ND	0.085	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Di-n-butyl phthalate	ND	0.074	0.40		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Di-n-octyl phthalate	ND	0.085	0.40		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Dibenz(a,h)anthracene	ND	0.080	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Dibenzofuran	ND	0.10	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
1,2-Dichlorobenzene	ND	0.076	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
1,3-Dichlorobenzene	ND	0.077	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
1,4-Dichlorobenzene	ND	0.084	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
3,3´-Dichlorobenzidine	ND	0.073	0.25		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Diethyl phthalate	ND	0.10	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Dimethyl phthalate	ND	0.097	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
2,4-Dichlorophenol	ND	0.093	0.40		mg/Kg	1	6/30/2016 4:31:23 PM	26116
2,4-Dimethylphenol	ND	0.11	0.30		mg/Kg	1	6/30/2016 4:31:23 PM	26116
4,6-Dinitro-2-methylphenol	ND	0.060	0.40		mg/Kg	1	6/30/2016 4:31:23 PM	26116
2,4-Dinitrophenol	ND	0.066	0.50		mg/Kg	1	6/30/2016 4:31:23 PM	26116
2,4-Dinitrotoluene	ND	0.089	0.50		mg/Kg	1	6/30/2016 4:31:23 PM	26116
2,6-Dinitrotoluene	ND	0.11	0.50		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Fluoranthene	ND	0.057	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Fluorene	ND	0.091	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Hexachlorobenzene	ND	0.078	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Hexachlorobutadiene	ND	0.11	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Hexachlorocyclopentadiene	ND	0.11	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Hexachloroethane	ND	0.086	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Indeno(1,2,3-cd)pyrene	ND	0.078	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
1-Methylnaphthalene	ND	0.10	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
2-Methylnaphthalene	ND	0.12	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
2-Methylphenol	ND	0.083	0.40		mg/Kg	1	6/30/2016 4:31:23 PM	26116
3+4-Methylphenol	ND	0.072	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
N-Nitrosodi-n-propylamine	ND	0.096	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
N-Nitrosodiphenylamine	ND	0.097	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Naphthalene	ND	0.096	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
2-Nitroaniline	ND	0.11	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
3-Nitroaniline	ND	0.088	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-04-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 11:45:00 AM
Lab ID: 1606995-004 **Matrix:** SOIL **Received Date:** 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
4-Nitroaniline	ND	0.070	0.40		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Nitrobenzene	ND	0.10	0.40		mg/Kg	1	6/30/2016 4:31:23 PM	26116
2-Nitrophenol	ND	0.099	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
4-Nitrophenol	ND	0.076	0.25		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Pentachlorophenol	ND	0.064	0.40		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Phenanthrene	ND	0.068	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Phenol	ND	0.075	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Pyrene	ND	0.075	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Pyridine	ND	0.079	0.40		mg/Kg	1	6/30/2016 4:31:23 PM	26116
1,2,4-Trichlorobenzene	ND	0.11	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
2,4,5-Trichlorophenol	ND	0.10	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
2,4,6-Trichlorophenol	ND	0.083	0.20		mg/Kg	1	6/30/2016 4:31:23 PM	26116
Surr: 2-Fluorophenol	69.7	0	28.3-102		%Rec	1	6/30/2016 4:31:23 PM	26116
Surr: Phenol-d5	76.7	0	35.7-103		%Rec	1	6/30/2016 4:31:23 PM	26116
Surr: 2,4,6-Tribromophenol	84.1	0	35.2-108		%Rec	1	6/30/2016 4:31:23 PM	26116
Surr: Nitrobenzene-d5	81.5		24-118		%Rec	1	6/30/2016 4:31:23 PM	26116
Surr: 2-Fluorobiphenyl	84.2		35.4-111		%Rec	1	6/30/2016 4:31:23 PM	26116
Surr: 4-Terphenyl-d14	71.3		15-91.7		%Rec	1	6/30/2016 4:31:23 PM	26116
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.020	0.025		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Toluene	ND	0.0029	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Ethylbenzene	ND	0.0041	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Methyl tert-butyl ether (MTBE)	ND	0.016	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
1,2,4-Trimethylbenzene	ND	0.0037	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
1,3,5-Trimethylbenzene	ND	0.0036	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
1,2-Dichloroethane (EDC)	ND	0.013	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
1,2-Dibromoethane (EDB)	ND	0.0035	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Naphthalene	ND	0.0078	0.10		mg/Kg	1	6/23/2016 12:50:04 PM	25923
1-Methylnaphthalene	ND	0.011	0.20		mg/Kg	1	6/23/2016 12:50:04 PM	25923
2-Methylnaphthalene	ND	0.011	0.20		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Acetone	ND	0.064	0.75		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Bromobenzene	ND	0.0040	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Bromodichloromethane	ND	0.0029	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Bromoform	ND	0.0061	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Bromomethane	0.023	0.018	0.15	J	mg/Kg	1	6/23/2016 12:50:04 PM	25923
2-Butanone	ND	0.028	0.50		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Carbon disulfide	ND	0.016	0.50		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Carbon tetrachloride	ND	0.0033	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Chlorobenzene	ND	0.0040	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-04-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 11:45:00 AM
Lab ID: 1606995-004 **Matrix:** SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Chloroethane	ND	0.0099	0.10		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Chloroform	ND	0.0038	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Chloromethane	0.065	0.0044	0.15	J	mg/Kg	1	6/23/2016 12:50:04 PM	25923
2-Chlorotoluene	ND	0.0037	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
4-Chlorotoluene	ND	0.0044	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
cis-1,2-DCE	ND	0.0029	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
cis-1,3-Dichloropropene	ND	0.0046	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
1,2-Dibromo-3-chloropropane	ND	0.015	0.10		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Dibromochloromethane	ND	0.0045	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Dibromomethane	ND	0.0043	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
1,2-Dichlorobenzene	ND	0.0043	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
1,3-Dichlorobenzene	ND	0.0041	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
1,4-Dichlorobenzene	ND	0.0062	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Dichlorodifluoromethane	ND	0.015	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
1,1-Dichloroethane	ND	0.0027	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
1,1-Dichloroethene	ND	0.016	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
1,2-Dichloropropane	ND	0.0042	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
1,3-Dichloropropane	ND	0.0056	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
2,2-Dichloropropane	ND	0.0028	0.10		mg/Kg	1	6/23/2016 12:50:04 PM	25923
1,1-Dichloropropene	ND	0.0039	0.10		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Hexachlorobutadiene	ND	0.0061	0.10		mg/Kg	1	6/23/2016 12:50:04 PM	25923
2-Hexanone	ND	0.027	0.50		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Isopropylbenzene	ND	0.0043	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
4-Isopropyltoluene	ND	0.0045	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
4-Methyl-2-pentanone	ND	0.014	0.50		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Methylene chloride	ND	0.014	0.15		mg/Kg	1	6/23/2016 12:50:04 PM	25923
n-Butylbenzene	ND	0.0044	0.15		mg/Kg	1	6/23/2016 12:50:04 PM	25923
n-Propylbenzene	ND	0.0038	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
sec-Butylbenzene	ND	0.0069	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Styrene	ND	0.0044	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
tert-Butylbenzene	ND	0.0041	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
1,1,1,2-Tetrachloroethane	ND	0.0048	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
1,1,2,2-Tetrachloroethane	ND	0.0081	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Tetrachloroethene (PCE)	ND	0.0041	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
trans-1,2-DCE	ND	0.014	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
trans-1,3-Dichloropropene	ND	0.0073	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
1,2,3-Trichlorobenzene	ND	0.0074	0.10		mg/Kg	1	6/23/2016 12:50:04 PM	25923
1,2,4-Trichlorobenzene	ND	0.0053	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
1,1,1-Trichloroethane	ND	0.0030	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-04-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 11:45:00 AM
Lab ID: 1606995-004 **Matrix:** SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,1,2-Trichloroethane	ND	0.0059	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Trichloroethene (TCE)	ND	0.0053	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Trichlorofluoromethane	ND	0.0037	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
1,2,3-Trichloropropane	ND	0.0086	0.10		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Vinyl chloride	ND	0.0041	0.050		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Xylenes, Total	ND	0.0094	0.10		mg/Kg	1	6/23/2016 12:50:04 PM	25923
Surr: Dibromofluoromethane	99.8		70-130		%Rec	1	6/23/2016 12:50:04 PM	25923
Surr: 1,2-Dichloroethane-d4	102		70-130		%Rec	1	6/23/2016 12:50:04 PM	25923
Surr: Toluene-d8	92.8		70-130		%Rec	1	6/23/2016 12:50:04 PM	25923
Surr: 4-Bromofluorobenzene	103		70-130		%Rec	1	6/23/2016 12:50:04 PM	25923
EPA METHOD 418.1: TPH							Analyst: **TOM**	
Petroleum Hydrocarbons, TR	ND	8.0	19		mg/Kg	1	6/23/2016	25996

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Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BD-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016
Lab ID: 1606995-005
Matrix: SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	2.7	0.042	0.30		mg/Kg	1	6/28/2016 12:05:03 AM	26092
Chloride	360	12	30		mg/Kg	20	6/28/2016 12:17:27 AM	26092
Nitrogen, Nitrate (As N)	3.0	0.016	0.30		mg/Kg	1	6/28/2016 12:05:03 AM	26092
Sulfate	770	5.4	30		mg/Kg	20	6/28/2016 12:17:27 AM	26092
EPA METHOD 7471: MERCURY							Analyst: **DBD**	
Mercury	0.0054	0.00053	0.031	J	mg/Kg	1	6/28/2016 9:37:56 AM	26093
EPA METHOD 6010B: SOIL METALS							Analyst: **MED**	
Arsenic	ND	1.4	4.8		mg/Kg	2	6/30/2016 11:45:00 AM	26123
Barium	190	0.094	0.19		mg/Kg	2	6/30/2016 11:45:00 AM	26123
Cadmium	ND	0.12	0.19		mg/Kg	2	6/30/2016 11:45:00 AM	26123
Chromium	11	0.24	0.58		mg/Kg	2	6/30/2016 11:45:00 AM	26123
Copper	3.8	0.30	0.58		mg/Kg	2	6/30/2016 11:45:00 AM	26123
Iron	15000	94	240		mg/Kg	100	6/30/2016 10:45:16 AM	26123
Lead	3.6	0.34	0.48		mg/Kg	2	6/30/2016 11:45:00 AM	26123
Manganese	240	0.086	0.19		mg/Kg	2	6/30/2016 11:45:00 AM	26123
Selenium	ND	2.1	4.8		mg/Kg	2	6/30/2016 11:45:00 AM	26123
Silver	ND	0.061	0.48		mg/Kg	2	6/30/2016 11:45:00 AM	26123
Uranium	ND	1.9	9.7		mg/Kg	2	6/30/2016 11:45:00 AM	26123
Zinc	17	1.1	4.8		mg/Kg	2	6/30/2016 11:45:00 AM	26123
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	0.17	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Acenaphthylene	ND	0.16	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Aniline	ND	0.19	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Anthracene	ND	0.13	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Azobenzene	ND	0.24	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Benz(a)anthracene	ND	0.17	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Benzo(a)pyrene	ND	0.15	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Benzo(b)fluoranthene	ND	0.18	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Benzo(g,h,i)perylene	ND	0.18	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Benzo(k)fluoranthene	ND	0.18	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Benzoic acid	ND	0.17	1.0	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Benzyl alcohol	ND	0.16	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Bis(2-chloroethoxy)methane	ND	0.22	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Bis(2-chloroethyl)ether	ND	0.15	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Bis(2-chloroisopropyl)ether	ND	0.18	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Bis(2-ethylhexyl)phthalate	ND	0.16	1.0	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
4-Bromophenyl phenyl ether	ND	0.19	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Butyl benzyl phthalate	ND	0.18	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BD-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016
Lab ID: 1606995-005
Matrix: SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Carbazole	ND	0.14	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
4-Chloro-3-methylphenol	ND	0.24	1.0	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
4-Chloroaniline	ND	0.22	1.0	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
2-Chloronaphthalene	ND	0.16	0.50	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
2-Chlorophenol	ND	0.16	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
4-Chlorophenyl phenyl ether	ND	0.23	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Chrysene	ND	0.17	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Di-n-butyl phthalate	0.16	0.15	0.80	JD	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Di-n-octyl phthalate	ND	0.17	0.80	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Dibenz(a,h)anthracene	ND	0.16	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Dibenzofuran	ND	0.20	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
1,2-Dichlorobenzene	ND	0.15	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
1,3-Dichlorobenzene	ND	0.16	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
1,4-Dichlorobenzene	ND	0.17	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
3,3´-Dichlorobenzidine	ND	0.15	0.50	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Diethyl phthalate	ND	0.20	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Dimethyl phthalate	ND	0.20	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
2,4-Dichlorophenol	ND	0.19	0.80	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
2,4-Dimethylphenol	ND	0.22	0.60	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
4,6-Dinitro-2-methylphenol	ND	0.12	0.80	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
2,4-Dinitrophenol	ND	0.13	1.0	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
2,4-Dinitrotoluene	ND	0.18	1.0	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
2,6-Dinitrotoluene	ND	0.21	1.0	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Fluoranthene	ND	0.12	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Fluorene	ND	0.18	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Hexachlorobenzene	ND	0.16	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Hexachlorobutadiene	ND	0.23	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Hexachlorocyclopentadiene	ND	0.23	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Hexachloroethane	ND	0.17	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Indeno(1,2,3-cd)pyrene	ND	0.16	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
1-Methylnaphthalene	ND	0.20	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
2-Methylnaphthalene	ND	0.24	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
2-Methylphenol	ND	0.17	0.80	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
3+4-Methylphenol	ND	0.15	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
N-Nitrosodi-n-propylamine	ND	0.19	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
N-Nitrosodiphenylamine	ND	0.20	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Naphthalene	ND	0.19	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
2-Nitroaniline	ND	0.22	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
3-Nitroaniline	ND	0.18	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BD-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016
Lab ID: 1606995-005
Matrix: SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
4-Nitroaniline	ND	0.14	0.80	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Nitrobenzene	ND	0.21	0.80	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
2-Nitrophenol	ND	0.20	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
4-Nitrophenol	ND	0.15	0.50	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Pentachlorophenol	ND	0.13	0.80	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Phenanthrene	ND	0.14	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Phenol	ND	0.15	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Pyrene	ND	0.15	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Pyridine	ND	0.16	0.80	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
1,2,4-Trichlorobenzene	ND	0.22	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
2,4,5-Trichlorophenol	ND	0.20	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
2,4,6-Trichlorophenol	ND	0.17	0.40	D	mg/Kg	1	6/30/2016 4:59:04 PM	26116
Surr: 2-Fluorophenol	63.7	0	28.3-102	D	%Rec	1	6/30/2016 4:59:04 PM	26116
Surr: Phenol-d5	66.9	0	35.7-103	D	%Rec	1	6/30/2016 4:59:04 PM	26116
Surr: 2,4,6-Tribromophenol	79.4	0	35.2-108	D	%Rec	1	6/30/2016 4:59:04 PM	26116
Surr: Nitrobenzene-d5	68.2		24-118	D	%Rec	1	6/30/2016 4:59:04 PM	26116
Surr: 2-Fluorobiphenyl	73.5		35.4-111	D	%Rec	1	6/30/2016 4:59:04 PM	26116
Surr: 4-Terphenyl-d14	102		15-91.7	SD	%Rec	1	6/30/2016 4:59:04 PM	26116
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.019	0.023		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Toluene	ND	0.0028	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Ethylbenzene	ND	0.0038	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Methyl tert-butyl ether (MTBE)	ND	0.015	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
1,2,4-Trimethylbenzene	ND	0.0034	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
1,3,5-Trimethylbenzene	ND	0.0034	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
1,2-Dichloroethane (EDC)	ND	0.012	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
1,2-Dibromoethane (EDB)	ND	0.0033	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Naphthalene	ND	0.0073	0.093		mg/Kg	1	6/23/2016 1:18:39 PM	25923
1-Methylnaphthalene	ND	0.010	0.19		mg/Kg	1	6/23/2016 1:18:39 PM	25923
2-Methylnaphthalene	ND	0.010	0.19		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Acetone	ND	0.060	0.70		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Bromobenzene	ND	0.0038	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Bromodichloromethane	ND	0.0027	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Bromoform	ND	0.0057	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Bromomethane	0.021	0.017	0.14	J	mg/Kg	1	6/23/2016 1:18:39 PM	25923
2-Butanone	ND	0.027	0.47		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Carbon disulfide	ND	0.015	0.47		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Carbon tetrachloride	ND	0.0031	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Chlorobenzene	ND	0.0038	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BD-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016
Lab ID: 1606995-005
Matrix: SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Chloroethane	ND	0.0093	0.093		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Chloroform	ND	0.0035	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Chloromethane	0.058	0.0041	0.14	J	mg/Kg	1	6/23/2016 1:18:39 PM	25923
2-Chlorotoluene	ND	0.0034	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
4-Chlorotoluene	ND	0.0041	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
cis-1,2-DCE	ND	0.0027	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
cis-1,3-Dichloropropene	ND	0.0043	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
1,2-Dibromo-3-chloropropane	ND	0.014	0.093		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Dibromochloromethane	ND	0.0042	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Dibromomethane	ND	0.0040	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
1,2-Dichlorobenzene	ND	0.0041	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
1,3-Dichlorobenzene	ND	0.0038	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
1,4-Dichlorobenzene	ND	0.0058	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Dichlorodifluoromethane	ND	0.014	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
1,1-Dichloroethane	ND	0.0025	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
1,1-Dichloroethene	ND	0.015	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
1,2-Dichloropropane	ND	0.0039	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
1,3-Dichloropropane	ND	0.0053	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
2,2-Dichloropropane	ND	0.0027	0.093		mg/Kg	1	6/23/2016 1:18:39 PM	25923
1,1-Dichloropropene	ND	0.0037	0.093		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Hexachlorobutadiene	ND	0.0057	0.093		mg/Kg	1	6/23/2016 1:18:39 PM	25923
2-Hexanone	ND	0.025	0.47		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Isopropylbenzene	ND	0.0040	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
4-Isopropyltoluene	ND	0.0042	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
4-Methyl-2-pentanone	ND	0.014	0.47		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Methylene chloride	ND	0.013	0.14		mg/Kg	1	6/23/2016 1:18:39 PM	25923
n-Butylbenzene	ND	0.0041	0.14		mg/Kg	1	6/23/2016 1:18:39 PM	25923
n-Propylbenzene	ND	0.0036	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
sec-Butylbenzene	ND	0.0065	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Styrene	ND	0.0042	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
tert-Butylbenzene	ND	0.0039	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
1,1,1,2-Tetrachloroethane	ND	0.0045	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
1,1,2,2-Tetrachloroethane	ND	0.0076	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Tetrachloroethene (PCE)	ND	0.0039	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
trans-1,2-DCE	ND	0.013	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
trans-1,3-Dichloropropene	ND	0.0068	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
1,2,3-Trichlorobenzene	ND	0.0070	0.093		mg/Kg	1	6/23/2016 1:18:39 PM	25923
1,2,4-Trichlorobenzene	ND	0.0050	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
1,1,1-Trichloroethane	ND	0.0028	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BD-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016
Lab ID: 1606995-005
Matrix: SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,1,2-Trichloroethane	ND	0.0055	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Trichloroethene (TCE)	ND	0.0050	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Trichlorofluoromethane	ND	0.0035	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
1,2,3-Trichloropropane	ND	0.0081	0.093		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Vinyl chloride	ND	0.0038	0.047		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Xylenes, Total	ND	0.0088	0.093		mg/Kg	1	6/23/2016 1:18:39 PM	25923
Surr: Dibromofluoromethane	102		70-130		%Rec	1	6/23/2016 1:18:39 PM	25923
Surr: 1,2-Dichloroethane-d4	100		70-130		%Rec	1	6/23/2016 1:18:39 PM	25923
Surr: Toluene-d8	91.6		70-130		%Rec	1	6/23/2016 1:18:39 PM	25923
Surr: 4-Bromofluorobenzene	103		70-130		%Rec	1	6/23/2016 1:18:39 PM	25923
EPA METHOD 418.1: TPH							Analyst: **TOM**	
Petroleum Hydrocarbons, TR	ND	8.7	21		mg/Kg	1	6/23/2016	25996

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-TZ-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 1:40:00 PM
Lab ID: 1606995-006 **Matrix:** SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: **JME**	
Diesel Range Organics (DRO)	180	1.8	9.6		mg/Kg	1	6/23/2016 6:14:17 PM	25944
Motor Oil Range Organics (MRO)	200	48	48		mg/Kg	1	6/23/2016 6:14:17 PM	25944
Surr: DNOP	115	0	70-130		%Rec	1	6/23/2016 6:14:17 PM	25944
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	0.96	4.6		mg/Kg	1	6/24/2016 7:46:24 PM	25923
Surr: BFB	86.5	0	80-120		%Rec	1	6/24/2016 7:46:24 PM	25923
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	9.4	0.84	6.0		mg/Kg	20	6/28/2016 12:42:17 AM	26092
Chloride	290	12	30		mg/Kg	20	6/28/2016 12:42:17 AM	26092
Nitrogen, Nitrate (As N)	5.2	0.016	0.30		mg/Kg	1	6/28/2016 12:29:52 AM	26092
Sulfate	860	5.4	30		mg/Kg	20	6/28/2016 12:42:17 AM	26092
EPA METHOD 7471: MERCURY							Analyst: **DBD**	
Mercury	0.35	0.0011	0.064		mg/Kg	2	6/28/2016 9:45:27 AM	26093
EPA METHOD 6010B: SOIL METALS							Analyst: **MED**	
Arsenic	1.4	0.71	2.4	J	mg/Kg	1	6/30/2016 11:12:22 AM	26123
Barium	170	0.047	0.097		mg/Kg	1	6/30/2016 11:12:22 AM	26123
Cadmium	ND	0.062	0.097		mg/Kg	1	6/30/2016 11:12:22 AM	26123
Chromium	10	0.12	0.29		mg/Kg	1	6/30/2016 11:12:22 AM	26123
Copper	8.9	0.15	0.29		mg/Kg	1	6/30/2016 11:12:22 AM	26123
Iron	15000	95	240		mg/Kg	100	6/30/2016 10:46:51 AM	26123
Lead	9.0	0.17	0.24		mg/Kg	1	6/30/2016 11:12:22 AM	26123
Manganese	280	0.086	0.19		mg/Kg	2	6/30/2016 11:46:55 AM	26123
Selenium	ND	1.1	2.4		mg/Kg	1	6/30/2016 11:12:22 AM	26123
Silver	ND	0.031	0.24		mg/Kg	1	6/30/2016 11:12:22 AM	26123
Uranium	ND	0.96	4.9		mg/Kg	1	6/30/2016 11:12:22 AM	26123
Zinc	38	0.55	2.4		mg/Kg	1	6/30/2016 11:12:22 AM	26123
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	0.17	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Acenaphthylene	ND	0.16	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Aniline	ND	0.19	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Anthracene	ND	0.13	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Azobenzene	ND	0.24	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Benz(a)anthracene	ND	0.17	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Benzo(a)pyrene	ND	0.15	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Benzo(b)fluoranthene	ND	0.18	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Benzo(g,h,i)perylene	ND	0.18	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Benzo(k)fluoranthene	ND	0.18	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-TZ-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 1:40:00 PM
Lab ID: 1606995-006
Matrix: SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Benzoic acid	ND	0.17	1.0	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Benzyl alcohol	ND	0.16	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Bis(2-chloroethoxy)methane	ND	0.22	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Bis(2-chloroethyl)ether	ND	0.15	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Bis(2-chloroisopropyl)ether	ND	0.18	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Bis(2-ethylhexyl)phthalate	0.18	0.16	1.0	JD	mg/Kg	1	6/30/2016 5:26:58 PM	26116
4-Bromophenyl phenyl ether	ND	0.19	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Butyl benzyl phthalate	ND	0.18	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Carbazole	ND	0.13	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
4-Chloro-3-methylphenol	ND	0.24	1.0	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
4-Chloroaniline	ND	0.22	1.0	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
2-Chloronaphthalene	ND	0.16	0.50	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
2-Chlorophenol	ND	0.16	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
4-Chlorophenyl phenyl ether	ND	0.23	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Chrysene	ND	0.17	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Di-n-butyl phthalate	0.15	0.15	0.80	JD	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Di-n-octyl phthalate	ND	0.17	0.80	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Dibenz(a,h)anthracene	ND	0.16	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Dibenzofuran	ND	0.20	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
1,2-Dichlorobenzene	ND	0.15	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
1,3-Dichlorobenzene	ND	0.15	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
1,4-Dichlorobenzene	ND	0.17	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
3,3´-Dichlorobenzidine	ND	0.15	0.50	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Diethyl phthalate	ND	0.20	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Dimethyl phthalate	ND	0.20	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
2,4-Dichlorophenol	ND	0.19	0.80	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
2,4-Dimethylphenol	ND	0.22	0.60	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
4,6-Dinitro-2-methylphenol	ND	0.12	0.80	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
2,4-Dinitrophenol	ND	0.13	1.0	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
2,4-Dinitrotoluene	ND	0.18	1.0	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
2,6-Dinitrotoluene	ND	0.21	1.0	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Fluoranthene	ND	0.11	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Fluorene	ND	0.18	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Hexachlorobenzene	ND	0.16	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Hexachlorobutadiene	ND	0.22	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Hexachlorocyclopentadiene	ND	0.23	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Hexachloroethane	ND	0.17	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Indeno(1,2,3-cd)pyrene	ND	0.16	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
1-Methylnaphthalene	ND	0.20	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-TZ-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 1:40:00 PM
Lab ID: 1606995-006
Matrix: SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
2-Methylnaphthalene	ND	0.24	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
2-Methylphenol	ND	0.17	0.80	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
3+4-Methylphenol	ND	0.14	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
N-Nitrosodi-n-propylamine	ND	0.19	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
N-Nitrosodiphenylamine	ND	0.19	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Naphthalene	ND	0.19	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
2-Nitroaniline	ND	0.21	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
3-Nitroaniline	ND	0.18	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
4-Nitroaniline	ND	0.14	0.80	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Nitrobenzene	ND	0.21	0.80	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
2-Nitrophenol	ND	0.20	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
4-Nitrophenol	ND	0.15	0.50	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Pentachlorophenol	ND	0.13	0.80	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Phenanthrene	ND	0.14	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Phenol	ND	0.15	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Pyrene	ND	0.15	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Pyridine	ND	0.16	0.80	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
1,2,4-Trichlorobenzene	ND	0.22	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
2,4,5-Trichlorophenol	ND	0.20	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
2,4,6-Trichlorophenol	ND	0.17	0.40	D	mg/Kg	1	6/30/2016 5:26:58 PM	26116
Surr: 2-Fluorophenol	67.1	0	28.3-102	D	%Rec	1	6/30/2016 5:26:58 PM	26116
Surr: Phenol-d5	71.9	0	35.7-103	D	%Rec	1	6/30/2016 5:26:58 PM	26116
Surr: 2,4,6-Tribromophenol	80.0	0	35.2-108	D	%Rec	1	6/30/2016 5:26:58 PM	26116
Surr: Nitrobenzene-d5	75.6		24-118	D	%Rec	1	6/30/2016 5:26:58 PM	26116
Surr: 2-Fluorobiphenyl	86.3		35.4-111	D	%Rec	1	6/30/2016 5:26:58 PM	26116
Surr: 4-Terphenyl-d14	73.4		15-91.7	D	%Rec	1	6/30/2016 5:26:58 PM	26116
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.019	0.023		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Toluene	0.0090	0.0027	0.046	J	mg/Kg	1	6/23/2016 1:47:16 PM	25923
Ethylbenzene	ND	0.0038	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Methyl tert-butyl ether (MTBE)	ND	0.015	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
1,2,4-Trimethylbenzene	ND	0.0034	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
1,3,5-Trimethylbenzene	ND	0.0034	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
1,2-Dichloroethane (EDC)	ND	0.012	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
1,2-Dibromoethane (EDB)	ND	0.0033	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Naphthalene	ND	0.0073	0.093		mg/Kg	1	6/23/2016 1:47:16 PM	25923
1-Methylnaphthalene	ND	0.010	0.19		mg/Kg	1	6/23/2016 1:47:16 PM	25923
2-Methylnaphthalene	ND	0.0099	0.19		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Acetone	ND	0.060	0.70		mg/Kg	1	6/23/2016 1:47:16 PM	25923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-TZ-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 1:40:00 PM
Lab ID: 1606995-006
Matrix: SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Bromobenzene	ND	0.0037	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Bromodichloromethane	ND	0.0027	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Bromoform	ND	0.0057	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Bromomethane	0.024	0.017	0.14	J	mg/Kg	1	6/23/2016 1:47:16 PM	25923
2-Butanone	0.070	0.027	0.46	J	mg/Kg	1	6/23/2016 1:47:16 PM	25923
Carbon disulfide	ND	0.015	0.46		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Carbon tetrachloride	ND	0.0030	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Chlorobenzene	ND	0.0038	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Chloroethane	ND	0.0093	0.093		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Chloroform	ND	0.0035	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Chloromethane	0.056	0.0041	0.14	J	mg/Kg	1	6/23/2016 1:47:16 PM	25923
2-Chlorotoluene	ND	0.0034	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
4-Chlorotoluene	ND	0.0041	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
cis-1,2-DCE	ND	0.0027	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
cis-1,3-Dichloropropene	ND	0.0043	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
1,2-Dibromo-3-chloropropane	ND	0.014	0.093		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Dibromochloromethane	ND	0.0042	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Dibromomethane	ND	0.0040	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
1,2-Dichlorobenzene	ND	0.0041	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
1,3-Dichlorobenzene	ND	0.0038	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
1,4-Dichlorobenzene	ND	0.0058	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Dichlorodifluoromethane	ND	0.014	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
1,1-Dichloroethane	ND	0.0025	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
1,1-Dichloroethene	ND	0.015	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
1,2-Dichloropropane	ND	0.0039	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
1,3-Dichloropropane	ND	0.0053	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
2,2-Dichloropropane	ND	0.0027	0.093		mg/Kg	1	6/23/2016 1:47:16 PM	25923
1,1-Dichloropropene	ND	0.0037	0.093		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Hexachlorobutadiene	ND	0.0057	0.093		mg/Kg	1	6/23/2016 1:47:16 PM	25923
2-Hexanone	ND	0.025	0.46		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Isopropylbenzene	ND	0.0040	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
4-Isopropyltoluene	ND	0.0042	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
4-Methyl-2-pentanone	ND	0.014	0.46		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Methylene chloride	ND	0.013	0.14		mg/Kg	1	6/23/2016 1:47:16 PM	25923
n-Butylbenzene	ND	0.0041	0.14		mg/Kg	1	6/23/2016 1:47:16 PM	25923
n-Propylbenzene	ND	0.0036	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
sec-Butylbenzene	ND	0.0064	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Styrene	ND	0.0041	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
tert-Butylbenzene	ND	0.0038	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-TZ-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 1:40:00 PM
Lab ID: 1606995-006
Matrix: SOIL
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,1,1,2-Tetrachloroethane	ND	0.0044	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
1,1,2,2-Tetrachloroethane	ND	0.0075	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Tetrachloroethene (PCE)	ND	0.0038	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
trans-1,2-DCE	ND	0.013	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
trans-1,3-Dichloropropene	ND	0.0068	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
1,2,3-Trichlorobenzene	ND	0.0069	0.093		mg/Kg	1	6/23/2016 1:47:16 PM	25923
1,2,4-Trichlorobenzene	ND	0.0050	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
1,1,1-Trichloroethane	ND	0.0028	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
1,1,2-Trichloroethane	ND	0.0055	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Trichloroethene (TCE)	ND	0.0050	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Trichlorofluoromethane	ND	0.0035	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
1,2,3-Trichloropropane	ND	0.0080	0.093		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Vinyl chloride	ND	0.0038	0.046		mg/Kg	1	6/23/2016 1:47:16 PM	25923
Xylenes, Total	0.010	0.0088	0.093	J	mg/Kg	1	6/23/2016 1:47:16 PM	25923
Surr: Dibromofluoromethane	103		70-130		%Rec	1	6/23/2016 1:47:16 PM	25923
Surr: 1,2-Dichloroethane-d4	105		70-130		%Rec	1	6/23/2016 1:47:16 PM	25923
Surr: Toluene-d8	93.7		70-130		%Rec	1	6/23/2016 1:47:16 PM	25923
Surr: 4-Bromofluorobenzene	100		70-130		%Rec	1	6/23/2016 1:47:16 PM	25923
EPA METHOD 418.1: TPH							Analyst: **TOM**	
Petroleum Hydrocarbons, TR	610	83	200		mg/Kg	10	6/23/2016	25996

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 2:00:00 PM
Lab ID: 1606995-007
Matrix: AQUEOUS
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/28/2016 2:06:00 AM	A35246
Toluene	ND	0.12	1.0		µg/L	1	6/28/2016 2:06:00 AM	A35246
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/28/2016 2:06:00 AM	A35246
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/28/2016 2:06:00 AM	A35246
Surr: 1,2-Dichloroethane-d4	86.2	0	70-130		%Rec	1	6/28/2016 2:06:00 AM	A35246
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	6/28/2016 2:06:00 AM	A35246
Surr: Dibromofluoromethane	95.3	0	70-130		%Rec	1	6/28/2016 2:06:00 AM	A35246
Surr: Toluene-d8	101	0	70-130		%Rec	1	6/28/2016 2:06:00 AM	A35246

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB-6/16/2016
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 6/16/2016 2:15:00 PM
Lab ID: 1606995-008
Matrix: AQUEOUS
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/28/2016 2:29:00 AM	A35246
Toluene	ND	0.12	1.0		µg/L	1	6/28/2016 2:29:00 AM	A35246
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/28/2016 2:29:00 AM	A35246
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/28/2016 2:29:00 AM	A35246
Surr: 1,2-Dichloroethane-d4	88.0	0	70-130		%Rec	1	6/28/2016 2:29:00 AM	A35246
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	6/28/2016 2:29:00 AM	A35246
Surr: Dibromofluoromethane	92.7	0	70-130		%Rec	1	6/28/2016 2:29:00 AM	A35246
Surr: Toluene-d8	98.7	0	70-130		%Rec	1	6/28/2016 2:29:00 AM	A35246

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: OCD Central Landfarm Semiannual Sam
Collection Date:
Lab ID: 1606995-009
Matrix: AQUEOUS
Received Date: 6/17/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/28/2016 3:40:00 AM	A35246
Toluene	ND	0.12	1.0		µg/L	1	6/28/2016 3:40:00 AM	A35246
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/28/2016 3:40:00 AM	A35246
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/28/2016 3:40:00 AM	A35246
Surr: 1,2-Dichloroethane-d4	86.1	0	70-130		%Rec	1	6/28/2016 3:40:00 AM	A35246
Surr: 4-Bromofluorobenzene	99.5	0	70-130		%Rec	1	6/28/2016 3:40:00 AM	A35246
Surr: Dibromofluoromethane	91.7	0	70-130		%Rec	1	6/28/2016 3:40:00 AM	A35246
Surr: Toluene-d8	99.0	0	70-130		%Rec	1	6/28/2016 3:40:00 AM	A35246

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 160622057
Project Name: 1606995

Analytical Results Report

Sample Number 160622057-001 **Sampling Date** 6/16/2016 **Date/Time Received** 6/16/2016 10:45 AM
Client Sample ID 1606995-001B / CENTRALOCD-01-6/16/2016 **Sampling Time** 12:20 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.283	6/30/2016	MER	EPA 335.4	
%moisture	15.5	Percent		6/29/2016	ETL	%moisture	

Sample Number 160622057-002 **Sampling Date** 6/16/2016 **Date/Time Received** 6/16/2016 10:45 AM
Client Sample ID 1606995-002B / CENTRALOCD-02-6/16/2016 **Sampling Time** 12:50 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.297	6/30/2016	MER	EPA 335.4	
%moisture	17.2	Percent		6/29/2016	ETL	%moisture	

Sample Number 160622057-003 **Sampling Date** 6/16/2016 **Date/Time Received** 6/16/2016 10:45 AM
Client Sample ID 1606995-003B / CENTRALOCD-03-6/16/2016 **Sampling Time** 1:20 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	6/30/2016	MER	EPA 335.4	
%moisture	16.8	Percent		6/29/2016	ETL	%moisture	

Sample Number 160622057-004 **Sampling Date** 6/16/2016 **Date/Time Received** 6/16/2016 10:45 AM
Client Sample ID 1606995-004B / CENTRALOCD-04-6/16/2016 **Sampling Time** 11:45 AM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.295	6/30/2016	MER	EPA 335.4	
%moisture	17.4	Percent		6/29/2016	ETL	%moisture	

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	160622057
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	1606995
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	160622057-005	**Sampling Date**	6/16/2016	**Date/Time Received**	6/16/2016 10:45 AM
Client Sample ID	1606995-005B / BD-6/16/2016			**Sampling Time**	
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.29	6/30/2016	MER	EPA 335.4	
%moisture	17.6	Percent		6/29/2016	ETL	%moisture	

Sample Number	160622057-006	**Sampling Date**	6/16/2016	**Date/Time Received**	6/16/2016 10:45 AM
Client Sample ID	1606995-006B / CENTRALOCD-TZ-6/16/2016			**Sampling Time**	1:40 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.487	mg/Kg	0.25	6/30/2016	MER	EPA 335.4	
%moisture	8.6	Percent		6/29/2016	ETL	%moisture	

Authorized Signature

John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 160622057
Project Name: 1606995

Analytical Results Report

Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.501	mg/kg	0.5	100.2	90-110	6/30/2016	6/30/2016

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
160622057-002	Cyanide	ND	14.6	mg/kg	15.1	96.7	70-130	6/30/2016	6/30/2016

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	14.7	mg/kg	14.9	98.7	0.7	0-25	6/30/2016	6/30/2016

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/Kg	0.5	6/30/2016	6/30/2016

AR	Acceptable Range
ND	Not Detected
PQL	Practical Quantitation Limit
RPD	Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013;NV:ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606995**

15-Jul-16

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **MB-26092**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **26092**	RunNo: **35241**
Prep Date: **6/27/2016**	Analysis Date: **6/27/2016**	SeqNo: **1089804** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								
Chloride	ND	1.5								
Nitrogen, Nitrate (As N)	ND	0.30								
Sulfate	0.48	1.5								J

Sample ID **LCS-26092**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **26092**	RunNo: **35241**
Prep Date: **6/27/2016**	Analysis Date: **6/27/2016**	SeqNo: **1089805** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.30	1.500	0	102	90	110			
Chloride	14	1.5	15.00	0	94.7	90	110			
Nitrogen, Nitrate (As N)	7.4	0.30	7.500	0	98.3	90	110			
Sulfate	29	1.5	30.00	0	97.5	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606995**

15-Jul-16

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **MB-25996**	SampType: **MBLK**	TestCode: **EPA Method 418.1: TPH**
Client ID: **PBS**	Batch ID: **25996**	RunNo: **35151**
Prep Date: **6/22/2016**	Analysis Date: **6/23/2016**	SeqNo: **1087694** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID **LCS-25996**	SampType: **LCS**	TestCode: **EPA Method 418.1: TPH**
Client ID: **LCSS**	Batch ID: **25996**	RunNo: **35151**
Prep Date: **6/22/2016**	Analysis Date: **6/23/2016**	SeqNo: **1087695** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	96	20	100.0	0	95.7	83.4	127			

Sample ID **1606995-002AMS**	SampType: **MS**	TestCode: **EPA Method 418.1: TPH**
Client ID: **CentralOCD-02-6/16/**	Batch ID: **25996**	RunNo: **35151**
Prep Date: **6/22/2016**	Analysis Date: **6/23/2016**	SeqNo: **1087698** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	89	19	96.99	0	91.7	80	120			

Sample ID **1606995-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 418.1: TPH**
Client ID: **CentralOCD-02-6/16/**	Batch ID: **25996**	RunNo: **35151**
Prep Date: **6/22/2016**	Analysis Date: **6/23/2016**	SeqNo: **1087699** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	93	20	100.3	0	93.0	80	120	4.79	20	

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606995**

15-Jul-16

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **MB-25944**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **25944**	RunNo: **35116**
Prep Date: **6/20/2016**	Analysis Date: **6/23/2016**	SeqNo: **1086562** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.8		10.00		88.1	70	130			

Sample ID **LCS-25944**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **25944**	RunNo: **35116**
Prep Date: **6/20/2016**	Analysis Date: **6/23/2016**	SeqNo: **1086657** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	10	50.00	0	75.2	62.6	124			
Surr: DNOP	4.4		5.000		87.1	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606995**

15-Jul-16

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **1606995-006AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **CentralOCD-TZ-6/16**	Batch ID: **25923**	RunNo: **35159**
Prep Date: **6/17/2016**	Analysis Date: **6/24/2016**	SeqNo: **1088051** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.6	23.02	0	93.3	59.3	143			
Surr: BFB	840		920.8		90.9	80	120			

Sample ID **1606995-006AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **CentralOCD-TZ-6/16**	Batch ID: **25923**	RunNo: **35159**
Prep Date: **6/17/2016**	Analysis Date: **6/24/2016**	SeqNo: **1088052** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	24.90	0	107	59.3	143	21.1	20	R
Surr: BFB	950		996.0		95.2	80	120	0	0	

Sample ID **LCS-25923**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **25923**	RunNo: **35159**
Prep Date: **6/17/2016**	Analysis Date: **6/24/2016**	SeqNo: **1088059** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	108	80	120			
Surr: BFB	910		1000		90.9	80	120			

Sample ID **MB-25923**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **25923**	RunNo: **35159**
Prep Date: **6/17/2016**	Analysis Date: **6/24/2016**	SeqNo: **1088060** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	930		1000		93.3	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606995**

15-Jul-16

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **mb-25923**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS**	Batch ID: **25923**	RunNo: **35020**
Prep Date: **6/17/2016**	Analysis Date: **6/20/2016**	SeqNo: **1083254** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	0.020	0.050								J
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	0.028	0.15								J
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	0.10	0.15								J
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.050								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.050								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606995**

15-Jul-16

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **mb-25923**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS**	Batch ID: **25923**	RunNo: **35020**
Prep Date: **6/17/2016**	Analysis Date: **6/20/2016**	SeqNo: **1083254** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: Dibromofluoromethane	0.49		0.5000		97.7	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		95.9	70	130			
Surr: Toluene-d8	0.47		0.5000		94.5	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		101	70	130			

Sample ID **lcs-25923**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **LCSS**	Batch ID: **25923**	RunNo: **35020**
Prep Date: **6/17/2016**	Analysis Date: **6/20/2016**	SeqNo: **1083256** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	108	70	130			
Toluene	1.0	0.050	1.000	0	101	70	130			
Chlorobenzene	0.96	0.050	1.000	0	96.4	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606995**

15-Jul-16

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **lcs-25923**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **LCSS**	Batch ID: **25923**	RunNo: **35020**
Prep Date: **6/17/2016**	Analysis Date: **6/20/2016**	SeqNo: **1083256** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	1.1	0.050	1.000	0	109	70	130			
Trichloroethene (TCE)	1.1	0.050	1.000	0	110	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		101	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.4	70	130			
Surr: Toluene-d8	0.49		0.5000		97.5	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		101	70	130			

Sample ID **1606995-002ams**	SampType: **MS**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **CentralOCD-02-6/16/**	Batch ID: **25923**	RunNo: **35020**
Prep Date: **6/17/2016**	Analysis Date: **6/20/2016**	SeqNo: **1083261** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.023	0.9302	0	90.1	49.2	155			
Toluene	0.75	0.047	0.9302	0	80.3	52	154			
Chlorobenzene	0.78	0.047	0.9302	0	84.0	53.2	150			
1,1-Dichloroethene	0.72	0.047	0.9302	0	77.5	34.2	163			
Trichloroethene (TCE)	0.84	0.047	0.9302	0	90.6	48.2	151			
Surr: Dibromofluoromethane	0.48		0.4651		103	70	130			
Surr: 1,2-Dichloroethane-d4	0.46		0.4651		97.9	70	130			
Surr: Toluene-d8	0.44		0.4651		95.7	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.4651		99.8	70	130			

Sample ID **1606995-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: Volatiles**
Client ID: **CentralOCD-02-6/16/**	Batch ID: **25923**	RunNo: **35020**
Prep Date: **6/17/2016**	Analysis Date: **6/20/2016**	SeqNo: **1083262** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.024	0.9506	0	101	49.2	155	13.6	20	
Toluene	0.86	0.048	0.9506	0	90.3	52	154	13.9	20	
Chlorobenzene	0.82	0.048	0.9506	0	86.2	53.2	150	4.81	20	
1,1-Dichloroethene	0.94	0.048	0.9506	0	98.7	34.2	163	26.2	20	R
Trichloroethene (TCE)	0.98	0.048	0.9506	0	103	48.2	151	15.1	20	
Surr: Dibromofluoromethane	0.50		0.4753		104	70	130	0	0	
Surr: 1,2-Dichloroethane-d4	0.46		0.4753		97.1	70	130	0	0	
Surr: Toluene-d8	0.44		0.4753		93.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.48		0.4753		100	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606995**

15-Jul-16

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **A35246**	RunNo: **35246**
Prep Date:	Analysis Date: **6/27/2016**	SeqNo: **1090124** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.9		10.00		88.6	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	9.6		10.00		95.6	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **A35246**	RunNo: **35246**
Prep Date:	Analysis Date: **6/27/2016**	SeqNo: **1090133** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	83.2	70	130			
Toluene	19	1.0	20.00	0	95.3	70	130			
Surr: 1,2-Dichloroethane-d4	8.1		10.00		80.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.3		10.00		92.8	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID **1606995-008ams**	SampType: **MS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **FB-6/16/2016**	Batch ID: **A35246**	RunNo: **35246**
Prep Date:	Analysis Date: **6/28/2016**	SeqNo: **1090146** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	89.9	70	130			
Toluene	19	1.0	20.00	0	94.1	70	130			
Surr: 1,2-Dichloroethane-d4	8.4		10.00		84.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.4		10.00		93.9	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **1606995-008amsd**	SampType: **MSD**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **FB-6/16/2016**	Batch ID: **A35246**	RunNo: **35246**
Prep Date:	Analysis Date: **6/28/2016**	SeqNo: **1090147** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	83.9	70	130	6.95	20	
Toluene	19	1.0	20.00	0	94.1	70	130	0.0106	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606995**

15-Jul-16

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID	**1606995-008amsd**	SampType:	**MSD**	TestCode:	**EPA Method 8260: Volatiles Short List**
Client ID:	**FB-6/16/2016**	Batch ID:	**A35246**	RunNo:	**35246**
Prep Date:		Analysis Date:	**6/28/2016**	SeqNo:	**1090147** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	8.3		10.00		83.3	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130	0	0	
Surr: Dibromofluoromethane	8.9		10.00		88.7	70	130	0	0	
Surr: Toluene-d8	10		10.00		104	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606995**

15-Jul-16

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **mb-26116**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **26116**	RunNo: **35339**
Prep Date: **6/28/2016**	Analysis Date: **6/30/2016**	SeqNo: **1093291** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	0.088	0.50								J
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	0.11	0.50								J
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	0.11	0.40								J
Di-n-octyl phthalate	ND	0.40								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3´-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	0.086	0.40								J
2,4-Dinitrophenol	ND	0.50								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606995**

15-Jul-16

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **mb-26116**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **26116**	RunNo: **35339**
Prep Date: **6/28/2016**	Analysis Date: **6/30/2016**	SeqNo: **1093291** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.40								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.40								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.40								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2-Fluorophenol	2.8		3.330		83.4	28.3	102			
Surr: Phenol-d5	3.0		3.330		89.4	35.7	103			
Surr: 2,4,6-Tribromophenol	3.0		3.330		89.0	35.2	108			
Surr: Nitrobenzene-d5	1.4		1.670		83.8	24	118			
Surr: 2-Fluorobiphenyl	1.6		1.670		95.1	35.4	111			
Surr: 4-Terphenyl-d14	1.1		1.670		65.6	15	91.7			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606995**

15-Jul-16

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **lcs-26116**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **26116**	RunNo: **35339**
Prep Date: **6/28/2016**	Analysis Date: **6/30/2016**	SeqNo: **1093292** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.5	0.20	1.670	0	87.1	45.8	99.8			
4-Chloro-3-methylphenol	2.9	0.50	3.330	0	88.2	51.5	103			
2-Chlorophenol	2.8	0.20	3.330	0	82.6	46.5	105			
1,4-Dichlorobenzene	1.3	0.20	1.670	0	79.5	45.5	103			
2,4-Dinitrotoluene	1.3	0.50	1.670	0	80.3	36	87.2			
N-Nitrosodi-n-propylamine	1.1	0.20	1.670	0	63.4	47.3	104			
4-Nitrophenol	2.8	0.25	3.330	0	84.6	47.3	95.3			
Pentachlorophenol	2.6	0.40	3.330	0	79.1	38.7	89.3			
Phenol	2.7	0.20	3.330	0	82.2	47.8	106			
Pyrene	1.4	0.20	1.670	0	83.1	33.4	105			
1,2,4-Trichlorobenzene	1.5	0.20	1.670	0	90.9	50.4	115			
Surr: 2-Fluorophenol	2.5		3.330		75.9	28.3	102			
Surr: Phenol-d5	2.7		3.330		79.7	35.7	103			
Surr: 2,4,6-Tribromophenol	3.0		3.330		89.0	35.2	108			
Surr: Nitrobenzene-d5	1.5		1.670		88.9	24	118			
Surr: 2-Fluorobiphenyl	1.5		1.670		87.5	35.4	111			
Surr: 4-Terphenyl-d14	1.3		1.670		75.7	15	91.7			

Sample ID **1606995-002ams**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **CentralOCD-02-6/16/**	Batch ID: **26116**	RunNo: **35369**
Prep Date: **6/28/2016**	Analysis Date: **6/30/2016**	SeqNo: **1094093** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.651	0	70.1	39.3	86.4			
4-Chloro-3-methylphenol	2.4	0.49	3.292	0	71.8	37.5	96.4			
2-Chlorophenol	2.4	0.20	3.292	0	71.6	37.4	90.6			
1,4-Dichlorobenzene	0.91	0.20	1.651	0	55.4	31.7	85			
2,4-Dinitrotoluene	0.98	0.49	1.651	0	59.3	26.4	86			
N-Nitrosodi-n-propylamine	1.0	0.20	1.651	0	61.2	43.5	83			
4-Nitrophenol	2.1	0.25	3.292	0	65.2	32.7	98			
Pentachlorophenol	1.9	0.40	3.292	0	57.5	26.6	87.4			
Phenol	2.3	0.20	3.292	0	69.9	40.5	85.3			
Pyrene	1.0	0.20	1.651	0	61.9	23.2	93.9			
1,2,4-Trichlorobenzene	1.2	0.20	1.651	0	70.6	38.7	99			
Surr: 2-Fluorophenol	2.1		3.292		63.6	28.3	102			
Surr: Phenol-d5	2.3		3.292		69.3	35.7	103			
Surr: 2,4,6-Tribromophenol	2.1		3.292		63.6	35.2	108			
Surr: Nitrobenzene-d5	1.2		1.651		71.4	24	118			
Surr: 2-Fluorobiphenyl	1.2		1.651		69.9	35.4	111			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606995**

15-Jul-16

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **1606995-002ams**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **CentralOCD-02-6/16/**	Batch ID: **26116**	RunNo: **35369**
Prep Date: **6/28/2016**	Analysis Date: **6/30/2016**	SeqNo: **1094093** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	0.91		1.651		55.1	15	91.7			

Sample ID **1606995-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **CentralOCD-02-6/16/**	Batch ID: **26116**	RunNo: **35369**
Prep Date: **6/28/2016**	Analysis Date: **6/30/2016**	SeqNo: **1094094** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.1	0.20	1.653	0	64.2	39.3	86.4	8.70	30.2	
4-Chloro-3-methylphenol	2.2	0.49	3.296	0	65.3	37.5	96.4	9.36	37.2	
2-Chlorophenol	2.1	0.20	3.296	0	62.3	37.4	90.6	13.7	48	
1,4-Dichlorobenzene	0.80	0.20	1.653	0	48.1	31.7	85	13.9	40.6	
2,4-Dinitrotoluene	0.92	0.49	1.653	0	55.8	26.4	86	5.97	47.7	
N-Nitrosodi-n-propylamine	0.92	0.20	1.653	0	55.6	43.5	83	9.40	52.5	
4-Nitrophenol	2.1	0.25	3.296	0	62.7	32.7	98	3.78	36.6	
Pentachlorophenol	1.9	0.40	3.296	0	57.6	26.6	87.4	0.375	65.5	
Phenol	1.9	0.20	3.296	0	58.8	40.5	85.3	17.2	44	
Pyrene	0.94	0.20	1.653	0	56.9	23.2	93.9	8.27	42.1	
1,2,4-Trichlorobenzene	1.0	0.20	1.653	0	60.9	38.7	99	14.6	31.5	
Surr: 2-Fluorophenol	1.8		3.296		54.8	28.3	102	0	0	
Surr: Phenol-d5	2.0		3.296		61.9	35.7	103	0	0	
Surr: 2,4,6-Tribromophenol	2.1		3.296		64.3	35.2	108	0	0	
Surr: Nitrobenzene-d5	1.0		1.653		61.0	24	118	0	0	
Surr: 2-Fluorobiphenyl	1.1		1.653		66.3	35.4	111	0	0	
Surr: 4-Terphenyl-d14	0.87		1.653		52.6	15	91.7	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606995**

15-Jul-16

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID	**MB-26093**	SampType:	**MBLK**		TestCode:	**EPA Method 7471: Mercury**					
Client ID:	**PBS**	Batch ID:	**26093**		RunNo:	**35255**					
Prep Date:	**6/27/2016**	Analysis Date:	**6/28/2016**		SeqNo:	**1090434**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	ND	0.033									

Sample ID	**LCS-26093**	SampType:	**LCS**		TestCode:	**EPA Method 7471: Mercury**					
Client ID:	**LCSS**	Batch ID:	**26093**		RunNo:	**35255**					
Prep Date:	**6/27/2016**	Analysis Date:	**6/28/2016**		SeqNo:	**1090435**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.17	0.033	0.1667	0	105	80	120				

Sample ID	**1606995-002AMS**	SampType:	**MS**		TestCode:	**EPA Method 7471: Mercury**					
Client ID:	**CentralOCD-02-6/16/**	Batch ID:	**26093**		RunNo:	**35255**					
Prep Date:	**6/27/2016**	Analysis Date:	**6/28/2016**		SeqNo:	**1090442**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.16	0.031	0.1548	0.003335	99.7	75	125				

Sample ID	**1606995-002AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 7471: Mercury**					
Client ID:	**CentralOCD-02-6/16/**	Batch ID:	**26093**		RunNo:	**35255**					
Prep Date:	**6/27/2016**	Analysis Date:	**6/28/2016**		SeqNo:	**1090443**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.18	0.033	0.1683	0.003335	103	75	125	11.4	20		

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606995**

15-Jul-16

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **MB-26123**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **26123**	RunNo: **35332**
Prep Date: **6/28/2016**	Analysis Date: **6/30/2016**	SeqNo: **1093114** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Copper	ND	0.30								
Iron	ND	2.5								
Lead	ND	0.25								
Manganese	ND	0.10								
Selenium	ND	2.5								
Silver	ND	0.25								
Uranium	ND	5.0								
Zinc	ND	2.5								

Sample ID **LCS-26123**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **26123**	RunNo: **35332**
Prep Date: **6/28/2016**	Analysis Date: **6/30/2016**	SeqNo: **1093115** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	23	2.5	25.00	0	93.0	80	120			
Barium	24	0.10	25.00	0	94.8	80	120			
Cadmium	24	0.10	25.00	0	94.4	80	120			
Chromium	23	0.30	25.00	0	93.9	80	120			
Copper	25	0.30	25.00	0	98.1	80	120			
Iron	24	2.5	25.00	0	94.8	80	120			
Lead	22	0.25	25.00	0	88.1	80	120			
Manganese	23	0.10	25.00	0	92.3	80	120			
Selenium	23	2.5	25.00	0	92.1	80	120			
Silver	4.7	0.25	5.000	0	93.1	80	120			
Uranium	24	5.0	25.00	0	98.0	80	120			
Zinc	24	2.5	25.00	0	94.2	80	120			

Sample ID **1606995-002AMS**	SampType: **MS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **CentralOCD-02-6/16/**	Batch ID: **26123**	RunNo: **35362**
Prep Date: **6/28/2016**	Analysis Date: **6/30/2016**	SeqNo: **1093792** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	15	2.4	24.42	0.8789	57.7	75	125			S
Barium	160	0.098	24.42	165.2	-4.64	75	125			S
Cadmium	16	0.098	24.42	0	64.2	75	125			S
Chromium	24	0.29	24.42	8.131	66.6	75	125			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606995**

15-Jul-16

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **1606995-002AMS**	SampType: **MS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **CentralOCD-02-6/16/**	Batch ID: **26123**	RunNo: **35362**
Prep Date: **6/28/2016**	Analysis Date: **6/30/2016**	SeqNo: **1093792** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	19	0.29	24.42	2.413	67.0	75	125			S
Lead	17	0.24	24.42	3.606	52.9	75	125			S
Selenium	12	2.4	24.42	0	50.2	75	125			S
Silver	3.2	0.24	4.885	0	65.0	75	125			S
Uranium	14	4.9	24.42	0	58.6	75	125			S
Zinc	28	2.4	24.42	12.53	62.3	75	125			S

Sample ID **1606995-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **CentralOCD-02-6/16/**	Batch ID: **26123**	RunNo: **35362**
Prep Date: **6/28/2016**	Analysis Date: **6/30/2016**	SeqNo: **1093793** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	17	2.5	25.41	0.8789	63.0	75	125	11.9	20	S
Barium	210	0.10	25.41	165.2	157	75	125	22.2	20	RS
Cadmium	17	0.10	25.41	0	65.5	75	125	6.02	20	S
Chromium	26	0.30	25.41	8.131	70.2	75	125	6.27	20	S
Copper	21	0.30	25.41	2.413	71.9	75	125	9.71	20	S
Lead	18	0.25	25.41	3.606	55.0	75	125	6.18	20	S
Selenium	11	2.5	25.41	0	44.7	75	125	7.71	20	S
Silver	3.4	0.25	5.082	0	67.5	75	125	7.68	20	S
Uranium	15	5.1	25.41	0	60.3	75	125	6.96	20	S
Zinc	30	2.5	25.41	12.53	69.5	75	125	8.40	20	S

Sample ID **1606995-002APS**	SampType: **PS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **CentralOCD-02-6/16/**	Batch ID: **26123**	RunNo: **35362**
Prep Date:	Analysis Date: **6/30/2016**	SeqNo: **1093794** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	21	2.4	24.44	0.8789	82.8	80	120			
Barium	200	0.098	24.44	165.2	133	80	120			S
Cadmium	20	0.098	24.44	0	81.9	80	120			
Chromium	28	0.29	24.44	8.131	81.1	80	120			
Copper	24	0.29	24.44	2.413	89.9	80	120			
Lead	22	0.24	24.44	3.606	74.9	80	120			S
Selenium	19	2.4	24.44	0	76.3	80	120			S
Silver	3.9	0.24	4.888	0	80.3	80	120			
Uranium	18	4.9	24.44	0	75.5	80	120			S
Zinc	32	2.4	24.44	12.53	79.8	80	120			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1606995** RcptNo: **1**

Received by/date: AG 06/17/16

Logged By: **Anne Thorne** 6/17/2016 10:00:00 AM Anne Thorne

Completed By: **Anne Thorne** 6/17/2016 Anne Thorne

Reviewed By: AJ 6/17/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.4	Good				

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Route 3 Box 7

Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other

☐ EDD (Type) _Please provide EDD

Turn-Around Time:
☒ Standard ☐ Rush

Project Name:
OCD Central Landfarm Semiannual Sampling

Project #:
697-052-004

Project Manager:
Ed Riege

Sampler: Joey Waldmann

On Ice: ☒ Yes ☐ No

Sample Temperature: 4.4

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1606995	Vadose Zone List (see attached)	NMAC List (see attached)	TPH-DRO, GRO, and MRO by 8015M	BTEX (8260)	Air Bubbles (Y or N)
6/16/2016	1220	soil	CentralOCD-01-6/16/2016	8ox - 3, 4oz - 1	none	-001	X	X			
6/16/2016	1250	soil	CentralOCD-02-6/16/2016	8ox - 3, 4oz - 1	none	-002	X	X			
6/16/2016	1320	soil	CentralOCD-03-6/16/2016	8ox - 3, 4oz - 1	none	-003	X	X			
6/16/2016	1145	soil	CentralOCD-04-6/16/2016	8ox - 3, 4oz - 1	none	-004	X	X			
6/16/2016	———	soil	BD-6/16/2016	8ox - 3, 4oz - 1	none	-005	X	X			
6/16/2016	1250	soil	CentralOCD-02-6/16/2016-MS	8ox - 3, 4oz - 1	none	-002	X	X			
6/16/2016	1250	soil	CentralOCD-02-6/16/2016-MSD	8ox - 3, 4oz - 1	none	-002	X	X			
6/16/2016	1340	soil	CentralOCD-TZ-6/16/2016	8oz - 3, 4oz - 1	none	-006	X	X	X		
6/16/2016	1400	water	EB-6/16/2016	VOA - 3	HCL	-007				X	
6/16/2016	1415	water	FB-6/16/2016	VOA - 3	HCL	-008				X	
		water	Trip Blank	VOA - 3	HCL	-009				X	

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date Time
6/17/2016	10:00	Joey Waldmann		06/17/16 1000
Date:	Time:	Relinquished by:	Received by:	Date Time

Remarks: Please cc Grant Price (gprice@trihydro.com) with results. Call Grant @ 307-745-7474 w/ questions. **Verify that Reporting limits comply with those shown on the attached. PCBs need DL of 0.02 mg/kg. Data report and package w/ Trihydro EDD needed within 10 days of reciept. Any way to prevent low surrogate recoveries as w/ Sept. 2014 data package (Rpt 1409874)?**

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

VADOSE ZONE ANALYTES AND REPORTING LIMITS, CENTRAL OIL CONSERVATION DIVISION LANDFARM
WESTERN REFINING SOUTHWEST, GALLUP REFINERY, GALLUP, NEW MEXICO

Analyte	Analytical Method	Reporting Units	Requested Reporting Limit
Chloride	E300	mg/kg	30
Benzene	SW8260B	mg/kg	0.050
Ethylbenzene	SW8260B	mg/kg	0.050
Toluene	SW8260B	mg/kg	0.050
Xylenes, Total	SW8260B	mg/kg	0.100
Petroleum Hydrocarbons, TR	E418.1	mg/kg	20

NMAC LIST ANALYTES AND REPORTING LIMITS, CONSTITUENTS LISTED IN SUBSECTIONS A AND B OF 20.6.2.3103 NMAC, CENTRAL OIL CONSERVATION DIVISION LANDFARM WESTERN REFINING SOUTHWEST, GALLUP REFINERY, GALLUP, NEW MEXICO

20.6.2.3103 NMAC (6/9/2016)

A. **Human Health Standards**-Ground water shall meet the standards of Subsection A and B of this section unless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria as set forth in the definition of toxic pollutant in Section 20.6.2.1101 NMAC for the combination of contaminants, or the Human Health Standard of Subsection A of Section 20.6.2.3103 NMAC for each contaminant shall apply, whichever is more stringent. Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.

-1 Arsenic (As)	0.1 mg/l
-2 Barium (Ba)	1.0 mg/l
-3 Cadmium (Cd)	0.01 mg/l
-4 Chromium (Cr)	0.05 mg/l
-5 Cyanide (CN)	0.2 mg/l
-6 Fluoride (F)	1.6 mg/l
-7 Lead (Pb)	0.05 mg/l
-8 Total Mercury (Hg)	0.002 mg/l
-9 Nitrate (NO_3 as N)	10.0 mg/l
-10 Selenium (Se)	0.05 mg/l
-11 Silver (Ag)	0.05 mg/l
-12 Uranium (U)	0.03 mg/l
-13 Radioactivity: Combined Radium-226 & Radium-228	30 pCi/l
-14 Benzene	0.01 mg/l
~~**-15** Polychlorinated biphenyls (PCB's)~~	~~0.001 mg/l~~
-16 Toluene	0.75 mg/l
-17 Carbon Tetrachloride	0.01 mg/l
-18 1,2-dichloroethane (EDC)	0.01 mg/l
-19 1,1-dichloroethylene (1,1-DCE)	0.005 mg/l
-20 1,1,2,2-tetrachloroethylene (PCE)	0.02 mg/l
-21 1,1,2-trichloroethylene (TCE)	0.1 mg/l
-22 ethylbenzene	0.75 mg/l
-23 total xylenes	0.62 mg/l
-24 methylene chloride	0.1 mg/l
-25 chloroform	0.1 mg/l
-26 1,1-dichloroethane	0.025 mg/l
-27 ethylene dibromide (EDB)	0.0001 mg/l
-28 1,1,1-trichloroethane	0.06 mg/l
-29 1,1,2-trichloroethane	0.01 mg/l
-30 1,1,2,2-tetrachloroethane	0.01 mg/l
-31 vinyl chloride	0.001 mg/l
-32 PAHs: total naphthalene plus monomethylnaphthalenes	0.03 mg/l
-33 benzo-a-pyrene	0.0007 mg/l

B. **Other Standards for Domestic Water Supply**

-1 Chloride (Cl)	250.0 mg/l
-2 Copper (Cu)	1.0 mg/l
-3 Iron (Fe)	1.0 mg/l
-4 Manganese (Mn)	0.2 mg/l
-6 Phenols	0.005 mg/l
-7 Sulfate (SO_4)	600.0 mg/l
-8 Total Dissolved Solids (TDS)	1000.0 mg/l
-9 Zinc (Zn)	10.0 mg/l
-10 pH	between 6 and 9

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 22, 2016

Ed Riege

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: OCD Central Landfarm Semiannual Sampling OrderNo.: 1609455

Dear Ed Riege:

Hall Environmental Analysis Laboratory received 11 sample(s) on 9/8/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sampling
Lab Order: 1609455

Lab ID: 1609455-001 **Collection Date:** 9/6/2016 4:13:00 PM
Client Sample ID: CentralOCD-1021-09062016-F **Matrix:**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	270	12	30		mg/Kg	20	9/19/2016 9:00:29 PM	27590

Lab ID: 1609455-002 **Collection Date:** 9/6/2016 4:07:00 PM
Client Sample ID: CentralOCD-1021-09062016-SW-N **Matrix:**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	160	12	30		mg/Kg	20	9/19/2016 9:12:53 PM	27590

Lab ID: 1609455-003 **Collection Date:** 9/6/2016 4:20:00 PM
Client Sample ID: CentralOCD-1021-09062016-SW-S **Matrix:**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	280	12	30		mg/Kg	20	9/19/2016 9:25:18 PM	27590

Lab ID: 1609455-004 **Collection Date:** 9/6/2016 3:55:00 PM
Client Sample ID: CentralOCD-1021-09062016-SW-E **Matrix:**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	130	12	30		mg/Kg	20	9/20/2016 12:53:42 PM	27599

Lab ID: 1609455-005 **Collection Date:** 9/6/2016 4:25:00 PM
Client Sample ID: CentralOCD-1021-09062016-SW-W **Matrix:**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	490	12	30		mg/Kg	20	9/20/2016 1:06:07 PM	27599

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sampling
Lab Order: 1609455

Lab ID: 1609455-006 **Collection Date:** 9/6/2016 1:30:00 PM
Client Sample ID: CentralOCD-2271-09062016-F **Matrix:**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	170	12	30		mg/Kg	20	9/20/2016 1:18:31 PM	27599

Lab ID: 1609455-007 **Collection Date:** 9/6/2016 1:20:00 PM
Client Sample ID: CentralOCD-2271-09062016-SW-N **Matrix:**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	2200	31	75		mg/Kg	50	9/22/2016 5:18:25 AM	27599

Lab ID: 1609455-008 **Collection Date:** 9/6/2016 1:37:00 PM
Client Sample ID: CentralOCD-2271-09062016-SW-S **Matrix:**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	160	12	30		mg/Kg	20	9/20/2016 1:43:20 PM	27599

Lab ID: 1609455-009 **Collection Date:** 9/6/2016 1:05:00 PM
Client Sample ID: CentralOCD-2271-09062016-SW-E **Matrix:**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	1500	30	75		mg/Kg	50	9/22/2016 5:30:50 AM	27599

Lab ID: 1609455-010 **Collection Date:** 9/6/2016 1:45:00 PM
Client Sample ID: CentralOCD-2271-09062016-SW-W **Matrix:**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	300	12	30		mg/Kg	20	9/20/2016 2:45:23 PM	27599

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sampling
Lab Order: 1609455

Lab ID: 1609455-011 **Collection Date:** 9/6/2016
Client Sample ID: CentralOCD-BD-09062016 **Matrix:**

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Chloride	110	12	30		mg/Kg	20	9/20/2016 3:22:36 PM	27599

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609455**

22-Sep-16

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID	**MB-27590**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**27590**	RunNo:	**37316**					
Prep Date:	**9/19/2016**	Analysis Date:	**9/19/2016**	SeqNo:	**1158856**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-27590**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**27590**	RunNo:	**37316**					
Prep Date:	**9/19/2016**	Analysis Date:	**9/19/2016**	SeqNo:	**1158857**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.0	90	110			

Sample ID	**MB-27599**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**27599**	RunNo:	**37349**					
Prep Date:	**9/20/2016**	Analysis Date:	**9/20/2016**	SeqNo:	**1160293**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-27599**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**27599**	RunNo:	**37349**					
Prep Date:	**9/20/2016**	Analysis Date:	**9/20/2016**	SeqNo:	**1160294**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.1	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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Albuquerque, NM 87109
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Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1609455** RcptNo: **1**

Received by/date: AG 09/08/16

Logged By: **Ashley Gallegos** **9/8/2016 5:10:00 PM** AG

Completed By: **Ashley Gallegos** **9/9/2016 12:34:02 PM** AG

Reviewed By: JC 09/12/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: West Texas Refining

Mailing Address: Route 3 Box 7

Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other_____
☐ EDD (Type) _Please provide EDD_____

Turn-Around Time:
☒ Standard ☐ Rush_____

Project Name:
OCD Central Landfarm Semiannual Sampling

Project #:
697-052-004

Project Manager:
Ed Riege

Sampler: Zac Bitsuie
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENT ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609455	Chloride by EPA 300.0	Air Bubbles (Y or N)
9/6/2016	1613	soil	CentralOCD-1021-09062016-F	two 4-oz	none	-001	X	
9/6/2016	1607	soil	CentralOCD-1021-09062016-SW-N	two 4-oz	none	-002	X	
9/6/2016	1620	soil	CentralOCD-1021-09062016-SW-S	two 4-oz	none	-003	X	
9/6/2016	1555	soil	CentralOCD-1021-09062016-SW-E	two 4-oz	none	-004	X	
9/6/2016	1625	soil	CentralOCD-1021-09062016-SW-W	two 4-oz	none	-005	X	
9/6/2016	1330	soil	CentralOCD-2271-09062016-F	two 4-oz	none	-006	X	
9/6/2016	1320	soil	CentralOCD-2271-09062016-SW-N	two 4-oz	none	-007	X	
9/6/2016	1337	soil	CentralOCD-2271-09062016-SW-S	two 4-oz	none	-008	X	
9/6/2016	1305	soil	CentralOCD-2271-09062016-SW-E	two 4-oz	none	-009	X	
9/6/2016	1345	soil	CentralOCD-2271-09062016-SW-W	two 4-oz	none	-010	X	
9/6/2016	1310	soil	CentralOCD-2271-09062016-SWE-MS	two 4-oz	none	-010009	X	
9/6/2016	1315	soil	CentralOCD-2271-09062016-SWE-MSD	two 4-oz	none	-010009	X	
9/6/2016	NA	soil	CentralOCD-BD-09062016	two 4-oz	none	-011	X	
9/6/2016	1635	water	EB-09062016	VOA - 3	HCL	-012	X	
9/6/2016	1640	water	FB-09062016	VOA - 3	HCL	-013	X	

Date:	Time:	Relinquished by:	Received by:	Date	Time
9-6-16	1830			9/8/16	1500
9/8/16	1110			09/08/16	1710

Remarks: Please cc Grant Price (gprice@trihydro.com) with results. Call Grant @ 307-745-7474 w/ questions. **Data report and package w/ Trihydro EDD needed within 10 days of reciept.**

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

APPENDIX G

HALL LABORATORY ANALYTICAL DATA

(ON ATTACHED CD)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

April 04, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: Quarterly GW Sampling OrderNo.: 1603150

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/2/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: STP1-NW
Project: Quarterly GW Sampling
Collection Date: 3/2/2016 9:20:00 AM
Lab ID: 1603150-001
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/7/2016 12:11:14 PM	24101
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/7/2016 12:11:14 PM	24101
Surr: DNOP	105	0	70-141		%Rec	1	3/7/2016 12:11:14 PM	24101
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	3/4/2016 12:47:58 PM	A32596
Surr: BFB	90.6	0	49.5-130		%Rec	1	3/4/2016 12:47:58 PM	A32596
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.14	0.0013	0.0020		mg/L	1	3/11/2016 5:21:24 PM	C32754
Cadmium	ND	0.00075	0.0020		mg/L	1	3/11/2016 5:21:24 PM	C32754
Chromium	ND	0.0018	0.0060		mg/L	1	3/11/2016 5:21:24 PM	C32754
Copper	ND	0.0040	0.0060		mg/L	1	3/16/2016 3:22:36 PM	C32831
Iron	0.13	0.0091	0.020		mg/L	1	3/16/2016 3:22:36 PM	C32831
Manganese	0.0038	0.00032	0.0020		mg/L	1	3/11/2016 5:21:24 PM	C32754
Silver	ND	0.0028	0.0050		mg/L	1	3/11/2016 5:21:24 PM	C32754
Zinc	0.020	0.0028	0.010		mg/L	1	3/16/2016 3:22:36 PM	C32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.19	0.0011	0.0020		mg/L	1	3/15/2016 11:50:53 AM	24075
Cadmium	ND	0.00062	0.0020		mg/L	1	3/15/2016 11:50:53 AM	24075
Chromium	0.0028	0.0022	0.0060	J	mg/L	1	3/15/2016 11:50:53 AM	24075
Copper	ND	0.0051	0.0060		mg/L	1	3/15/2016 11:50:53 AM	24075
Iron	3.6	0.036	0.10	*	mg/L	5	3/15/2016 11:52:41 AM	24075
Manganese	0.11	0.0015	0.0020	*	mg/L	1	3/15/2016 11:50:53 AM	24075
Silver	ND	0.0021	0.0050		mg/L	1	3/15/2016 11:50:53 AM	24075
Zinc	0.087	0.0039	0.010		mg/L	1	3/15/2016 11:50:53 AM	24075
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0050	0.00032	0.0050	J	mg/L	5	3/25/2016 5:38:04 PM	B33098
Lead	0.00030	0.00013	0.0025	J	mg/L	5	3/25/2016 5:38:04 PM	B33098
Selenium	0.015	0.0039	0.020	J	mg/L	20	3/25/2016 5:41:07 PM	B33098
Uranium	0.023	0.000024	0.0025		mg/L	5	3/28/2016 6:50:06 PM	B33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.0058	0.020		mg/L	20	3/14/2016 6:36:04 PM	24075
Lead	0.0044	0.00024	0.0025		mg/L	5	3/14/2016 6:26:59 PM	24075
Selenium	0.011	0.0025	0.020	J	mg/L	20	3/14/2016 6:36:04 PM	24075
Uranium	0.025	0.000025	0.0025		mg/L	5	3/14/2016 6:26:59 PM	24075
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/4/2016 7:55:27 AM	24081

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: STP1-NW
Project: Quarterly GW Sampling
Collection Date: 3/2/2016 9:20:00 AM
Lab ID: 1603150-001 **Matrix:** AQUEOUS **Received Date:** 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	ND	0.096	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Toluene	ND	0.089	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Methyl tert-butyl ether (MTBE)	0.47	0.21	1.0	J	µg/L	1	3/7/2016 5:51:16 PM	R32614
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Naphthalene	ND	0.083	2.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Acetone	3.8	0.88	10	J	µg/L	1	3/7/2016 5:51:16 PM	R32614
Bromobenzene	ND	0.080	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Bromoform	ND	0.10	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Bromomethane	ND	0.78	3.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
2-Butanone	ND	0.32	10		µg/L	1	3/7/2016 5:51:16 PM	R32614
Carbon disulfide	ND	0.60	10		µg/L	1	3/7/2016 5:51:16 PM	R32614
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Chloroethane	ND	0.15	2.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Chloroform	ND	0.089	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Chloromethane	ND	0.21	3.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Dibromomethane	ND	0.12	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/7/2016 5:51:16 PM	R32614

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: STP1-NW
Project: Quarterly GW Sampling
Collection Date: 3/2/2016 9:20:00 AM
Lab ID: 1603150-001 **Matrix:** AQUEOUS **Received Date:** 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
2-Hexanone	ND	0.36	10		µg/L	1	3/7/2016 5:51:16 PM	R32614
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/7/2016 5:51:16 PM	R32614
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Styrene	ND	0.095	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/7/2016 5:51:16 PM	R32614
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/7/2016 5:51:16 PM	R32614
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	1	3/7/2016 5:51:16 PM	R32614
Surr: 4-Bromofluorobenzene	109	0	70-130		%Rec	1	3/7/2016 5:51:16 PM	R32614
Surr: Dibromofluoromethane	115	0	70-130		%Rec	1	3/7/2016 5:51:16 PM	R32614
Surr: Toluene-d8	108	0	70-130		%Rec	1	3/7/2016 5:51:16 PM	R32614

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1603150-002
Matrix: TRIP BLANK
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	ND	0.096	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Toluene	ND	0.089	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Naphthalene	ND	0.083	2.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Acetone	ND	0.88	10		µg/L	1	3/7/2016 8:15:23 PM	R32614
Bromobenzene	ND	0.080	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Bromoform	ND	0.10	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Bromomethane	ND	0.78	3.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
2-Butanone	ND	0.32	10		µg/L	1	3/7/2016 8:15:23 PM	R32614
Carbon disulfide	ND	0.60	10		µg/L	1	3/7/2016 8:15:23 PM	R32614
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Chloroethane	ND	0.15	2.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Chloroform	ND	0.089	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Chloromethane	ND	0.21	3.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Dibromomethane	ND	0.12	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/7/2016 8:15:23 PM	R32614

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1603150-002
Matrix: TRIP BLANK
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
2-Hexanone	ND	0.36	10		µg/L	1	3/7/2016 8:15:23 PM	R32614
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/7/2016 8:15:23 PM	R32614
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Styrene	ND	0.095	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/7/2016 8:15:23 PM	R32614
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/7/2016 8:15:23 PM	R32614
Surr: 1,2-Dichloroethane-d4	89.9	0	70-130		%Rec	1	3/7/2016 8:15:23 PM	R32614
Surr: 4-Bromofluorobenzene	104	0	70-130		%Rec	1	3/7/2016 8:15:23 PM	R32614
Surr: Dibromofluoromethane	105	0	70-130		%Rec	1	3/7/2016 8:15:23 PM	R32614
Surr: Toluene-d8	104	0	70-130		%Rec	1	3/7/2016 8:15:23 PM	R32614

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603150**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB-C**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C32754**	RunNo: **32754**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1002498** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C32754**	RunNo: **32754**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1002499** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.2	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	99.2	85	115			
Manganese	0.49	0.0020	0.5000	0	97.7	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C32754**	RunNo: **32754**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1002500** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0018	0.0020	0.002000	0	90.0	50	150			J
Cadmium	0.0022	0.0020	0.002000	0	108	50	150			
Chromium	0.0058	0.0060	0.006000	0	97.3	50	150			J
Manganese	0.0018	0.0020	0.002000	0	92.5	50	150			J
Silver	0.0048	0.0050	0.005000	0	96.8	50	150			J

Sample ID **MB-C**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006189** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								
Iron	ND	0.020								
Zinc	ND	0.010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603150**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**LCS-C**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID:	**C32831**	RunNo:	**32831**					
Prep Date:		Analysis Date:	**3/16/2016**	SeqNo:	**1006190**	Units:	**mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper		0.48	0.0060	0.5000	0	96.9	85	115			
Iron		0.50	0.020	0.5000	0	101	85	115			
Zinc		0.50	0.010	0.5000	0	99.8	85	115			

Sample ID	**LLLCS-C**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**C32831**	RunNo:	**32831**					
Prep Date:		Analysis Date:	**3/16/2016**	SeqNo:	**1006191**	Units:	**mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper		0.0042	0.0060	0.006000	0	69.8	50	150			J
Iron		0.019	0.020	0.02000	0	96.2	50	150			J
Zinc		0.0057	0.010	0.005000	0	115	50	150			J

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603150**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB-24075**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **24075**	RunNo: **32607**
Prep Date: **3/3/2016**	Analysis Date: **3/7/2016**	SeqNo: **997674** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-24075**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **24075**	RunNo: **32607**
Prep Date: **3/3/2016**	Analysis Date: **3/7/2016**	SeqNo: **997675** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	99.0	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.49	0.0060	0.5000	0	98.0	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Manganese	0.48	0.0020	0.5000	0	96.6	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.50	0.010	0.5000	0	101	85	115			

Sample ID **LLLCS-24075**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **24075**	RunNo: **32607**
Prep Date: **3/3/2016**	Analysis Date: **3/7/2016**	SeqNo: **997676** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0017	0.0020	0.002000	0	84.0	50	150			J
Cadmium	0.0019	0.0020	0.002000	0	96.5	50	150			J
Chromium	0.0065	0.0060	0.006000	0	108	50	150			
Copper	0.0059	0.0060	0.006000	0	98.0	50	150			J
Iron	0.020	0.020	0.02000	0	101	50	150			
Manganese	0.0022	0.0020	0.002000	0	111	50	150			
Silver	0.0051	0.0050	0.005000	0	102	50	150			
Zinc	0.0057	0.010	0.005000	0	115	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603150**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33098**	RunNo: **33098**
Prep Date:	Analysis Date: **3/25/2016**	SeqNo: **1015701** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	93.2	85	115			
Lead	0.012	0.00050	0.01250	0	93.0	85	115			
Selenium	0.023	0.0010	0.02500	0	92.7	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33098**	RunNo: **33098**
Prep Date:	Analysis Date: **3/25/2016**	SeqNo: **1015702** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	101	50	150			
Lead	0.00049	0.00050	0.0005000	0	97.2	50	150			J
Selenium	0.00095	0.0010	0.001000	0	94.5	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33098**	RunNo: **33098**
Prep Date:	Analysis Date: **3/25/2016**	SeqNo: **1015703** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33120**	RunNo: **33120**
Prep Date:	Analysis Date: **3/28/2016**	SeqNo: **1016767** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.012	0.00050	0.01250	0	95.6	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33120**	RunNo: **33120**
Prep Date:	Analysis Date: **3/28/2016**	SeqNo: **1016769** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.00049	0.00050	0.0005000	0	98.4	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603150**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33120**	RunNo: **33120**
Prep Date:	Analysis Date: **3/28/2016**	SeqNo: **1016771** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.000011	0.00050								J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603150**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-24075**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**24075**	RunNo:	**32687**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000380**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-24075**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**24075**	RunNo:	**32687**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000383**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.1	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.025	0.0010	0.02500	0	98.0	85	115			
Uranium	0.012	0.00050	0.01250	0	98.8	85	115			

Sample ID	**MSLLLCS-24075**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**24075**	RunNo:	**32687**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000386**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00087	0.0010	0.001000	0	86.9	50	150			J
Lead	0.00046	0.00050	0.0005000	0	91.5	50	150			J
Selenium	0.00081	0.0010	0.001000	0	81.0	50	150			J
Uranium	0.00044	0.00050	0.0005000	0	87.4	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603150**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-24081**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**24081**	RunNo:	**32562**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/4/2016**	SeqNo:	**996234**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-24081**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**24081**	RunNo:	**32562**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/4/2016**	SeqNo:	**996235**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	107	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603150**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS-24101**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **24101**	RunNo: **32603**
Prep Date: **3/7/2016**	Analysis Date: **3/7/2016**	SeqNo: **997914** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.9	1.0	5.000	0	118	71.3	139			
Surr: DNOP	0.50		0.5000		99.7	70	141			

Sample ID **MB-24101**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **24101**	RunNo: **32603**
Prep Date: **3/7/2016**	Analysis Date: **3/7/2016**	SeqNo: **997915** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.91		1.000		90.8	70	141			

Sample ID **1603150-001BMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **STP1-NW**	Batch ID: **24101**	RunNo: **32603**
Prep Date: **3/7/2016**	Analysis Date: **3/7/2016**	SeqNo: **997917** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.7	1.0	5.000	0	114	59.4	160			
Surr: DNOP	0.47		0.5000		93.5	70	141			

Sample ID **1603150-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **STP1-NW**	Batch ID: **24101**	RunNo: **32603**
Prep Date: **3/7/2016**	Analysis Date: **3/7/2016**	SeqNo: **997918** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.7	1.0	5.000	0	113	59.4	160	0.940	20	
Surr: DNOP	0.45		0.5000		89.6	70	141	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603150**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **A32596**	RunNo: **32596**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997207** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		95.0	49.5	130			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **A32596**	RunNo: **32596**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997208** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	103	80	120			
Surr: BFB	21		20.00		106	49.5	130			

Sample ID **1603150-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **STP1-NW**	Batch ID: **A32596**	RunNo: **32596**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997210** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	101	70	130			
Surr: BFB	21		20.00		107	49.5	130			

Sample ID **1603150-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **STP1-NW**	Batch ID: **A32596**	RunNo: **32596**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997211** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	99.9	70	130	1.55	20	
Surr: BFB	21		20.00		106	49.5	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603150**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32614**	RunNo: **32614**
Prep Date:	Analysis Date: **3/7/2016**	SeqNo: **997827** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	0.15	1.0								J
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	0.32	4.0								J
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	0.16	1.0								J
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603150**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32614**	RunNo: **32614**
Prep Date:	Analysis Date: **3/7/2016**	SeqNo: **997827** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11		10.00		106	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.9	70	130			
Surr: Dibromofluoromethane	11		10.00		115	70	130			
Surr: Toluene-d8	9.5		10.00		94.7	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32614**	RunNo: **32614**
Prep Date:	Analysis Date: **3/7/2016**	SeqNo: **997830** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	70	130			
Toluene	20	1.0	20.00	0	99.2	70	130			
Chlorobenzene	21	1.0	20.00	0	104	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603150**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32614**	RunNo: **32614**
Prep Date:	Analysis Date: **3/7/2016**	SeqNo: **997830** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	22	1.0	20.00	0	110	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	93.8	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.8	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	9.7		10.00		97.2	70	130			

Sample ID **1603150-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **STP1-NW**	Batch ID: **R32614**	RunNo: **32614**
Prep Date:	Analysis Date: **3/7/2016**	SeqNo: **998313** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	24	1.0	20.00	0	120	70	130			
Toluene	21	1.0	20.00	0	103	70	130			
Chlorobenzene	22	1.0	20.00	0	111	70	130			
1,1-Dichloroethene	24	1.0	20.00	0	118	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	107	70	130			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.3	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			
Surr: Toluene-d8	9.7		10.00		97.1	70	130			

Sample ID **1603150-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **STP1-NW**	Batch ID: **R32614**	RunNo: **32614**
Prep Date:	Analysis Date: **3/7/2016**	SeqNo: **998314** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	114	70	130	4.99	20	
Toluene	20	1.0	20.00	0	100	70	130	2.99	20	
Chlorobenzene	21	1.0	20.00	0	105	70	130	5.81	20	
1,1-Dichloroethene	23	1.0	20.00	0	116	70	130	1.56	20	
Trichloroethene (TCE)	20	1.0	20.00	0	99.8	70	130	7.36	20	
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130	0	0	
Surr: Dibromofluoromethane	12		10.00		116	70	130	0	0	
Surr: Toluene-d8	9.8		10.00		98.0	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505 345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1603150 RcptNo: 1

Received by/date: 03/02/16

Logged By: Ashley Gallegos 3/2/2016 4:16:00 PM

Completed By: Ashley Gallegos 3/3/2016 9:04:59 AM

Reviewed By: 03/03/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 12 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? No
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: AG 03/03/16

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: ____ Date: ____

By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: ____

Client Instructions: ____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: WESTERN REFINING SW, INC.

ALLUP REFINERY

Mailing Address: 92 GIANT CROSSING ROAD

GALLUP, NM 87301

Phone #: 505-722-0231

Email or Fax#: CHERYL.JOHNSON@WNR.COM

QA/QC Package: Standard [X] Level 4 (Full Validation)

Accreditation: [X] NELAP [ ] Other

EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush

Project Name: QUARTERLY GW SAMPLING

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: [X] Yes [ ] No

Sample Temperature: 1.0

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
3/2/16	0920	WATER	STP1-NW	40 mL VOA-6	HCL	1603150-001
				250mL AMBER-1	NEAT	
				125 mL PLASTIC-1	H_2SO_4	
				125 mL PLASTIC-1	HNO_3	
				500 mL PLASTIC-1	HNO_3	
				500 mL PLASTIC-1	NEAT	
			Trip Blank 3/03/16			

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	WQCC Metals (Total & Dissolved)			Air Bubbles (Y or N)
		✓							X					
		✓												
											✓			
											✓			
											✓			
											✓			

Remarks:

Relinquished by:	Time:	Received by:	Date	Time
	1300		3/2/16	1315
	1616		03/03/16	1610

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

April 14, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: Quarterly GW Sampling OrderNo.: 1603154

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 3/2/2016 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued April 01, 2016.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OAPIS-1
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 2:25:00 PM
Lab ID: 1603154-001 **Matrix:** AQUEOUS **Received Date:** 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	6.1	0.69	1.0		mg/L	1	3/7/2016 3:27:14 PM	24101
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/7/2016 3:27:14 PM	24101
Surr: DNOP	96.9	0	70-141		%Rec	1	3/7/2016 3:27:14 PM	24101
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.86	0.025	0.050		mg/L	1	3/4/2016 4:53:21 PM	A32596
Surr: BFB	200	0	49.5-130	S	%Rec	1	3/4/2016 4:53:21 PM	A32596
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	2.0	0.23	1.0		mg/L	10	3/4/2016 5:44:47 PM	R32618
Chloride	1700	5.5	100		mg/L	200	3/14/2016 8:29:07 PM	A32799
Bromide	9.1	0.32	1.0		mg/L	10	3/4/2016 5:44:47 PM	R32618
Phosphorus, Orthophosphate (As P)	ND	2.2	5.0	H	mg/L	10	3/4/2016 5:44:47 PM	R32618
Sulfate	23	0.64	5.0		mg/L	10	3/4/2016 5:44:47 PM	R32618
Nitrate+Nitrite as N	ND	0.84	2.0		mg/L	10	3/29/2016 10:44:28 AM	R33179
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.62	0.0013	0.0020		mg/L	1	3/16/2016 3:38:53 PM	C32831
Cadmium	ND	0.00075	0.0020		mg/L	1	3/16/2016 3:38:53 PM	C32831
Calcium	150	1.3	5.0		mg/L	5	3/18/2016 1:17:07 PM	B32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/16/2016 3:38:53 PM	C32831
Copper	ND	0.0040	0.0060		mg/L	1	3/16/2016 3:38:53 PM	C32831
Iron	4.6	0.045	0.10	*	mg/L	5	3/18/2016 1:17:07 PM	B32891
Magnesium	30	0.013	1.0		mg/L	1	3/16/2016 3:38:53 PM	C32831
Manganese	1.6	0.0016	0.010	*	mg/L	5	3/18/2016 1:17:07 PM	B32891
Potassium	3.9	0.18	1.0		mg/L	1	3/16/2016 3:38:53 PM	C32831
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 1:15:18 PM	B32891
Sodium	1400	1.9	20		mg/L	20	3/18/2016 1:19:11 PM	B32891
Zinc	0.024	0.0028	0.010		mg/L	1	3/16/2016 3:38:53 PM	C32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.72	0.0011	0.0020		mg/L	1	3/15/2016 11:41:19 AM	24115
Cadmium	ND	0.00062	0.0020		mg/L	1	3/15/2016 11:41:19 AM	24115
Chromium	ND	0.0022	0.0060		mg/L	1	3/15/2016 11:41:19 AM	24115
Copper	ND	0.0051	0.0060		mg/L	1	3/15/2016 11:41:19 AM	24115
Iron	5.7	0.072	0.20	*	mg/L	10	3/16/2016 4:35:09 PM	24115
Manganese	1.7	0.015	0.020	*	mg/L	10	3/16/2016 4:35:09 PM	24115
Silver	ND	0.0021	0.0050		mg/L	1	3/25/2016 8:06:58 AM	24413
Zinc	0.016	0.0039	0.010		mg/L	1	3/15/2016 11:41:19 AM	24115
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.010	0.00032	0.0050	*	mg/L	5	3/25/2016 5:44:10 PM	B33098

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OAPIS-1
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 2:25:00 PM
Lab ID: 1603154-001 **Matrix:** AQUEOUS **Received Date:** 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00092	0.00013	0.0025	J	mg/L	5	3/25/2016 5:44:10 PM	B33098
Selenium	0.014	0.0039	0.020	J	mg/L	20	3/25/2016 5:47:14 PM	B33098
Uranium	0.015	0.000024	0.0025		mg/L	5	3/28/2016 6:53:09 PM	B33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0097	0.0015	0.0050		mg/L	5	3/14/2016 6:39:05 PM	24115
Lead	0.0034	0.00024	0.0025		mg/L	5	3/14/2016 6:39:05 PM	24115
Selenium	0.011	0.0012	0.010		mg/L	10	3/14/2016 6:42:05 PM	24115
Uranium	0.016	0.000025	0.0025		mg/L	5	3/14/2016 6:39:05 PM	24115
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/8/2016 11:17:53 AM	24112
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Aniline	ND	9.8	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Anthracene	ND	6.6	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/13/2016 8:49:35 PM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/13/2016 8:49:35 PM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Carbazole	ND	7.2	10		µg/L	1	3/13/2016 8:49:35 PM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/13/2016 8:49:35 PM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/13/2016 8:49:35 PM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/13/2016 8:49:35 PM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/13/2016 8:49:35 PM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Chrysene	ND	6.6	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/13/2016 8:49:35 PM	24121

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OAPIS-1
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 2:25:00 PM
Lab ID: 1603154-001 **Matrix:** AQUEOUS **Received Date:** 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/13/2016 8:49:35 PM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/13/2016 8:49:35 PM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/13/2016 8:49:35 PM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/13/2016 8:49:35 PM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/13/2016 8:49:35 PM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/13/2016 8:49:35 PM	24121
2,4-Dimethylphenol	7.0	4.7	10	J	µg/L	1	3/13/2016 8:49:35 PM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/13/2016 8:49:35 PM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/13/2016 8:49:35 PM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/13/2016 8:49:35 PM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Fluorene	ND	7.2	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Isophorone	ND	8.1	10		µg/L	1	3/13/2016 8:49:35 PM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/13/2016 8:49:35 PM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/13/2016 8:49:35 PM	24121
2-Methylphenol	ND	8.2	10		µg/L	1	3/13/2016 8:49:35 PM	24121
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/13/2016 8:49:35 PM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/13/2016 8:49:35 PM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/13/2016 8:49:35 PM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/13/2016 8:49:35 PM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/13/2016 8:49:35 PM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/13/2016 8:49:35 PM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/13/2016 8:49:35 PM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/13/2016 8:49:35 PM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/13/2016 8:49:35 PM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Phenol	ND	5.1	10		µg/L	1	3/13/2016 8:49:35 PM	24121

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OAPIS-1
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 2:25:00 PM
Lab ID: 1603154-001 **Matrix:** AQUEOUS **Received Date:** 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Pyridine	ND	6.7	10		µg/L	1	3/13/2016 8:49:35 PM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/13/2016 8:49:35 PM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/13/2016 8:49:35 PM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/13/2016 8:49:35 PM	24121
Surr: 2-Fluorophenol	46.3	0	4.63-113		%Rec	1	3/13/2016 8:49:35 PM	24121
Surr: Phenol-d5	40.3	0	4.13-124		%Rec	1	3/13/2016 8:49:35 PM	24121
Surr: 2,4,6-Tribromophenol	72.1	0	5.14-132		%Rec	1	3/13/2016 8:49:35 PM	24121
Surr: Nitrobenzene-d5	76.8	0	9.13-140		%Rec	1	3/13/2016 8:49:35 PM	24121
Surr: 2-Fluorobiphenyl	78.6	0	10.8-132		%Rec	1	3/13/2016 8:49:35 PM	24121
Surr: 4-Terphenyl-d14	73.4	0	12.9-107		%Rec	1	3/13/2016 8:49:35 PM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	76	0.096	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
Toluene	0.60	0.089	1.0	J	µg/L	1	3/8/2016 5:43:10 PM	R32660
Ethylbenzene	9.8	0.11	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
Methyl tert-butyl ether (MTBE)	260	2.1	10		µg/L	10	3/8/2016 5:15:00 PM	R32660
1,2,4-Trimethylbenzene	2.8	0.10	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
1,2-Dichloroethane (EDC)	0.62	0.053	1.0	J	µg/L	1	3/8/2016 5:43:10 PM	R32660
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
Naphthalene	1.4	0.083	2.0	J	µg/L	1	3/8/2016 5:43:10 PM	R32660
1-Methylnaphthalene	13	0.20	4.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
Acetone	34	0.88	10		µg/L	1	3/8/2016 5:43:10 PM	R32660
Bromobenzene	ND	0.080	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
Bromoform	ND	0.10	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
Bromomethane	ND	0.78	3.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
2-Butanone	5.5	0.32	10	J	µg/L	1	3/8/2016 5:43:10 PM	R32660
Carbon disulfide	ND	0.60	10		µg/L	1	3/8/2016 5:43:10 PM	R32660
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
Chloroethane	ND	0.15	2.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
Chloroform	ND	0.089	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
Chloromethane	ND	0.21	3.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OAPIS-1
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 2:25:00 PM
Lab ID: 1603154-001 **Matrix:** AQUEOUS **Received Date:** 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
Dibromomethane	ND	0.12	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
1,1-Dichloroethane	1.2	0.11	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
2-Hexanone	ND	0.36	10		µg/L	1	3/8/2016 5:43:10 PM	R32660
Isopropylbenzene	1.4	0.098	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
4-Isopropyltoluene	0.38	0.14	1.0	J	µg/L	1	3/8/2016 5:43:10 PM	R32660
4-Methyl-2-pentanone	1.9	0.15	10	J	µg/L	1	3/8/2016 5:43:10 PM	R32660
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
n-Butylbenzene	0.27	0.16	3.0	J	µg/L	1	3/8/2016 5:43:10 PM	R32660
n-Propylbenzene	1.5	0.13	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
sec-Butylbenzene	0.33	0.11	1.0	J	µg/L	1	3/8/2016 5:43:10 PM	R32660
Styrene	ND	0.095	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/8/2016 5:43:10 PM	R32660
Xylenes, Total	3.7	0.32	1.5		µg/L	1	3/8/2016 5:43:10 PM	R32660
Surr: 1,2-Dichloroethane-d4	96.5	0	70-130		%Rec	1	3/8/2016 5:43:10 PM	R32660

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OAPIS-1
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 2:25:00 PM
Lab ID: 1603154-001 **Matrix:** AQUEOUS **Received Date:** 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 4-Bromofluorobenzene	115	0	70-130		%Rec	1	3/8/2016 5:43:10 PM	R32660
Surr: Dibromofluoromethane	101	0	70-130		%Rec	1	3/8/2016 5:43:10 PM	R32660
Surr: Toluene-d8	101	0	70-130		%Rec	1	3/8/2016 5:43:10 PM	R32660

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EAST LDU
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 4:30:00 PM
Lab ID: 1603154-002
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	21	0.69	1.0		mg/L	1	3/7/2016 3:48:53 PM	24101
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/7/2016 3:48:53 PM	24101
Surr: DNOP	99.6	0	70-141		%Rec	1	3/7/2016 3:48:53 PM	24101
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	5.6	0.25	0.50		mg/L	10	3/4/2016 5:17:55 PM	A32596
Surr: BFB	135	0	49.5-130	S	%Rec	10	3/4/2016 5:17:55 PM	A32596
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.12	0.0013	0.0020		mg/L	1	3/16/2016 3:40:42 PM	C32831
Cadmium	ND	0.00075	0.0020		mg/L	1	3/16/2016 3:40:42 PM	C32831
Chromium	0.41	0.0018	0.0060	*	mg/L	1	3/16/2016 3:40:42 PM	C32831
Copper	ND	0.0040	0.0060		mg/L	1	3/16/2016 3:40:42 PM	C32831
Iron	0.099	0.0091	0.020		mg/L	1	3/16/2016 3:40:42 PM	C32831
Manganese	7.5	0.0065	0.040	*	mg/L	20	3/16/2016 3:47:17 PM	C32831
Silver	ND	0.0028	0.0050		mg/L	1	3/28/2016 3:04:10 PM	A33103
Zinc	0.017	0.0028	0.010		mg/L	1	3/16/2016 3:40:42 PM	C32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.13	0.0011	0.0020		mg/L	1	3/15/2016 12:04:39 PM	24075
Cadmium	ND	0.00062	0.0020		mg/L	1	3/15/2016 12:04:39 PM	24075
Chromium	0.47	0.0022	0.0060	*	mg/L	1	3/15/2016 12:04:39 PM	24075
Copper	ND	0.0051	0.0060		mg/L	1	3/15/2016 12:04:39 PM	24075
Iron	1.5	0.036	0.10	*	mg/L	5	3/15/2016 12:06:25 PM	24075
Manganese	8.0	0.015	0.020	*	mg/L	10	3/16/2016 4:37:06 PM	24075
Silver	ND	0.0021	0.0050		mg/L	1	3/25/2016 8:10:00 AM	24413
Zinc	0.056	0.0039	0.010		mg/L	1	3/24/2016 12:18:48 PM	24075
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0048	0.000065	0.0010		mg/L	1	3/24/2016 6:03:04 PM	B33051
Lead	ND	0.00013	0.0025		mg/L	5	3/25/2016 5:50:17 PM	B33098
Selenium	0.0036	0.00019	0.0010		mg/L	1	3/24/2016 6:03:04 PM	B33051
Uranium	0.00044	0.000024	0.0025	J	mg/L	5	3/28/2016 7:02:23 PM	B33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0046	0.00029	0.0010		mg/L	1	3/11/2016 5:28:38 PM	24075
Lead	0.00026	0.000047	0.00050	J	mg/L	1	3/11/2016 5:28:38 PM	24075
Selenium	0.0013	0.00062	0.0050	J	mg/L	5	3/14/2016 6:51:10 PM	24075
Uranium	0.00048	0.0000049	0.00050	J	mg/L	1	3/11/2016 5:28:38 PM	24075
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000065	0.000053	0.00020	J	mg/L	1	3/4/2016 8:01:52 AM	24081

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EAST LDU
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 4:30:00 PM
Lab ID: 1603154-002
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: **DJF**	
Benzene	410	4.8	50		µg/L	50	3/8/2016 6:11:27 PM	A32660
Toluene	30	4.5	50	J	µg/L	50	3/8/2016 6:11:27 PM	A32660
Ethylbenzene	270	5.6	50		µg/L	50	3/8/2016 6:11:27 PM	A32660
Methyl tert-butyl ether (MTBE)	11	11	50	J	µg/L	50	3/8/2016 6:11:27 PM	A32660
1,2,4-Trimethylbenzene	180	5.2	50		µg/L	50	3/8/2016 6:11:27 PM	A32660
1,3,5-Trimethylbenzene	310	5.8	50		µg/L	50	3/8/2016 6:11:27 PM	A32660
Xylenes, Total	140	16	75		µg/L	50	3/8/2016 6:11:27 PM	A32660
Surr: 1,2-Dichloroethane-d4	99.9	0	70-130		%Rec	50	3/8/2016 6:11:27 PM	A32660
Surr: 4-Bromofluorobenzene	106	0	70-130		%Rec	50	3/8/2016 6:11:27 PM	A32660
Surr: Dibromofluoromethane	96.6	0	70-130		%Rec	50	3/8/2016 6:11:27 PM	A32660
Surr: Toluene-d8	101	0	70-130		%Rec	50	3/8/2016 6:11:27 PM	A32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: WEST LDU
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 4:50:00 PM
Lab ID: 1603154-003
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	7.2	0.69	1.0		mg/L	1	3/7/2016 4:10:42 PM	24101
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/7/2016 4:10:42 PM	24101
Surr: DNOP	100	0	70-141		%Rec	1	3/7/2016 4:10:42 PM	24101
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	1.9	0.13	0.25		mg/L	5	3/4/2016 5:42:29 PM	A32596
Surr: BFB	98.8	0	49.5-130		%Rec	5	3/4/2016 5:42:29 PM	A32596
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.29	0.0013	0.0020		mg/L	1	3/16/2016 3:49:04 PM	C32831
Cadmium	ND	0.00075	0.0020		mg/L	1	3/16/2016 3:49:04 PM	C32831
Chromium	1.4	0.0088	0.030	*	mg/L	5	3/11/2016 5:29:22 PM	C32754
Copper	ND	0.0040	0.0060		mg/L	1	3/16/2016 3:49:04 PM	C32831
Iron	0.13	0.0091	0.020		mg/L	1	3/16/2016 3:49:04 PM	C32831
Manganese	0.99	0.0016	0.010	*	mg/L	5	3/11/2016 5:29:22 PM	C32754
Silver	ND	0.0028	0.0050		mg/L	1	3/28/2016 3:06:01 PM	A33103
Zinc	0.0073	0.0028	0.010	J	mg/L	1	3/16/2016 3:49:04 PM	C32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.31	0.0011	0.0020		mg/L	1	3/15/2016 12:08:22 PM	24075
Cadmium	ND	0.00062	0.0020		mg/L	1	3/15/2016 12:08:22 PM	24075
Chromium	1.5	0.011	0.030	*	mg/L	5	3/15/2016 12:10:16 PM	24075
Copper	ND	0.0051	0.0060		mg/L	1	3/15/2016 12:08:22 PM	24075
Iron	0.60	0.0072	0.020	*	mg/L	1	3/15/2016 12:08:22 PM	24075
Manganese	1.1	0.0076	0.010	*	mg/L	5	3/15/2016 12:10:16 PM	24075
Silver	ND	0.0021	0.0050		mg/L	1	3/25/2016 8:13:25 AM	24413
Zinc	0.018	0.0039	0.010		mg/L	1	3/24/2016 12:20:52 PM	24075
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0066	0.00032	0.0050		mg/L	5	3/24/2016 6:06:07 PM	B33051
Lead	ND	0.00026	0.0050		mg/L	10	3/25/2016 5:53:20 PM	B33098
Selenium	0.0073	0.00097	0.0050		mg/L	5	3/24/2016 6:06:07 PM	B33051
Uranium	0.00082	0.000048	0.0050	J	mg/L	10	3/28/2016 7:05:26 PM	B33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0051	0.00029	0.0010		mg/L	1	3/11/2016 5:31:38 PM	24075
Lead	0.00022	0.000047	0.00050	J	mg/L	1	3/11/2016 5:31:38 PM	24075
Selenium	0.0034	0.00062	0.0050	J	mg/L	5	3/14/2016 6:54:10 PM	24075
Uranium	0.00066	0.0000049	0.00050		mg/L	1	3/11/2016 5:31:38 PM	24075
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000072	0.000053	0.00020	J	mg/L	1	3/4/2016 8:03:51 AM	24081

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: WEST LDU
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 4:50:00 PM
Lab ID: 1603154-003
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: **DJF**	
Benzene	260	1.9	20		µg/L	20	3/8/2016 6:39:45 PM	A32660
Toluene	53	1.8	20		µg/L	20	3/8/2016 6:39:45 PM	A32660
Ethylbenzene	27	2.2	20		µg/L	20	3/8/2016 6:39:45 PM	A32660
Methyl tert-butyl ether (MTBE)	ND	4.2	20		µg/L	20	3/8/2016 6:39:45 PM	A32660
1,2,4-Trimethylbenzene	6.8	2.1	20	J	µg/L	20	3/8/2016 6:39:45 PM	A32660
1,3,5-Trimethylbenzene	ND	2.3	20		µg/L	20	3/8/2016 6:39:45 PM	A32660
Xylenes, Total	47	6.5	30		µg/L	20	3/8/2016 6:39:45 PM	A32660
Surr: 1,2-Dichloroethane-d4	95.7	0	70-130		%Rec	20	3/8/2016 6:39:45 PM	A32660
Surr: 4-Bromofluorobenzene	110	0	70-130		%Rec	20	3/8/2016 6:39:45 PM	A32660
Surr: Dibromofluoromethane	95.5	0	70-130		%Rec	20	3/8/2016 6:39:45 PM	A32660
Surr: Toluene-d8	98.8	0	70-130		%Rec	20	3/8/2016 6:39:45 PM	A32660

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1603154-004
Matrix: TRIP BLANK
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Toluene	ND	0.089	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Naphthalene	ND	0.083	2.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Acetone	ND	0.88	10		µg/L	1	3/8/2016 8:04:36 PM	R32660
Bromobenzene	ND	0.080	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Bromoform	ND	0.10	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Bromomethane	ND	0.78	3.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
2-Butanone	ND	0.32	10		µg/L	1	3/8/2016 8:04:36 PM	R32660
Carbon disulfide	ND	0.60	10		µg/L	1	3/8/2016 8:04:36 PM	R32660
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Chloroethane	ND	0.15	2.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Chloroform	ND	0.089	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Chloromethane	ND	0.21	3.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Dibromomethane	ND	0.12	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/8/2016 8:04:36 PM	R32660

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1603154-004
Matrix: TRIP BLANK
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
2-Hexanone	ND	0.36	10		µg/L	1	3/8/2016 8:04:36 PM	R32660
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/8/2016 8:04:36 PM	R32660
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Styrene	ND	0.095	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/8/2016 8:04:36 PM	R32660
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/8/2016 8:04:36 PM	R32660
Surr: 1,2-Dichloroethane-d4	94.9	0	70-130		%Rec	1	3/8/2016 8:04:36 PM	R32660
Surr: 4-Bromofluorobenzene	110	0	70-130		%Rec	1	3/8/2016 8:04:36 PM	R32660
Surr: Dibromofluoromethane	94.7	0	70-130		%Rec	1	3/8/2016 8:04:36 PM	R32660
Surr: Toluene-d8	101	0	70-130		%Rec	1	3/8/2016 8:04:36 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	160308009
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1603154
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	160308009-001	**Sampling Date**	3/1/2016	**Date/Time Received**	3/8/2016	10:35 AM	
Client Sample ID	1603154-001G / OAPIS-1	**Sampling Time**	2:25 PM				
Matrix	Water	**Sample Location**					
Comments							

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0867	mg/L	0.01	3/9/2016	MER	EPA 335.4	

Authorized Signature

John Coddington, Lab Manager

MCL	EPA's Maximum Contaminant Level
ND	Not Detected
PQL	Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 160308009
Project Name: 1603154

Analytical Results Report

Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.540	mg/L	0.5	108.0	90-110	3/9/2016	3/9/2016

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
160308005-001	Cyanide	ND	0.541	mg/L	0.5	108.2	90-110	3/9/2016	3/9/2016

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	0.542	mg/L	0.5	108.4	0.2	0-20	3/9/2016	3/9/2016

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/L	0.01	3/9/2016	3/9/2016

AR Acceptable Range
ND Not Detected
PQL Practical Quantitation Limit
RPD Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

Friday, March 11, 2016

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB-C**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C32754**	RunNo: **32754**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1002498** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	ND	0.0060								
Manganese	ND	0.0020								

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C32754**	RunNo: **32754**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1002499** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.50	0.0060	0.5000	0	99.2	85	115			
Manganese	0.49	0.0020	0.5000	0	97.7	85	115			

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C32754**	RunNo: **32754**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1002500** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.0058	0.0060	0.006000	0	97.3	50	150			J
Manganese	0.0018	0.0020	0.002000	0	92.5	50	150			J

Sample ID **1603154-003CMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **WEST LDU**	Batch ID: **C32754**	RunNo: **32754**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1002632** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	3.9	0.030	2.500	1.432	99.9	70	130			
Manganese	3.4	0.010	2.500	0.9891	98.3	70	130			

Sample ID **1603154-003CMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **WEST LDU**	Batch ID: **C32754**	RunNo: **32754**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1002636** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	3.8	0.030	2.500	1.432	96.6	70	130	2.10	20	
Manganese	3.4	0.010	2.500	0.9891	95.2	70	130	2.25	20	

Sample ID **MB-C**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006189** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB-C**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006189** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006190** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.5	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	98.7	85	115			
Copper	0.48	0.0060	0.5000	0	96.9	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	98.1	85	115			
Potassium	49	1.0	50.00	0	97.4	85	115			
Zinc	0.50	0.010	0.5000	0	99.8	85	115			

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006191** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0024	0.0020	0.002000	0	119	50	150			
Cadmium	0.0018	0.0020	0.002000	0	91.0	50	150			J
Chromium	0.0054	0.0060	0.006000	0	89.7	50	150			J
Copper	0.0042	0.0060	0.006000	0	69.8	50	150			J
Iron	0.019	0.020	0.02000	0	96.2	50	150			J
Magnesium	0.52	1.0	0.5000	0	104	50	150			J
Manganese	0.0021	0.0020	0.002000	0	104	50	150			
Potassium	0.55	1.0	0.5000	0	110	50	150			J
Zinc	0.0057	0.010	0.005000	0	115	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**1603154-002CMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**EAST LDU**	Batch ID:	**C32831**		RunNo:	**32831**				
Prep Date:		Analysis Date:	**3/16/2016**		SeqNo:	**1006481**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.59	0.0020	0.5000	0.1190	94.4	70	130			
Cadmium	0.49	0.0020	0.5000	0	98.2	70	130			
Chromium	0.88	0.0060	0.5000	0.4057	95.5	70	130			
Copper	0.50	0.0060	0.5000	0	99.5	70	130			
Iron	0.56	0.020	0.5000	0.09893	92.8	70	130			
Zinc	0.48	0.010	0.5000	0.01739	91.6	70	130			

Sample ID	**1603154-002CMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**EAST LDU**	Batch ID:	**C32831**		RunNo:	**32831**				
Prep Date:		Analysis Date:	**3/16/2016**		SeqNo:	**1006482**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.60	0.0020	0.5000	0.1190	96.9	70	130	2.10	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	3.51	20	
Chromium	0.90	0.0060	0.5000	0.4057	98.3	70	130	1.58	20	
Copper	0.50	0.0060	0.5000	0	101	70	130	1.27	20	
Iron	0.58	0.020	0.5000	0.09893	96.9	70	130	3.65	20	
Zinc	0.49	0.010	0.5000	0.01739	95.5	70	130	3.96	20	

Sample ID	**1603154-003CMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**WEST LDU**	Batch ID:	**C32831**		RunNo:	**32831**				
Prep Date:		Analysis Date:	**3/16/2016**		SeqNo:	**1006485**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.77	0.0020	0.5000	0.2898	97.0	70	130			
Cadmium	0.51	0.0020	0.5000	0	102	70	130			
Copper	0.49	0.0060	0.5000	0	98.8	70	130			
Iron	0.61	0.020	0.5000	0.1273	96.7	70	130			
Zinc	0.51	0.010	0.5000	0.007340	99.7	70	130			

Sample ID	**1603154-003CMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**WEST LDU**	Batch ID:	**C32831**		RunNo:	**32831**				
Prep Date:		Analysis Date:	**3/16/2016**		SeqNo:	**1006489**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.76	0.0020	0.5000	0.2898	94.1	70	130	1.92	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	0	20	
Copper	0.50	0.0060	0.5000	0	99.2	70	130	0.406	20	
Iron	0.61	0.020	0.5000	0.1273	95.8	70	130	0.736	20	
Zinc	0.48	0.010	0.5000	0.007340	95.1	70	130	4.73	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-B**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**B32891**	RunNo:	**32891**					
Prep Date:		Analysis Date:	**3/18/2016**	SeqNo:	**1008295**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Sodium	ND	1.0								

Sample ID	**LCS-B**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID:	**B32891**	RunNo:	**32891**					
Prep Date:		Analysis Date:	**3/18/2016**	SeqNo:	**1008299**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	50	1.0	50.00	0	101	85	115			
Iron	0.49	0.020	0.5000	0	98.7	85	115			
Manganese	0.49	0.0020	0.5000	0	98.0	85	115			
Sodium	50	1.0	50.00	0	99.0	85	115			

Sample ID	**LLLCS-B**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**B32891**	RunNo:	**32891**					
Prep Date:		Analysis Date:	**3/18/2016**	SeqNo:	**1008300**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.52	1.0	0.5000	0	104	50	150			J
Iron	0.023	0.020	0.02000	0	114	50	150			
Manganese	0.0021	0.0020	0.002000	0	104	50	150			
Silver	0.0042	0.0050	0.005000	0	83.8	50	150			J
Sodium	0.54	1.0	0.5000	0	108	50	150			J

Sample ID	**LCS-B**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID:	**B32891**	RunNo:	**32891**					
Prep Date:		Analysis Date:	**3/18/2016**	SeqNo:	**1008304**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.099	0.0050	0.1000	0	98.9	85	115			

Sample ID	**MB-A**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**A33103**	RunNo:	**33103**					
Prep Date:		Analysis Date:	**3/28/2016**	SeqNo:	**1015961**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**LCS-A**	SampType: **LCS**			TestCode: **EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID: **A33103**			RunNo: **33103**					
Prep Date:		Analysis Date: **3/28/2016**			SeqNo: **1015962**		Units: **mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver		0.098	0.0050	0.1000	0	98.0	85	115			

Sample ID	**LLLCS-A**	SampType: **LCSLL**			TestCode: **EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID: **A33103**			RunNo: **33103**					
Prep Date:		Analysis Date: **3/28/2016**			SeqNo: **1015963**		Units: **mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver		0.0048	0.0050	0.005000	0	95.2	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-24075**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**24075**	RunNo:	**32607**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/7/2016**	SeqNo:	**997674**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID	**LCS-24075**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID:	**24075**	RunNo:	**32607**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/7/2016**	SeqNo:	**997675**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	99.0	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.49	0.0060	0.5000	0	98.0	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Manganese	0.48	0.0020	0.5000	0	96.6	85	115			
Zinc	0.50	0.010	0.5000	0	101	85	115			

Sample ID	**LLLCS-24075**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID:	**24075**	RunNo:	**32607**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/7/2016**	SeqNo:	**997676**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0017	0.0020	0.002000	0	84.0	50	150			J
Cadmium	0.0019	0.0020	0.002000	0	96.5	50	150			J
Chromium	0.0065	0.0060	0.006000	0	108	50	150			
Copper	0.0059	0.0060	0.006000	0	98.0	50	150			J
Iron	0.020	0.020	0.02000	0	101	50	150			
Manganese	0.0022	0.0020	0.002000	0	111	50	150			
Zinc	0.0057	0.010	0.005000	0	115	50	150			J

Sample ID	**MB-24115**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**24115**	RunNo:	**32673**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**999895**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-24115**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**24115**	RunNo:	**32673**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**999895**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								

Sample ID	**LCS-24115**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID:	**24115**	RunNo:	**32673**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**999896**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.49	0.0060	0.5000	0	98.6	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Manganese	0.49	0.0020	0.5000	0	98.6	85	115			

Sample ID	**LLLCS-24115**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID:	**24115**	RunNo:	**32673**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**999897**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0024	0.0020	0.002000	0	120	50	150			
Cadmium	0.0018	0.0020	0.002000	0	91.5	50	150			J
Chromium	0.0063	0.0060	0.006000	0	106	50	150			
Copper	0.0052	0.0060	0.006000	0	86.8	50	150			J
Iron	0.024	0.020	0.02000	0	119	50	150			
Manganese	0.0023	0.0020	0.002000	0	114	50	150			

Sample ID	**MB-24115**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**24115**	RunNo:	**32754**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/11/2016**	SeqNo:	**1002483**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**LCS-24115**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**LCSW**	Batch ID:	**24115**		RunNo:	**32754**				
Prep Date:	**3/7/2016**	Analysis Date:	**3/11/2016**		SeqNo:	**1002484**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.50	0.010	0.5000	0	100	85	115			

Sample ID	**LLLCS-24115**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**BatchQC**	Batch ID:	**24115**		RunNo:	**32754**				
Prep Date:	**3/7/2016**	Analysis Date:	**3/11/2016**		SeqNo:	**1002485**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.0059	0.010	0.005000	0	118	50	150			J

Sample ID	**MB-24413**	SampType:	**MBLK**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**PBW**	Batch ID:	**24413**		RunNo:	**33054**				
Prep Date:	**3/24/2016**	Analysis Date:	**3/25/2016**		SeqNo:	**1014136**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID	**LCS-24413**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**LCSW**	Batch ID:	**24413**		RunNo:	**33054**				
Prep Date:	**3/24/2016**	Analysis Date:	**3/25/2016**		SeqNo:	**1014137**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.099	0.0050	0.1000	0	99.2	85	115			

Sample ID	**LLLCS-24413**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**BatchQC**	Batch ID:	**24413**		RunNo:	**33054**				
Prep Date:	**3/24/2016**	Analysis Date:	**3/25/2016**		SeqNo:	**1014138**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.0053	0.0050	0.005000	0	106	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33051**	RunNo: **33051**
Prep Date:	Analysis Date: **3/24/2016**	SeqNo: **1014293** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.5	85	115			
Selenium	0.024	0.0010	0.02500	0	96.4	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33051**	RunNo: **33051**
Prep Date:	Analysis Date: **3/24/2016**	SeqNo: **1014294** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	100	50	150			
Selenium	0.00099	0.0010	0.001000	0	98.8	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33051**	RunNo: **33051**
Prep Date:	Analysis Date: **3/24/2016**	SeqNo: **1014295** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33098**	RunNo: **33098**
Prep Date:	Analysis Date: **3/25/2016**	SeqNo: **1015701** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	93.2	85	115			
Lead	0.012	0.00050	0.01250	0	93.0	85	115			
Selenium	0.023	0.0010	0.02500	0	92.7	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33098**	RunNo: **33098**
Prep Date:	Analysis Date: **3/25/2016**	SeqNo: **1015702** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	101	50	150			
Lead	0.00049	0.00050	0.0005000	0	97.2	50	150			J
Selenium	0.00095	0.0010	0.001000	0	94.5	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33098**	RunNo: **33098**
Prep Date:	Analysis Date: **3/25/2016**	SeqNo: **1015703** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33120**	RunNo: **33120**
Prep Date:	Analysis Date: **3/28/2016**	SeqNo: **1016767** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.012	0.00050	0.01250	0	95.6	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33120**	RunNo: **33120**
Prep Date:	Analysis Date: **3/28/2016**	SeqNo: **1016769** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.00049	0.00050	0.0005000	0	98.4	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33120**	RunNo: **33120**
Prep Date:	Analysis Date: **3/28/2016**	SeqNo: **1016771** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.000011	0.00050								J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-24075**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**24075**	RunNo:	**32687**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000380**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MB-24115**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**24115**	RunNo:	**32687**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000381**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-24075**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**24075**	RunNo:	**32687**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000383**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.1	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.025	0.0010	0.02500	0	98.0	85	115			
Uranium	0.012	0.00050	0.01250	0	98.8	85	115			

Sample ID	**MSLCS-24115**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**24115**	RunNo:	**32687**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000384**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.7	85	115			
Lead	0.013	0.00050	0.01250	0	102	85	115			
Selenium	0.024	0.0010	0.02500	0	97.7	85	115			
Uranium	0.013	0.00050	0.01250	0	100	85	115			

Sample ID	**MSLLLCS-24075**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**24075**	RunNo:	**32687**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000386**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MSLLLCS-24075**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**24075**	RunNo:	**32687**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000386**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00087	0.0010	0.001000	0	86.9	50	150			J
Lead	0.00046	0.00050	0.0005000	0	91.5	50	150			J
Selenium	0.00081	0.0010	0.001000	0	81.0	50	150			J
Uranium	0.00044	0.00050	0.0005000	0	87.4	50	150			J

Sample ID	**MSLLLCS-24115**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**24115**	RunNo:	**32687**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000387**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00083	0.0010	0.001000	0	83.0	50	150			J
Lead	0.00038	0.00050	0.0005000	0	76.7	50	150			J
Selenium	0.00078	0.0010	0.001000	0	78.3	50	150			J
Uranium	0.00042	0.00050	0.0005000	0	83.3	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-24081**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**24081**	RunNo:	**32562**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/4/2016**	SeqNo:	**996234**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-24081**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**24081**	RunNo:	**32562**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/4/2016**	SeqNo:	**996235**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	107	80	120			

Sample ID	**MB-24112**	SampType:	**mblk**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**24112**	RunNo:	**32641**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/8/2016**	SeqNo:	**998822**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-24112**	SampType:	**lcs**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**24112**	RunNo:	**32641**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/8/2016**	SeqNo:	**998823**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	106	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R32618**	RunNo: **32618**							
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997926**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R32618**	RunNo: **32618**							
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997927**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	101	90	110			
Bromide	2.4	0.10	2.500	0	96.2	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.5	90	110			
Sulfate	9.7	0.50	10.00	0	97.3	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **A32799**	RunNo: **32799**							
Prep Date:	Analysis Date: **3/14/2016**	SeqNo: **1004878**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **A32799**	RunNo: **32799**							
Prep Date:	Analysis Date: **3/14/2016**	SeqNo: **1004879**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	95.9	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R33179**	RunNo: **33179**							
Prep Date:	Analysis Date: **3/29/2016**	SeqNo: **1018830**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**
14-Apr-16

Client: Western Refining Southwest, Gallup
Project: Quarterly GW Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R33179**	RunNo: **33179**							
Prep Date:	Analysis Date: **3/29/2016**	SeqNo: **1018831**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.6	0.20	3.500	0	102	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS-24101**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **24101**	RunNo: **32603**
Prep Date: **3/7/2016**	Analysis Date: **3/7/2016**	SeqNo: **997914** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.9	1.0	5.000	0	118	71.3	139			
Surr: DNOP	0.50		0.5000		99.7	70	141			

Sample ID **MB-24101**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **24101**	RunNo: **32603**
Prep Date: **3/7/2016**	Analysis Date: **3/7/2016**	SeqNo: **997915** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.91		1.000		90.8	70	141			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBW**	Batch ID:	**A32596**	RunNo:	**32596**					
Prep Date:		Analysis Date:	**3/4/2016**	SeqNo:	**997207**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		95.0	49.5	130			

Sample ID	**2.5UG GRO LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSW**	Batch ID:	**A32596**	RunNo:	**32596**					
Prep Date:		Analysis Date:	**3/4/2016**	SeqNo:	**997208**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	103	80	120			
Surr: BFB	21		20.00		106	49.5	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **A32660**	RunNo: **32660**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999316** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		109	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.2	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **A32660**	RunNo: **32660**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999317** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	70	130			
Toluene	22	1.0	20.00	0	111	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.6	70	130			
Surr: Toluene-d8	10		10.00		99.7	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32660**	RunNo: **32660**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999254** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32660**	RunNo: **32660**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999254** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	0.19	3.0								J
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		109	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.2	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32660**	RunNo: **32660**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999255** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	70	130			
Toluene	22	1.0	20.00	0	111	70	130			
Chlorobenzene	22	1.0	20.00	0	109	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32660**	RunNo: **32660**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999255** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21	1.0	20.00	0	105	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	98.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.6	70	130			
Surr: Toluene-d8	10		10.00		99.7	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **mb-24121**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003941** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **mb-24121**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003941** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	250		200.0		123	4.63	113			S
Surr: Phenol-d5	260		200.0		131	4.13	124			S
Surr: 2,4,6-Tribromophenol	230		200.0		116	5.14	132			
Surr: Nitrobenzene-d5	130		100.0		128	9.13	140			
Surr: 2-Fluorobiphenyl	120		100.0		118	10.8	132			
Surr: 4-Terphenyl-d14	130		100.0		131	12.9	107			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603154**

14-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **lcs-24121**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003943** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	100	10	100.0	0	104	40.2	107			
4-Chloro-3-methylphenol	250	10	200.0	0	125	48.2	107			S
2-Chlorophenol	220	10	200.0	0	110	42.5	106			S
1,4-Dichlorobenzene	110	10	100.0	0	109	31.6	111			
2,4-Dinitrotoluene	78	10	100.0	0	78.1	33.6	86.5			
N-Nitrosodi-n-propylamine	110	10	100.0	0	108	44	106			S
4-Nitrophenol	180	10	200.0	0	88.4	25.5	109			
Pentachlorophenol	170	20	200.0	0	84.6	38.8	97.8			
Phenol	210	10	200.0	0	107	22.7	116			
Pyrene	100	10	100.0	0	103	29.3	138			
1,2,4-Trichlorobenzene	110	10	100.0	0	115	35.3	123			
Surr: 2-Fluorophenol	180		200.0		88.4	4.63	113			
Surr: Phenol-d5	200		200.0		101	4.13	124			
Surr: 2,4,6-Tribromophenol	230		200.0		113	5.14	132			
Surr: Nitrobenzene-d5	96		100.0		96.0	9.13	140			
Surr: 2-Fluorobiphenyl	90		100.0		90.5	10.8	132			
Surr: 4-Terphenyl-d14	99		100.0		99.4	12.9	107			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1603154 RcptNo: 1

Received by/date: 03/02/16

Logged By: Ashley Gallegos 3/2/2016 4:16:00 PM

Completed By: Ashley Gallegos 3/3/2016 9:44:48 AM

Reviewed By: 03/03/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑ AJS	No ☑	
9. Was preservative added to bottles?	Yes ☑	No ☑ AJS	NA ☐ See remarks
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 8 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? Yes
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: AJS 3/3/16

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: ____ Date: ____

By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: ____

Client Instructions: ____

17. Additional remarks: For metals analysis: added 1 mL HNO_3 to 001F
added 0.4 mL HNO_3 to 002C
For acceptable pH
AJ 3/03/16 1345

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations / Anions	WQCC (Total & Dissolved) Metals		Cyanide	Air Bubbles (Y or N)
3/1/16	1425	WATER	OAPIS-1	40 mL VOA-6	HCL	1603158-001			✓							✓						
				1 LITER AMBER-2	NEAT												✓					
				250 mL AMBER-1	NEAT				✓													
				125 mL PLASTIC-1	H_2SO_4													✓				
				125 mL PLASTIC-1	HNO_3													✓	✓			
				500 mL PLASTIC-1	HNO_3														✓			
				500 mL PLASTIC-1	NEAT														✓			
				500 mL PLASTIC-1	NAOH																✓	
3/1/16	1630	WATER	EAST LDU	40 mL VOA-6	HCL	1603158-002	✓		✓													
				250 mL AMBER-1	NEAT				✓													
				125 mL PLASTIC-1	HNO_3														✓			
				500 mL PLASTIC-1	HNO_3														✓			

Date: 3/2/16 Time: 0725 Relinquished by: [signature]
Received by: [signature] Date: 3/2/16 Time: 1315

Date: 3-2-16 Time: 1616 Relinquished by: [signature]
Received by: [signature] Date: 03/02/16 Time: 1616

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)
Accreditation: ☒ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	WQCC Metals (TOTAL & DISSOLVED)				Air Bubbles (Y or N)
3/1/16	1650	WATER	WEST LDU	40 ML VOA-6	HCL	1603154 -003	✓		✓													
↓	↓	↓	↓	250 ML AMBER-1	NEAT				✓													
				125 ML PLASTIC-1	HNO_3													✓				
				500 ML PLASTIC-1	HNO_3													✓				
—	—	WATER	TRIP BLANK	40 ML VOA-4	HCL	-004										✓						

Date	Time	Relinquished by:	Received by:	Date	Time
3/2/16	0725			3/2/16	1315
3/2/16	1616			03/03/16	1616

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

April 05, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: Quarterly GW Sampling OrderNo.: 1603229

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 3/3/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: Quarterly GW Sampling
Collection Date: 3/3/2016 9:40:00 AM
Lab ID: 1603229-001
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/7/2016 4:32:23 PM	24101
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/7/2016 4:32:23 PM	24101
Surr: DNOP	101	0	70-141		%Rec	1	3/7/2016 4:32:23 PM	24101
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.063	0.025	0.050		mg/L	1	3/4/2016 6:06:53 PM	A32596
Surr: BFB	95.0	0	49.5-130		%Rec	1	3/4/2016 6:06:53 PM	A32596
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	0.96	0.023	0.10		mg/L	1	3/4/2016 12:46:56 PM	R32618
Chloride	110	0.55	10		mg/L	20	3/4/2016 12:59:20 PM	R32618
Nitrogen, Nitrite (As N)	ND	0.042	0.10		mg/L	1	3/4/2016 12:46:56 PM	R32618
Bromide	0.92	0.032	0.10		mg/L	1	3/4/2016 12:46:56 PM	R32618
Nitrogen, Nitrate (As N)	0.71	0.042	0.10		mg/L	1	3/4/2016 12:46:56 PM	R32618
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50		mg/L	1	3/4/2016 12:46:56 PM	R32618
Sulfate	34	0.064	0.50		mg/L	1	3/4/2016 12:46:56 PM	R32618
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Calcium	67	0.26	1.0		mg/L	1	3/18/2016 4:48:44 PM	C32891
Magnesium	12	0.013	1.0		mg/L	1	3/18/2016 4:48:44 PM	C32891
Potassium	0.73	0.18	1.0	J	mg/L	1	3/18/2016 4:48:44 PM	C32891
Sodium	270	0.48	5.0		mg/L	5	3/23/2016 4:41:40 PM	C33001
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	5.4	0.096	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Toluene	ND	0.089	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Ethylbenzene	2.7	0.11	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Methyl tert-butyl ether (MTBE)	15	0.21	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Naphthalene	0.77	0.083	2.0	J	µg/L	1	3/8/2016 8:32:44 PM	R32660
1-Methylnaphthalene	0.33	0.20	4.0	J	µg/L	1	3/8/2016 8:32:44 PM	R32660
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Acetone	ND	0.88	10		µg/L	1	3/8/2016 8:32:44 PM	R32660
Bromobenzene	ND	0.080	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Bromoform	ND	0.10	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Bromomethane	ND	0.78	3.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
2-Butanone	ND	0.32	10		µg/L	1	3/8/2016 8:32:44 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: Quarterly GW Sampling
Collection Date: 3/3/2016 9:40:00 AM
Lab ID: 1603229-001 **Matrix:** AQUEOUS **Received Date:** 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Carbon disulfide	ND	0.60	10		µg/L	1	3/8/2016 8:32:44 PM	R32660
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Chloroethane	ND	0.15	2.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Chloroform	ND	0.089	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Chloromethane	ND	0.21	3.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Dibromomethane	ND	0.12	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
2-Hexanone	ND	0.36	10		µg/L	1	3/8/2016 8:32:44 PM	R32660
Isopropylbenzene	0.16	0.098	1.0	J	µg/L	1	3/8/2016 8:32:44 PM	R32660
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/8/2016 8:32:44 PM	R32660
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Styrene	ND	0.095	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
tert-Butylbenzene	0.11	0.096	1.0	J	µg/L	1	3/8/2016 8:32:44 PM	R32660
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: Quarterly GW Sampling
Collection Date: 3/3/2016 9:40:00 AM
Lab ID: 1603229-001
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/8/2016 8:32:44 PM	R32660
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/8/2016 8:32:44 PM	R32660
Surr: 1,2-Dichloroethane-d4	95.5	0	70-130		%Rec	1	3/8/2016 8:32:44 PM	R32660
Surr: 4-Bromofluorobenzene	111	0	70-130		%Rec	1	3/8/2016 8:32:44 PM	R32660
Surr: Dibromofluoromethane	96.8	0	70-130		%Rec	1	3/8/2016 8:32:44 PM	R32660
Surr: Toluene-d8	99.1	0	70-130		%Rec	1	3/8/2016 8:32:44 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: Quarterly GW Sampling
Collection Date: 3/3/2016 11:40:00 AM
Lab ID: 1603229-002
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/7/2016 4:54:13 PM	24101
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/7/2016 4:54:13 PM	24101
Surr: DNOP	102	0	70-141		%Rec	1	3/7/2016 4:54:13 PM	24101
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.046	0.025	0.050	J	mg/L	1	3/4/2016 6:31:15 PM	A32596
Surr: BFB	93.9	0	49.5-130		%Rec	1	3/4/2016 6:31:15 PM	A32596
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	0.20	0.023	0.10		mg/L	1	3/4/2016 1:36:35 PM	R32618
Chloride	1100	2.7	50		mg/L	100	3/15/2016 10:00:20 PM	R32822
Nitrogen, Nitrite (As N)	ND	0.83	2.0		mg/L	20	3/4/2016 2:13:49 PM	R32618
Bromide	1.3	0.032	0.10		mg/L	1	3/4/2016 1:36:35 PM	R32618
Nitrogen, Nitrate (As N)	0.40	0.042	0.10		mg/L	1	3/4/2016 1:36:35 PM	R32618
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50		mg/L	1	3/4/2016 1:36:35 PM	R32618
Sulfate	200	1.3	10		mg/L	20	3/4/2016 2:13:49 PM	R32618
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.067	0.0013	0.0020		mg/L	1	3/18/2016 4:52:34 PM	C32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 4:52:34 PM	C32891
Calcium	110	1.3	5.0		mg/L	5	3/18/2016 5:02:20 PM	C32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/18/2016 4:52:34 PM	C32891
Copper	ND	0.0040	0.0060		mg/L	1	3/18/2016 4:52:34 PM	C32891
Iron	ND	0.0091	0.020		mg/L	1	3/18/2016 4:52:34 PM	C32891
Magnesium	22	0.013	1.0		mg/L	1	3/18/2016 4:52:34 PM	C32891
Manganese	0.12	0.00032	0.0020	*	mg/L	1	3/18/2016 4:52:34 PM	C32891
Potassium	2.2	0.18	1.0		mg/L	1	3/18/2016 4:52:34 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 4:52:34 PM	C32891
Sodium	840	0.96	10		mg/L	10	3/23/2016 4:43:33 PM	C33001
Zinc	0.014	0.0028	0.010		mg/L	1	3/18/2016 4:52:34 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.068	0.0011	0.0020		mg/L	1	3/18/2016 3:53:00 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 3:53:00 PM	24150
Chromium	ND	0.0022	0.0060		mg/L	1	3/18/2016 3:53:00 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 3:53:00 PM	24150
Iron	ND	0.0072	0.020		mg/L	1	3/18/2016 3:53:00 PM	24150
Manganese	0.11	0.0015	0.0020	*	mg/L	1	3/18/2016 3:53:00 PM	24150
Silver	0.0038	0.0021	0.0050	J	mg/L	1	3/18/2016 3:53:00 PM	24150
Zinc	ND	0.0039	0.010		mg/L	1	3/18/2016 3:53:00 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: Quarterly GW Sampling
Collection Date: 3/3/2016 11:40:00 AM
Lab ID: 1603229-002
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0018	0.00032	0.0050	J	mg/L	5	3/25/2016 5:56:24 PM	B33098
Lead	0.00020	0.00013	0.0025	J	mg/L	5	3/25/2016 5:56:24 PM	B33098
Selenium	0.013	0.0039	0.020	J	mg/L	20	3/25/2016 5:59:27 PM	B33098
Uranium	0.057	0.000024	0.0025	*	mg/L	5	3/28/2016 7:08:29 PM	B33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0015	0.0015	0.0050	J	mg/L	5	3/17/2016 5:36:14 PM	24248
Lead	0.00026	0.00024	0.0025	J	mg/L	5	3/17/2016 5:36:14 PM	24248
Selenium	0.013	0.0025	0.020	J	mg/L	20	3/23/2016 3:52:26 PM	24248
Uranium	0.060	0.000025	0.0025	*	mg/L	5	3/17/2016 5:36:14 PM	24248
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/8/2016 11:32:33 AM	24112
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Toluene	ND	0.089	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Methyl tert-butyl ether (MTBE)	39	0.21	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
1,2-Dichloroethane (EDC)	0.55	0.053	1.0	J	µg/L	1	3/8/2016 9:01:03 PM	R32660
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Naphthalene	ND	0.083	2.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Acetone	ND	0.88	10		µg/L	1	3/8/2016 9:01:03 PM	R32660
Bromobenzene	ND	0.080	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Bromoform	ND	0.10	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Bromomethane	ND	0.78	3.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
2-Butanone	ND	0.32	10		µg/L	1	3/8/2016 9:01:03 PM	R32660
Carbon disulfide	ND	0.60	10		µg/L	1	3/8/2016 9:01:03 PM	R32660
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Chloroethane	ND	0.15	2.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Chloroform	ND	0.089	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Chloromethane	ND	0.21	3.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
cis-1,2-DCE	0.26	0.12	1.0	J	µg/L	1	3/8/2016 9:01:03 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: Quarterly GW Sampling
Collection Date: 3/3/2016 11:40:00 AM
Lab ID: 1603229-002 **Matrix:** AQUEOUS **Received Date:** 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Dibromomethane	ND	0.12	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
1,1-Dichloroethane	0.96	0.11	1.0	J	µg/L	1	3/8/2016 9:01:03 PM	R32660
1,1-Dichloroethene	0.91	0.076	1.0	J	µg/L	1	3/8/2016 9:01:03 PM	R32660
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
2-Hexanone	ND	0.36	10		µg/L	1	3/8/2016 9:01:03 PM	R32660
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/8/2016 9:01:03 PM	R32660
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Styrene	ND	0.095	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/8/2016 9:01:03 PM	R32660
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/8/2016 9:01:03 PM	R32660

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: Quarterly GW Sampling
Collection Date: 3/3/2016 11:40:00 AM
Lab ID: 1603229-002
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 1,2-Dichloroethane-d4	97.9	0	70-130		%Rec	1	3/8/2016 9:01:03 PM	R32660
Surr: 4-Bromofluorobenzene	107	0	70-130		%Rec	1	3/8/2016 9:01:03 PM	R32660
Surr: Dibromofluoromethane	103	0	70-130		%Rec	1	3/8/2016 9:01:03 PM	R32660
Surr: Toluene-d8	101	0	70-130		%Rec	1	3/8/2016 9:01:03 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-1
Project: Quarterly GW Sampling
Collection Date: 3/3/2016 2:05:00 PM
Lab ID: 1603229-003
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/7/2016 5:15:53 PM	24101
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/7/2016 5:15:53 PM	24101
Surr: DNOP	102	0	70-141		%Rec	1	3/7/2016 5:15:53 PM	24101
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	3/4/2016 8:33:27 PM	A32596
Surr: BFB	89.7	0	49.5-130		%Rec	1	3/4/2016 8:33:27 PM	A32596
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	0.27	0.023	0.10		mg/L	1	3/4/2016 2:26:14 PM	R32618
Chloride	70	0.55	10		mg/L	20	3/4/2016 2:38:38 PM	R32618
Nitrogen, Nitrite (As N)	ND	0.042	0.10		mg/L	1	3/4/2016 2:26:14 PM	R32618
Bromide	0.42	0.032	0.10		mg/L	1	3/4/2016 2:26:14 PM	R32618
Nitrogen, Nitrate (As N)	0.25	0.042	0.10		mg/L	1	3/4/2016 2:26:14 PM	R32618
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50		mg/L	1	3/4/2016 2:26:14 PM	R32618
Sulfate	160	1.3	10		mg/L	20	3/4/2016 2:38:38 PM	R32618
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.031	0.0013	0.0020		mg/L	1	3/18/2016 5:04:06 PM	C32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 5:04:06 PM	C32891
Calcium	2.0	0.26	1.0		mg/L	1	3/18/2016 5:04:06 PM	C32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/18/2016 5:04:06 PM	C32891
Copper	ND	0.0040	0.0060		mg/L	1	3/23/2016 4:45:29 PM	C33001
Iron	0.026	0.0091	0.020		mg/L	1	3/18/2016 5:04:06 PM	C32891
Magnesium	0.26	0.013	1.0	J	mg/L	1	3/18/2016 5:04:06 PM	C32891
Manganese	0.0074	0.00032	0.0020		mg/L	1	3/18/2016 5:04:06 PM	C32891
Potassium	0.91	0.18	1.0	J	mg/L	1	3/18/2016 5:04:06 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 5:04:06 PM	C32891
Sodium	330	0.48	5.0		mg/L	5	3/18/2016 5:06:06 PM	C32891
Zinc	0.062	0.0028	0.010		mg/L	1	3/18/2016 5:04:06 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.044	0.0011	0.0020		mg/L	1	3/18/2016 3:55:01 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 3:55:01 PM	24150
Chromium	0.0055	0.0022	0.0060	J	mg/L	1	3/18/2016 3:55:01 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 3:55:01 PM	24150
Iron	0.71	0.0072	0.020	*	mg/L	1	3/18/2016 3:55:01 PM	24150
Manganese	0.034	0.0015	0.0020		mg/L	1	3/18/2016 3:55:01 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/18/2016 3:55:01 PM	24150
Zinc	0.021	0.0039	0.010		mg/L	1	3/18/2016 3:55:01 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-1
Project: Quarterly GW Sampling
Collection Date: 3/3/2016 2:05:00 PM
Lab ID: 1603229-003
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0012	0.00032	0.0050	J	mg/L	5	3/28/2016 7:11:33 PM	B33120
Lead	0.00015	0.000026	0.00050	J	mg/L	1	3/24/2016 6:18:24 PM	B33051
Selenium	0.0038	0.00019	0.0010		mg/L	1	3/24/2016 6:18:24 PM	B33051
Uranium	0.039	0.000024	0.0025	*	mg/L	5	3/28/2016 7:11:33 PM	B33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0016	0.0015	0.0050	J	mg/L	5	3/17/2016 5:39:14 PM	24248
Lead	0.0012	0.000047	0.00050		mg/L	1	3/17/2016 5:26:06 PM	24248
Selenium	0.0041	0.00062	0.0050	J	mg/L	5	3/17/2016 5:39:14 PM	24248
Uranium	0.042	0.000025	0.0025	*	mg/L	5	3/17/2016 5:39:14 PM	24248
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000057	0.000053	0.00020	J	mg/L	1	3/8/2016 11:34:33 AM	24112
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Toluene	ND	0.089	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Methyl tert-butyl ether (MTBE)	0.74	0.21	1.0	J	µg/L	1	3/8/2016 9:29:17 PM	R32660
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Naphthalene	ND	0.083	2.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Acetone	ND	0.88	10		µg/L	1	3/8/2016 9:29:17 PM	R32660
Bromobenzene	ND	0.080	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Bromoform	ND	0.10	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Bromomethane	ND	0.78	3.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
2-Butanone	ND	0.32	10		µg/L	1	3/8/2016 9:29:17 PM	R32660
Carbon disulfide	ND	0.60	10		µg/L	1	3/8/2016 9:29:17 PM	R32660
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Chloroethane	ND	0.15	2.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Chloroform	ND	0.089	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Chloromethane	ND	0.21	3.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-1
Project: Quarterly GW Sampling
Collection Date: 3/3/2016 2:05:00 PM
Lab ID: 1603229-003 **Matrix:** AQUEOUS **Received Date:** 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Dibromomethane	ND	0.12	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
2-Hexanone	ND	0.36	10		µg/L	1	3/8/2016 9:29:17 PM	R32660
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/8/2016 9:29:17 PM	R32660
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Styrene	ND	0.095	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/8/2016 9:29:17 PM	R32660
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/8/2016 9:29:17 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-1
Project: Quarterly GW Sampling
Collection Date: 3/3/2016 2:05:00 PM
Lab ID: 1603229-003
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 1,2-Dichloroethane-d4	90.7	0	70-130		%Rec	1	3/8/2016 9:29:17 PM	R32660
Surr: 4-Bromofluorobenzene	108	0	70-130		%Rec	1	3/8/2016 9:29:17 PM	R32660
Surr: Dibromofluoromethane	93.4	0	70-130		%Rec	1	3/8/2016 9:29:17 PM	R32660
Surr: Toluene-d8	99.7	0	70-130		%Rec	1	3/8/2016 9:29:17 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1603229-004
Matrix: TRIP BLANK
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	3/4/2016 8:57:46 PM	A32596
Surr: BFB	92.5	0	49.5-130		%Rec	1	3/4/2016 8:57:46 PM	A32596
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Toluene	ND	0.089	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Naphthalene	ND	0.083	2.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Acetone	ND	0.88	10		µg/L	1	3/8/2016 9:57:33 PM	R32660
Bromobenzene	ND	0.080	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Bromoform	ND	0.10	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Bromomethane	ND	0.78	3.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
2-Butanone	ND	0.32	10		µg/L	1	3/8/2016 9:57:33 PM	R32660
Carbon disulfide	ND	0.60	10		µg/L	1	3/8/2016 9:57:33 PM	R32660
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Chloroethane	ND	0.15	2.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Chloroform	ND	0.089	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Chloromethane	ND	0.21	3.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Dibromomethane	ND	0.12	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1603229-004
Matrix: TRIP BLANK
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
2-Hexanone	ND	0.36	10		µg/L	1	3/8/2016 9:57:33 PM	R32660
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/8/2016 9:57:33 PM	R32660
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Styrene	ND	0.095	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/8/2016 9:57:33 PM	R32660
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/8/2016 9:57:33 PM	R32660
Surr: 1,2-Dichloroethane-d4	95.1	0	70-130		%Rec	1	3/8/2016 9:57:33 PM	R32660
Surr: 4-Bromofluorobenzene	110	0	70-130		%Rec	1	3/8/2016 9:57:33 PM	R32660
Surr: Dibromofluoromethane	95.0	0	70-130		%Rec	1	3/8/2016 9:57:33 PM	R32660
Surr: Toluene-d8	101	0	70-130		%Rec	1	3/8/2016 9:57:33 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603229**

05-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB-C**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008301** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008302** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.1	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Calcium	50	1.0	50.00	0	99.6	85	115			
Chromium	0.49	0.0060	0.5000	0	97.0	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.49	0.020	0.5000	0	98.4	85	115			
Magnesium	51	1.0	50.00	0	102	85	115			
Manganese	0.49	0.0020	0.5000	0	97.8	85	115			
Potassium	50	1.0	50.00	0	99.4	85	115			
Sodium	51	1.0	50.00	0	101	85	115			
Zinc	0.48	0.010	0.5000	0	96.3	85	115			

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008303** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0021	0.0020	0.002000	0	103	50	150			
Cadmium	0.0020	0.0020	0.002000	0	99.5	50	150			J
Calcium	0.50	1.0	0.5000	0	99.4	50	150			J
Chromium	0.0053	0.0060	0.006000	0	87.8	50	150			J
Copper	0.0068	0.0060	0.006000	0	114	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603229**

05-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008303** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.021	0.020	0.02000	0	103	50	150			
Magnesium	0.51	1.0	0.5000	0	102	50	150			J
Manganese	0.0021	0.0020	0.002000	0	104	50	150			
Potassium	0.58	1.0	0.5000	0	115	50	150			J
Silver	0.0038	0.0050	0.005000	0	76.2	50	150			J
Sodium	0.55	1.0	0.5000	0	111	50	150			J
Zinc	0.0050	0.010	0.005000	0	100	50	150			J

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008305** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	101	85	115			

Sample ID **MB-C**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C33001**	RunNo: **33001**
Prep Date:	Analysis Date: **3/23/2016**	SeqNo: **1012812** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								
Sodium	ND	1.0								

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C33001**	RunNo: **33001**
Prep Date:	Analysis Date: **3/23/2016**	SeqNo: **1012813** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.48	0.0060	0.5000	0	95.4	85	115			
Sodium	50	1.0	50.00	0	99.6	85	115			

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C33001**	RunNo: **33001**
Prep Date:	Analysis Date: **3/23/2016**	SeqNo: **1012814** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0074	0.0060	0.006000	0	124	50	150			
Sodium	0.57	1.0	0.5000	0	115	50	150			J

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603229**

05-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-24150**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**24150**	RunNo:	**32831**					
Prep Date:	**3/9/2016**	Analysis Date:	**3/16/2016**	SeqNo:	**1006645**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	**LCS-24150**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID:	**24150**	RunNo:	**32831**					
Prep Date:	**3/9/2016**	Analysis Date:	**3/16/2016**	SeqNo:	**1006646**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.4	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	98.4	85	115			
Iron	0.49	0.020	0.5000	0	97.3	85	115			
Manganese	0.49	0.0020	0.5000	0	97.9	85	115			
Silver	0.094	0.0050	0.1000	0	93.7	85	115			
Zinc	0.50	0.010	0.5000	0	99.3	85	115			

Sample ID	**LLLCS-24150**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID:	**24150**	RunNo:	**32831**					
Prep Date:	**3/9/2016**	Analysis Date:	**3/16/2016**	SeqNo:	**1006647**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0016	0.0020	0.002000	0	80.5	50	150			J
Cadmium	0.0019	0.0020	0.002000	0	96.0	50	150			J
Chromium	0.0074	0.0060	0.006000	0	123	50	150			
Iron	0.022	0.020	0.02000	0	110	50	150			
Manganese	0.0019	0.0020	0.002000	0	93.0	50	150			J
Silver	0.0043	0.0050	0.005000	0	86.2	50	150			J
Zinc	0.0061	0.010	0.005000	0	122	50	150			J

Sample ID	**MB-24150**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**24150**	RunNo:	**32891**					
Prep Date:	**3/9/2016**	Analysis Date:	**3/18/2016**	SeqNo:	**1008286**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603229**

05-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**LCS-24150**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**LCSW**	Batch ID:	**24150**		RunNo:	**32891**				
Prep Date:	**3/9/2016**	Analysis Date:	**3/18/2016**		SeqNo:	**1008287**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.48	0.0060	0.5000	0	96.8	85	115			

Sample ID	**LLLCS-24150**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**BatchQC**	Batch ID:	**24150**		RunNo:	**32891**				
Prep Date:	**3/9/2016**	Analysis Date:	**3/18/2016**		SeqNo:	**1008288**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0058	0.0060	0.006000	0	97.3	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603229**

05-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33051**	RunNo: **33051**
Prep Date:	Analysis Date: **3/24/2016**	SeqNo: **1014293** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	94.4	85	115			
Selenium	0.024	0.0010	0.02500	0	96.4	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33051**	RunNo: **33051**
Prep Date:	Analysis Date: **3/24/2016**	SeqNo: **1014294** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00049	0.00050	0.0005000	0	98.3	50	150			J
Selenium	0.00099	0.0010	0.001000	0	98.8	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33051**	RunNo: **33051**
Prep Date:	Analysis Date: **3/24/2016**	SeqNo: **1014295** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Selenium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33098**	RunNo: **33098**
Prep Date:	Analysis Date: **3/25/2016**	SeqNo: **1015701** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	93.2	85	115			
Lead	0.012	0.00050	0.01250	0	93.0	85	115			
Selenium	0.023	0.0010	0.02500	0	92.7	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33098**	RunNo: **33098**
Prep Date:	Analysis Date: **3/25/2016**	SeqNo: **1015702** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	101	50	150			
Lead	0.00049	0.00050	0.0005000	0	97.2	50	150			J
Selenium	0.00095	0.0010	0.001000	0	94.5	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603229**

05-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33098**	RunNo: **33098**
Prep Date:	Analysis Date: **3/25/2016**	SeqNo: **1015703** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33120**	RunNo: **33120**
Prep Date:	Analysis Date: **3/28/2016**	SeqNo: **1016767** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.2	85	115			
Uranium	0.012	0.00050	0.01250	0	95.6	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33120**	RunNo: **33120**
Prep Date:	Analysis Date: **3/28/2016**	SeqNo: **1016769** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	104	50	150			
Uranium	0.00049	0.00050	0.0005000	0	98.4	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33120**	RunNo: **33120**
Prep Date:	Analysis Date: **3/28/2016**	SeqNo: **1016771** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Uranium	0.000011	0.00050								J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603229**

05-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-24248**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**24248**	RunNo:	**32847**					
Prep Date:	**3/15/2016**	Analysis Date:	**3/16/2016**	SeqNo:	**1006784**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	).0000054	0.00050								J

Sample ID	**MSLCS-24248**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**24248**	RunNo:	**32847**					
Prep Date:	**3/15/2016**	Analysis Date:	**3/16/2016**	SeqNo:	**1006788**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	96.3	85	115			
Uranium	0.012	0.00050	0.01250	0	99.9	85	115			

Sample ID	**MSLLLCS-24248**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**24248**	RunNo:	**32847**					
Prep Date:	**3/15/2016**	Analysis Date:	**3/16/2016**	SeqNo:	**1006793**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	112	50	150			
Lead	0.00049	0.00050	0.0005000	0	97.2	50	150			J
Selenium	0.00090	0.0010	0.001000	0	89.5	50	150			J
Uranium	0.00051	0.00050	0.0005000	0	102	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603229**

05-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-24112**	SampType:	**mblk**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**24112**	RunNo:	**32641**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/8/2016**	SeqNo:	**998822**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-24112**	SampType:	**lcs**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**24112**	RunNo:	**32641**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/8/2016**	SeqNo:	**998823**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	106	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603229**

05-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32618**	RunNo: **32618**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997926** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32618**	RunNo: **32618**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997927** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	101	90	110			
Chloride	4.7	0.50	5.000	0	94.9	90	110			
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	94.6	90	110			
Bromide	2.4	0.10	2.500	0	96.2	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	101	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.5	90	110			
Sulfate	9.7	0.50	10.00	0	97.3	90	110			

Sample ID **1603229-002CMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **OW-10**	Batch ID: **R32618**	RunNo: **32618**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997939** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.68	0.10	0.5000	0.1995	95.8	71.4	120			
Nitrogen, Nitrite (As N)	0.56	0.10	1.000	0	56.0	63.1	112			S
Bromide	2.9	0.10	2.500	1.310	62.9	74.9	117			S
Nitrogen, Nitrate (As N)	2.9	0.10	2.500	0.3980	99.7	87.3	111			
Phosphorus, Orthophosphate (As P	4.5	0.50	5.000	0	89.6	74.2	107			

Sample ID **1603229-002CMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **OW-10**	Batch ID: **R32618**	RunNo: **32618**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997940** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.69	0.10	0.5000	0.1995	97.3	71.4	120	1.10	20	
Nitrogen, Nitrite (As N)	0.57	0.10	1.000	0	57.5	63.1	112	2.52	20	S
Bromide	2.9	0.10	2.500	1.310	64.7	74.9	117	1.55	20	S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603229**

05-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**1603229-002CMSD**	SampType:	**MSD**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**OW-10**	Batch ID:	**R32618**		RunNo:	**32618**				
Prep Date:		Analysis Date:	**3/4/2016**		SeqNo:	**997940**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	2.9	0.10	2.500	0.3980	101	87.3	111	1.24	20	
Phosphorus, Orthophosphate (As P	4.5	0.50	5.000	0	90.6	74.2	107	1.12	20	

Sample ID	**MB**	SampType:	**MBLK**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBW**	Batch ID:	**R32822**		RunNo:	**32822**				
Prep Date:		Analysis Date:	**3/15/2016**		SeqNo:	**1005748**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	**LCS**	SampType:	**LCS**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSW**	Batch ID:	**R32822**		RunNo:	**32822**				
Prep Date:		Analysis Date:	**3/15/2016**		SeqNo:	**1005749**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.7	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603229**

05-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS-24101**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **24101**	RunNo: **32603**
Prep Date: **3/7/2016**	Analysis Date: **3/7/2016**	SeqNo: **997914** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.9	1.0	5.000	0	118	71.3	139			
Surr: DNOP	0.50		0.5000		99.7	70	141			

Sample ID **MB-24101**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **24101**	RunNo: **32603**
Prep Date: **3/7/2016**	Analysis Date: **3/7/2016**	SeqNo: **997915** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.91		1.000		90.8	70	141			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603229**

05-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBW**	Batch ID:	**A32596**	RunNo:	**32596**					
Prep Date:		Analysis Date:	**3/4/2016**	SeqNo:	**997207**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		95.0	49.5	130			

Sample ID	**2.5UG GRO LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSW**	Batch ID:	**A32596**	RunNo:	**32596**					
Prep Date:		Analysis Date:	**3/4/2016**	SeqNo:	**997208**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	103	80	120			
Surr: BFB	21		20.00		106	49.5	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603229**

05-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32660**	RunNo: **32660**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999254** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603229**

05-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32660**	RunNo: **32660**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999254** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	0.19	3.0								J
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		109	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.2	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32660**	RunNo: **32660**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999255** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	70	130			
Toluene	22	1.0	20.00	0	111	70	130			
Chlorobenzene	22	1.0	20.00	0	109	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603229**

05-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32660**	RunNo: **32660**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999255** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21	1.0	20.00	0	105	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	98.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.6	70	130			
Surr: Toluene-d8	10		10.00		99.7	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1603229** RcptNo: 1

Received by/date: AG 03/03/16

Logged By: **Ashley Gallegos** **3/3/2016 4:36:00 PM** AG

Completed By: **Ashley Gallegos** **3/3/2016 6:11:11 PM** AG

Reviewed By: MG 03/04/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 8 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? NO
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: AG

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON @ WNR.COM
QA/QC Package: Standard ☒ Level 4 (Full Validation)
Accreditation: ☒ NELAP ☐ Other
EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
3/6	0940	WATER	KA-3	40 mL VOA-6	HCL	1403229-001
				250 mL AMBER-1	NEAT	
				125 mL PLASTIC-1	H_2SO_4	
				125 mL PLASTIC-1	HNO_3	
				500 mL PLASTIC-1	NEAT	
3/6	1140	WATER	OW-10	40mL VOA-6	HCL	-002
				250mL AMBER-1	NEAT	
				125 mL PLASTIC-1	H_2SO_4	
				125 mL PLASTIC-1	HNO_3	
				250mL PLASTIC-1	HNO_3	
				500 mL PLASTIC-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations/Anions	WQCC Metals (Total & Dissolved)		Air Bubbles (Y or N)
		✓							✓					
		✓									✓			
											✓			
											✓			
		✓							✓					
		✓								TP 3.3.16	✓	✓		
											✓	✓		
												✓		

Relinquished by: Date 3/3/16 Time 1430
Received by: Date 3/3/16 Time 2:39
Relinquished by: Date 3/6 Time 1636
Received by: Date 03/03/16 Time 1336 1624

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard / [X] Level 4 (Full Validation)
Accreditation: NELAP ☐ Other
EDD (Type) EXCEL

Turn-Around Time: [X] Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1603229	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQ METALS (TOTAL & DISSOLVED)		Air Bubbles (Y or N)
3/16	1405	WATER	GW-1	40 mL VOA-6	HCL	-003			✓							✓					
				250 mL AMBER-1	NEAT				✓												
				125 mL PLASTIC-1	H_2SO_4													✓			
				125 mL PLASTIC-1	HNO_3											TP 3.1		✓	✓		
				500 mL PLASTIC-1	HNO_3													✓	✓		
↓	↓	↓	↓	500 mL PLASTIC-1	NEAT														✓		
—	—	WATER	TRIP BLANK	40 mL VOA-4	HCL	-004															

Remarks:

Date	Time	Relinquished by:	Received by:	Date	Time
3/3/16	1430			3/3/16	239
3/3/16	1636			03/03/16	1636

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

April 07, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: Quarterly GW Sampling OrderNo.: 1603424

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 3/8/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-5
Project: Quarterly GW Sampling
Collection Date: 3/7/2016 9:10:00 AM
Lab ID: 1603424-001
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	3.4	0.69	1.0		mg/L	1	3/10/2016 10:13:31 AM	24183
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/10/2016 10:13:31 AM	24183
Surr: DNOP	88.0	0	70-141		%Rec	1	3/10/2016 10:13:31 AM	24183
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	5.5	0.13	0.25		mg/L	5	3/9/2016 3:10:52 PM	A32685
Surr: BFB	117	0	49.5-130		%Rec	5	3/9/2016 3:10:52 PM	A32685
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	390	0.48	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
Toluene	2.4	0.45	5.0	J	µg/L	5	3/14/2016 4:30:29 PM	R32780
Ethylbenzene	150	0.56	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
Methyl tert-butyl ether (MTBE)	2.6	1.1	5.0	J	µg/L	5	3/14/2016 4:30:29 PM	R32780
1,2,4-Trimethylbenzene	41	0.52	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
1,3,5-Trimethylbenzene	13	0.58	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
Naphthalene	120	0.42	10		µg/L	5	3/14/2016 4:30:29 PM	R32780
1-Methylnaphthalene	110	1.0	20		µg/L	5	3/14/2016 4:30:29 PM	R32780
2-Methylnaphthalene	120	0.79	20		µg/L	5	3/14/2016 4:30:29 PM	R32780
Acetone	ND	4.4	50		µg/L	5	3/14/2016 4:30:29 PM	R32780
Bromobenzene	ND	0.40	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
Bromoform	ND	0.51	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
Bromomethane	ND	3.9	15		µg/L	5	3/14/2016 4:30:29 PM	R32780
2-Butanone	ND	1.6	50		µg/L	5	3/14/2016 4:30:29 PM	R32780
Carbon disulfide	ND	3.0	50		µg/L	5	3/14/2016 4:30:29 PM	R32780
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
Chloroethane	ND	0.73	10		µg/L	5	3/14/2016 4:30:29 PM	R32780
Chloroform	ND	0.44	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
Chloromethane	ND	1.1	15		µg/L	5	3/14/2016 4:30:29 PM	R32780
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/14/2016 4:30:29 PM	R32780
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
Dibromomethane	ND	0.60	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-5
Project: Quarterly GW Sampling
Collection Date: 3/7/2016 9:10:00 AM
Lab ID: 1603424-001 **Matrix:** AQUEOUS **Received Date:** 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/14/2016 4:30:29 PM	R32780
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
2-Hexanone	ND	1.8	50		µg/L	5	3/14/2016 4:30:29 PM	R32780
Isopropylbenzene	12	0.49	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
4-Isopropyltoluene	4.8	0.70	5.0	J	µg/L	5	3/14/2016 4:30:29 PM	R32780
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/14/2016 4:30:29 PM	R32780
Methylene Chloride	ND	0.31	15		µg/L	5	3/14/2016 4:30:29 PM	R32780
n-Butylbenzene	14	0.80	15	J	µg/L	5	3/14/2016 4:30:29 PM	R32780
n-Propylbenzene	32	0.66	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
sec-Butylbenzene	10	0.54	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
Styrene	ND	0.48	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/14/2016 4:30:29 PM	R32780
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/14/2016 4:30:29 PM	R32780
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/14/2016 4:30:29 PM	R32780
Xylenes, Total	86	1.6	7.5		µg/L	5	3/14/2016 4:30:29 PM	R32780
Surr: 1,2-Dichloroethane-d4	89.5	0	70-130		%Rec	5	3/14/2016 4:30:29 PM	R32780
Surr: 4-Bromofluorobenzene	88.6	0	70-130		%Rec	5	3/14/2016 4:30:29 PM	R32780
Surr: Dibromofluoromethane	95.7	0	70-130		%Rec	5	3/14/2016 4:30:29 PM	R32780
Surr: Toluene-d8	102	0	70-130		%Rec	5	3/14/2016 4:30:29 PM	R32780

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-6
Project: Quarterly GW Sampling
Collection Date: 3/7/2016 10:10:00 AM
Lab ID: 1603424-002
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	6.1	0.69	1.0		mg/L	1	3/10/2016 11:17:35 AM	24183
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/10/2016 11:17:35 AM	24183
Surr: DNOP	90.3	0	70-141		%Rec	1	3/10/2016 11:17:35 AM	24183
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	12	0.51	1.0		mg/L	20	3/9/2016 4:24:25 PM	A32685
Surr: BFB	113	0	49.5-130		%Rec	20	3/9/2016 4:24:25 PM	A32685
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	390	0.96	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
Toluene	190	0.89	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
Ethylbenzene	510	1.1	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
Methyl tert-butyl ether (MTBE)	21	2.1	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
1,2,4-Trimethylbenzene	75	1.0	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
1,3,5-Trimethylbenzene	130	1.2	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
1,2-Dichloroethane (EDC)	ND	0.53	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
Naphthalene	590	4.2	100		µg/L	50	3/11/2016 8:58:15 PM	R32763
1-Methylnaphthalene	280	2.0	40		µg/L	10	3/14/2016 4:59:11 PM	R32780
2-Methylnaphthalene	330	1.6	40		µg/L	10	3/14/2016 4:59:11 PM	R32780
Acetone	35	8.8	100	J	µg/L	10	3/14/2016 4:59:11 PM	R32780
Bromobenzene	ND	0.80	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
Bromodichloromethane	ND	0.98	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
Bromoform	ND	1.0	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
Bromomethane	ND	7.8	30		µg/L	10	3/14/2016 4:59:11 PM	R32780
2-Butanone	14	3.2	100	J	µg/L	10	3/14/2016 4:59:11 PM	R32780
Carbon disulfide	ND	6.0	100		µg/L	10	3/14/2016 4:59:11 PM	R32780
Carbon Tetrachloride	ND	1.1	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
Chlorobenzene	ND	1.0	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
Chloroethane	ND	1.5	20		µg/L	10	3/14/2016 4:59:11 PM	R32780
Chloroform	ND	0.89	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
Chloromethane	ND	2.1	30		µg/L	10	3/14/2016 4:59:11 PM	R32780
2-Chlorotoluene	ND	4.0	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
4-Chlorotoluene	ND	1.3	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
cis-1,2-DCE	ND	1.2	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
cis-1,3-Dichloropropene	ND	1.0	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
1,2-Dibromo-3-chloropropane	ND	1.5	20		µg/L	10	3/14/2016 4:59:11 PM	R32780
Dibromochloromethane	ND	0.87	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
Dibromomethane	ND	1.2	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	3/14/2016 4:59:11 PM	R32780

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-6
Project: Quarterly GW Sampling
Collection Date: 3/7/2016 10:10:00 AM
Lab ID: 1603424-002
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
Dichlorodifluoromethane	ND	3.2	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
1,1-Dichloroethane	ND	1.1	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
1,1-Dichloroethene	ND	0.76	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
1,2-Dichloropropane	ND	0.47	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
1,3-Dichloropropane	ND	1.6	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
2,2-Dichloropropane	ND	1.2	20		µg/L	10	3/14/2016 4:59:11 PM	R32780
1,1-Dichloropropene	ND	1.3	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
Hexachlorobutadiene	ND	2.0	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
2-Hexanone	ND	3.6	100		µg/L	10	3/14/2016 4:59:11 PM	R32780
Isopropylbenzene	45	0.98	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
4-Isopropyltoluene	10	1.4	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
4-Methyl-2-pentanone	ND	1.5	100		µg/L	10	3/14/2016 4:59:11 PM	R32780
Methylene Chloride	ND	0.63	30		µg/L	10	3/14/2016 4:59:11 PM	R32780
n-Butylbenzene	20	1.6	30	J	µg/L	10	3/14/2016 4:59:11 PM	R32780
n-Propylbenzene	93	1.3	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
sec-Butylbenzene	12	1.1	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
Styrene	ND	0.95	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
tert-Butylbenzene	ND	0.96	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
1,1,2,2-Tetrachloroethane	ND	1.1	20		µg/L	10	3/14/2016 4:59:11 PM	R32780
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
trans-1,2-DCE	ND	4.0	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
trans-1,3-Dichloropropene	ND	0.85	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
1,1,1-Trichloroethane	ND	0.63	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
1,1,2-Trichloroethane	ND	0.77	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
Trichlorofluoromethane	ND	0.88	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
1,2,3-Trichloropropane	ND	1.1	20		µg/L	10	3/14/2016 4:59:11 PM	R32780
Vinyl chloride	ND	0.63	10		µg/L	10	3/14/2016 4:59:11 PM	R32780
Xylenes, Total	1200	3.2	15		µg/L	10	3/14/2016 4:59:11 PM	R32780
Surr: 1,2-Dichloroethane-d4	86.5	0	70-130		%Rec	10	3/14/2016 4:59:11 PM	R32780
Surr: 4-Bromofluorobenzene	92.0	0	70-130		%Rec	10	3/14/2016 4:59:11 PM	R32780
Surr: Dibromofluoromethane	96.7	0	70-130		%Rec	10	3/14/2016 4:59:11 PM	R32780
Surr: Toluene-d8	103	0	70-130		%Rec	10	3/14/2016 4:59:11 PM	R32780

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-2
Project: Quarterly GW Sampling
Collection Date: 3/7/2016 11:45:00 AM
Lab ID: 1603424-003
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	7.2	0.69	1.0		mg/L	1	3/10/2016 11:38:59 AM	24183
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/10/2016 11:38:59 AM	24183
Surr: DNOP	91.4	0	70-141		%Rec	1	3/10/2016 11:38:59 AM	24183
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	160	5.1	10		mg/L	200	3/9/2016 4:49:01 PM	A32685
Surr: BFB	92.3	0	49.5-130		%Rec	200	3/9/2016 4:49:01 PM	A32685
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	46000	96	1000		µg/L	1000	3/14/2016 5:27:50 PM	R32780
Toluene	4100	4.5	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
Ethylbenzene	1200	5.6	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
Methyl tert-butyl ether (MTBE)	1900	11	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
1,2,4-Trimethylbenzene	180	5.2	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
1,3,5-Trimethylbenzene	28	5.8	50	J	µg/L	50	3/11/2016 9:56:03 PM	R32763
1,2-Dichloroethane (EDC)	ND	2.6	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
1,2-Dibromoethane (EDB)	ND	5.6	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
Naphthalene	100	4.2	100		µg/L	50	3/11/2016 9:56:03 PM	R32763
1-Methylnaphthalene	69	10	200	J	µg/L	50	3/11/2016 9:56:03 PM	R32763
2-Methylnaphthalene	28	7.9	200	J	µg/L	50	3/11/2016 9:56:03 PM	R32763
Acetone	ND	44	500		µg/L	50	3/11/2016 9:56:03 PM	R32763
Bromobenzene	ND	4.0	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
Bromodichloromethane	ND	4.9	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
Bromoform	ND	5.1	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
Bromomethane	ND	39	150		µg/L	50	3/11/2016 9:56:03 PM	R32763
2-Butanone	ND	16	500		µg/L	50	3/11/2016 9:56:03 PM	R32763
Carbon disulfide	ND	30	500		µg/L	50	3/11/2016 9:56:03 PM	R32763
Carbon Tetrachloride	ND	5.4	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
Chlorobenzene	ND	5.2	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
Chloroethane	ND	7.3	100		µg/L	50	3/11/2016 9:56:03 PM	R32763
Chloroform	ND	4.4	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
Chloromethane	ND	11	150		µg/L	50	3/11/2016 9:56:03 PM	R32763
2-Chlorotoluene	ND	20	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
4-Chlorotoluene	ND	6.4	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
cis-1,2-DCE	ND	6.2	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
cis-1,3-Dichloropropene	ND	5.0	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
1,2-Dibromo-3-chloropropane	ND	7.7	100		µg/L	50	3/11/2016 9:56:03 PM	R32763
Dibromochloromethane	ND	4.3	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
Dibromomethane	ND	6.0	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
1,2-Dichlorobenzene	ND	20	50		µg/L	50	3/11/2016 9:56:03 PM	R32763

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-2
Project: Quarterly GW Sampling
Collection Date: 3/7/2016 11:45:00 AM
Lab ID: 1603424-003
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	7.2	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
1,4-Dichlorobenzene	ND	7.1	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
Dichlorodifluoromethane	ND	16	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
1,1-Dichloroethane	ND	5.4	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
1,1-Dichloroethene	ND	3.8	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
1,2-Dichloropropane	ND	2.4	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
1,3-Dichloropropane	ND	7.8	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
2,2-Dichloropropane	ND	6.0	100		µg/L	50	3/11/2016 9:56:03 PM	R32763
1,1-Dichloropropene	ND	6.7	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
Hexachlorobutadiene	ND	9.9	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
2-Hexanone	ND	18	500		µg/L	50	3/11/2016 9:56:03 PM	R32763
Isopropylbenzene	11	4.9	50	J	µg/L	50	3/11/2016 9:56:03 PM	R32763
4-Isopropyltoluene	ND	7.0	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
4-Methyl-2-pentanone	ND	7.5	500		µg/L	50	3/11/2016 9:56:03 PM	R32763
Methylene Chloride	ND	3.1	150		µg/L	50	3/11/2016 9:56:03 PM	R32763
n-Butylbenzene	ND	8.0	150		µg/L	50	3/11/2016 9:56:03 PM	R32763
n-Propylbenzene	45	6.6	50	J	µg/L	50	3/11/2016 9:56:03 PM	R32763
sec-Butylbenzene	ND	5.4	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
Styrene	ND	4.8	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
tert-Butylbenzene	ND	4.8	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
1,1,1,2-Tetrachloroethane	ND	5.6	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
1,1,2,2-Tetrachloroethane	ND	5.3	100		µg/L	50	3/11/2016 9:56:03 PM	R32763
Tetrachloroethene (PCE)	ND	7.6	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
trans-1,2-DCE	ND	20	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
trans-1,3-Dichloropropene	ND	4.2	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
1,2,3-Trichlorobenzene	ND	5.6	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
1,2,4-Trichlorobenzene	ND	6.6	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
1,1,1-Trichloroethane	ND	3.2	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
1,1,2-Trichloroethane	ND	3.8	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
Trichloroethene (TCE)	ND	8.8	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
Trichlorofluoromethane	ND	4.4	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
1,2,3-Trichloropropane	ND	5.6	100		µg/L	50	3/11/2016 9:56:03 PM	R32763
Vinyl chloride	ND	3.2	50		µg/L	50	3/11/2016 9:56:03 PM	R32763
Xylenes, Total	3500	16	75		µg/L	50	3/11/2016 9:56:03 PM	R32763
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	50	3/11/2016 9:56:03 PM	R32763
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	50	3/11/2016 9:56:03 PM	R32763
Surr: Dibromofluoromethane	109	0	70-130		%Rec	50	3/11/2016 9:56:03 PM	R32763
Surr: Toluene-d8	99.6	0	70-130		%Rec	50	3/11/2016 9:56:03 PM	R32763

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW to EP-2 Inlet
Project: Quarterly GW Sampling
Collection Date: 3/7/2016 1:45:00 PM
Lab ID: 1603424-004 **Matrix:** AQUEOUS **Received Date:** 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.23	1.0		mg/L	10	3/19/2016 5:39:58 AM	A32919
Chloride	4300	14	250		mg/L	500	3/19/2016 5:52:21 AM	A32919
Bromide	ND	0.32	1.0		mg/L	10	3/19/2016 5:39:58 AM	A32919
Phosphorus, Orthophosphate (As P)	ND	2.2	5.0	H	mg/L	10	3/19/2016 5:39:58 AM	A32919
Sulfate	400	6.4	50		mg/L	100	3/9/2016 5:44:30 PM	R32690
Nitrate+Nitrite as N	ND	1.7	4.0		mg/L	20	3/19/2016 6:04:46 AM	A32919
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Calcium	300	1.3	5.0		mg/L	5	3/24/2016 4:34:17 PM	B33038
Magnesium	52	0.013	1.0		mg/L	1	3/24/2016 4:32:18 PM	B33038
Potassium	15	0.18	1.0		mg/L	1	3/24/2016 4:32:18 PM	B33038
Sodium	2400	4.8	50		mg/L	50	3/24/2016 4:36:20 PM	B33038

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-30
Project: Quarterly GW Sampling
Collection Date: 3/8/2016 9:45:00 AM
Lab ID: 1603424-005
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/10/2016 12:00:18 PM	24183
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/10/2016 12:00:18 PM	24183
Surr: DNOP	87.4	0	70-141		%Rec	1	3/10/2016 12:00:18 PM	24183
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	4.4	0.13	0.25		mg/L	5	3/9/2016 5:13:39 PM	A32685
Surr: BFB	85.3	0	49.5-130		%Rec	5	3/9/2016 5:13:39 PM	A32685
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.091	0.0013	0.0020		mg/L	1	3/24/2016 4:38:06 PM	B33038
Cadmium	ND	0.00075	0.0020		mg/L	1	3/24/2016 4:38:06 PM	B33038
Chromium	ND	0.0018	0.0060		mg/L	1	3/24/2016 4:38:06 PM	B33038
Copper	ND	0.0040	0.0060		mg/L	1	3/24/2016 4:38:06 PM	B33038
Iron	0.061	0.0091	0.020		mg/L	1	3/24/2016 4:38:06 PM	B33038
Manganese	0.037	0.00032	0.0020		mg/L	1	3/24/2016 4:38:06 PM	B33038
Silver	ND	0.0028	0.0050		mg/L	1	3/24/2016 4:38:06 PM	B33038
Zinc	ND	0.0028	0.010		mg/L	1	3/24/2016 4:38:06 PM	B33038
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.092	0.0011	0.0020		mg/L	1	3/18/2016 4:40:47 PM	24203
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 4:40:47 PM	24203
Chromium	ND	0.0022	0.0060		mg/L	1	3/18/2016 4:40:47 PM	24203
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 4:40:47 PM	24203
Iron	0.052	0.0072	0.020		mg/L	1	3/18/2016 4:40:47 PM	24203
Manganese	0.034	0.0015	0.0020		mg/L	1	3/18/2016 4:40:47 PM	24203
Silver	ND	0.0021	0.0050		mg/L	1	3/18/2016 4:40:47 PM	24203
Zinc	ND	0.0039	0.010		mg/L	1	3/18/2016 4:40:47 PM	24203
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0019	0.00032	0.0050	J	mg/L	5	3/31/2016 3:00:25 PM	B33223
Lead	0.00022	0.000026	0.00050	J	mg/L	1	3/30/2016 8:04:07 PM	B33186
Selenium	0.0043	0.00097	0.0050	J	mg/L	5	3/31/2016 3:00:25 PM	B33223
Uranium	0.049	0.000024	0.0025	*	mg/L	5	3/31/2016 3:00:25 PM	B33223
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.0015	0.0050		mg/L	5	3/24/2016 2:56:34 PM	24203
Lead	ND	0.00024	0.0025		mg/L	5	3/24/2016 2:56:34 PM	24203
Selenium	0.0026	0.00062	0.0050	J	mg/L	5	3/24/2016 2:56:34 PM	24203
Uranium	0.047	0.000025	0.0025	*	mg/L	5	3/24/2016 2:56:34 PM	24203
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/14/2016 5:01:56 PM	24206

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Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-30
Project: Quarterly GW Sampling
Collection Date: 3/8/2016 9:45:00 AM
Lab ID: 1603424-005 **Matrix:** AQUEOUS **Received Date:** 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	3.1	0.19	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Toluene	ND	0.18	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Ethylbenzene	ND	0.22	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Methyl tert-butyl ether (MTBE)	3500	11	50		µg/L	50	3/14/2016 5:56:49 PM	R32780
1,2,4-Trimethylbenzene	ND	0.21	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
1,3,5-Trimethylbenzene	ND	0.23	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
1,2-Dichloroethane (EDC)	0.50	0.11	2.0	J	µg/L	2	3/14/2016 6:25:37 PM	R32780
1,2-Dibromoethane (EDB)	ND	0.22	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Naphthalene	ND	0.17	4.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
1-Methylnaphthalene	ND	0.41	8.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
2-Methylnaphthalene	ND	0.32	8.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Acetone	3.0	1.8	20	J	µg/L	2	3/14/2016 6:25:37 PM	R32780
Bromobenzene	ND	0.16	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Bromodichloromethane	ND	0.20	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Bromoform	ND	0.20	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Bromomethane	ND	1.6	6.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
2-Butanone	ND	0.64	20		µg/L	2	3/14/2016 6:25:37 PM	R32780
Carbon disulfide	ND	1.2	20		µg/L	2	3/14/2016 6:25:37 PM	R32780
Carbon Tetrachloride	ND	0.22	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Chlorobenzene	ND	0.21	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Chloroethane	ND	0.29	4.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Chloroform	ND	0.18	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Chloromethane	ND	0.43	6.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
2-Chlorotoluene	ND	0.80	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
4-Chlorotoluene	ND	0.26	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
cis-1,2-DCE	ND	0.25	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
cis-1,3-Dichloropropene	ND	0.20	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
1,2-Dibromo-3-chloropropane	ND	0.31	4.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Dibromochloromethane	ND	0.17	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Dibromomethane	ND	0.24	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
1,2-Dichlorobenzene	ND	0.80	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
1,3-Dichlorobenzene	ND	0.29	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
1,4-Dichlorobenzene	ND	0.29	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Dichlorodifluoromethane	ND	0.65	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
1,1-Dichloroethane	ND	0.22	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
1,1-Dichloroethene	ND	0.15	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
1,2-Dichloropropane	ND	0.094	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
1,3-Dichloropropane	ND	0.31	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
2,2-Dichloropropane	ND	0.24	4.0		µg/L	2	3/14/2016 6:25:37 PM	R32780

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-30
Project: Quarterly GW Sampling
Collection Date: 3/8/2016 9:45:00 AM
Lab ID: 1603424-005 **Matrix:** AQUEOUS **Received Date:** 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloropropene	ND	0.27	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Hexachlorobutadiene	ND	0.40	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
2-Hexanone	ND	0.72	20		µg/L	2	3/14/2016 6:25:37 PM	R32780
Isopropylbenzene	ND	0.20	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
4-Isopropyltoluene	ND	0.28	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
4-Methyl-2-pentanone	ND	0.30	20		µg/L	2	3/14/2016 6:25:37 PM	R32780
Methylene Chloride	0.63	0.13	6.0	J	µg/L	2	3/14/2016 6:25:37 PM	R32780
n-Butylbenzene	ND	0.32	6.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
n-Propylbenzene	ND	0.26	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
sec-Butylbenzene	ND	0.22	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Styrene	ND	0.19	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
tert-Butylbenzene	ND	0.19	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
1,1,1,2-Tetrachloroethane	ND	0.22	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
1,1,2,2-Tetrachloroethane	ND	0.21	4.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Tetrachloroethene (PCE)	ND	0.30	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
trans-1,2-DCE	ND	0.80	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
trans-1,3-Dichloropropene	ND	0.17	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
1,2,3-Trichlorobenzene	ND	0.23	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
1,2,4-Trichlorobenzene	ND	0.27	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
1,1,1-Trichloroethane	ND	0.13	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
1,1,2-Trichloroethane	ND	0.15	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Trichloroethene (TCE)	ND	0.35	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Trichlorofluoromethane	ND	0.18	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
1,2,3-Trichloropropane	ND	0.22	4.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Vinyl chloride	ND	0.13	2.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Xylenes, Total	ND	0.65	3.0		µg/L	2	3/14/2016 6:25:37 PM	R32780
Surr: 1,2-Dichloroethane-d4	105	0	70-130		%Rec	2	3/14/2016 6:25:37 PM	R32780
Surr: 4-Bromofluorobenzene	105	0	70-130		%Rec	2	3/14/2016 6:25:37 PM	R32780
Surr: Dibromofluoromethane	119	0	70-130		%Rec	2	3/14/2016 6:25:37 PM	R32780
Surr: Toluene-d8	107	0	70-130		%Rec	2	3/14/2016 6:25:37 PM	R32780

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1603424-006
Matrix: TRIP BLANK
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Toluene	ND	0.089	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Naphthalene	ND	0.083	2.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Acetone	6.0	0.88	10	J	µg/L	1	3/14/2016 4:01:42 PM	R32780
Bromobenzene	ND	0.080	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Bromoform	ND	0.10	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Bromomethane	ND	0.78	3.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
2-Butanone	1.0	0.32	10	J	µg/L	1	3/14/2016 4:01:42 PM	R32780
Carbon disulfide	ND	0.60	10		µg/L	1	3/14/2016 4:01:42 PM	R32780
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Chloroethane	ND	0.15	2.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Chloroform	ND	0.089	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Chloromethane	ND	0.21	3.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Dibromomethane	ND	0.12	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/14/2016 4:01:42 PM	R32780

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1603424-006
Matrix: TRIP BLANK
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
2-Hexanone	ND	0.36	10		µg/L	1	3/14/2016 4:01:42 PM	R32780
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/14/2016 4:01:42 PM	R32780
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Styrene	ND	0.095	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/14/2016 4:01:42 PM	R32780
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/14/2016 4:01:42 PM	R32780
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	1	3/14/2016 4:01:42 PM	R32780
Surr: 4-Bromofluorobenzene	104	0	70-130		%Rec	1	3/14/2016 4:01:42 PM	R32780
Surr: Dibromofluoromethane	106	0	70-130		%Rec	1	3/14/2016 4:01:42 PM	R32780
Surr: Toluene-d8	106	0	70-130		%Rec	1	3/14/2016 4:01:42 PM	R32780

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603424**

07-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33038**	RunNo: **33038**
Prep Date:	Analysis Date: **3/24/2016**	SeqNo: **1013676** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33038**	RunNo: **33038**
Prep Date:	Analysis Date: **3/24/2016**	SeqNo: **1013677** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.0020	0.5000	0	94.9	85	115			
Cadmium	0.49	0.0020	0.5000	0	97.0	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	95.8	85	115			
Copper	0.47	0.0060	0.5000	0	93.2	85	115			
Iron	0.49	0.020	0.5000	0	98.5	85	115			
Magnesium	50	1.0	50.00	0	101	85	115			
Manganese	0.46	0.0020	0.5000	0	93.0	85	115			
Potassium	49	1.0	50.00	0	98.6	85	115			
Silver	0.098	0.0050	0.1000	0	98.4	85	115			
Sodium	49	1.0	50.00	0	99.0	85	115			
Zinc	0.48	0.010	0.5000	0	96.1	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33038**	RunNo: **33038**
Prep Date:	Analysis Date: **3/24/2016**	SeqNo: **1013678** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0016	0.0020	0.002000	0	79.0	50	150			J
Cadmium	0.0023	0.0020	0.002000	0	113	50	150			
Calcium	0.53	1.0	0.5000	0	106	50	150			J
Chromium	0.0066	0.0060	0.006000	0	110	50	150			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603424**

07-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**LLLCS-B**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Dissolved Metals**
Client ID:	**BatchQC**	Batch ID:	**B33038**	RunNo:	**33038**
Prep Date:		Analysis Date:	**3/24/2016**	SeqNo:	**1013678** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0068	0.0060	0.006000	0	113	50	150			
Iron	0.022	0.020	0.02000	0	110	50	150			
Magnesium	0.52	1.0	0.5000	0	104	50	150			J
Manganese	0.0020	0.0020	0.002000	0	101	50	150			
Potassium	0.56	1.0	0.5000	0	112	50	150			J
Silver	0.0044	0.0050	0.005000	0	89.0	50	150			J
Sodium	0.50	1.0	0.5000	0	101	50	150			J
Zinc	0.0049	0.010	0.005000	0	98.8	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603424**

07-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB-24203**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **24203**	RunNo: **32754**
Prep Date: **3/10/2016**	Analysis Date: **3/11/2016**	SeqNo: **1002486** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-24203**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **24203**	RunNo: **32754**
Prep Date: **3/10/2016**	Analysis Date: **3/11/2016**	SeqNo: **1002487** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.5	85	115			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	98.3	85	115			
Copper	0.50	0.0060	0.5000	0	99.6	85	115			
Iron	0.49	0.020	0.5000	0	97.8	85	115			
Manganese	0.49	0.0020	0.5000	0	98.3	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

Sample ID **LLLCS-24203**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **24203**	RunNo: **32754**
Prep Date: **3/10/2016**	Analysis Date: **3/11/2016**	SeqNo: **1002488** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0015	0.0020	0.002000	0	76.0	50	150			J
Cadmium	0.0022	0.0020	0.002000	0	110	50	150			
Chromium	0.0062	0.0060	0.006000	0	103	50	150			
Copper	0.0057	0.0060	0.006000	0	94.3	50	150			J
Iron	0.019	0.020	0.02000	0	96.8	50	150			J
Manganese	0.0018	0.0020	0.002000	0	88.5	50	150			J
Silver	0.0048	0.0050	0.005000	0	96.8	50	150			J
Zinc	0.0065	0.010	0.005000	0	130	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603424**

07-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33186**	RunNo: **33186**
Prep Date:	Analysis Date: **3/30/2016**	SeqNo: **1019346** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	94.7	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33186**	RunNo: **33186**
Prep Date:	Analysis Date: **3/30/2016**	SeqNo: **1019347** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00050	0.00050	0.0005000	0	99.6	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33186**	RunNo: **33186**
Prep Date:	Analysis Date: **3/30/2016**	SeqNo: **1019348** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33223**	RunNo: **33223**
Prep Date:	Analysis Date: **3/31/2016**	SeqNo: **1020326** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.025	0.0010	0.02500	0	102	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33223**	RunNo: **33223**
Prep Date:	Analysis Date: **3/31/2016**	SeqNo: **1020327** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	108	50	150			
Selenium	0.0011	0.0010	0.001000	0	109	50	150			
Uranium	0.00051	0.00050	0.0005000	0	101	50	150			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33223**	RunNo: **33223**
Prep Date:	Analysis Date: **3/31/2016**	SeqNo: **1020328** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603424**

07-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33223**	RunNo: **33223**
Prep Date:	Analysis Date: **3/31/2016**	SeqNo: **1020328** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603424**

07-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-24203**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**24203**	RunNo:	**32737**					
Prep Date:		Analysis Date:	**3/11/2016**	SeqNo:	**1002117**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-24203**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**24203**	RunNo:	**32737**					
Prep Date:	**3/10/2016**	Analysis Date:	**3/11/2016**	SeqNo:	**1002118**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	95.9	85	115			
Uranium	0.013	0.00050	0.01250	0	100	85	115			

Sample ID	**MSLLLCS-24203**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**24203**	RunNo:	**32737**					
Prep Date:	**3/10/2016**	Analysis Date:	**3/11/2016**	SeqNo:	**1002119**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	102	50	150			
Lead	0.00041	0.00050	0.0005000	0	81.7	50	150			J
Selenium	0.00081	0.0010	0.001000	0	80.6	50	150			J
Uranium	0.00044	0.00050	0.0005000	0	88.1	50	150			J

Sample ID	**1603424-005CMSLL**	SampType:	**MSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**OW-30**	Batch ID:	**24203**	RunNo:	**33048**					
Prep Date:	**3/10/2016**	Analysis Date:	**3/24/2016**	SeqNo:	**1013850**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0050	0.02500	0	107	70	130			
Lead	0.014	0.0025	0.01250	0	110	70	130			
Selenium	0.027	0.0050	0.02500	0.002628	99.0	70	130			
Uranium	0.062	0.0025	0.01250	0.04722	118	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603424**

07-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-24206**	SampType:	**mblk**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**24206**	RunNo:	**32782**					
Prep Date:	**3/10/2016**	Analysis Date:	**3/14/2016**	SeqNo:	**1004542**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-24206**	SampType:	**lcs**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**24206**	RunNo:	**32782**					
Prep Date:	**3/10/2016**	Analysis Date:	**3/14/2016**	SeqNo:	**1004545**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	107	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603424**

07-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32690**	RunNo: **32690**
Prep Date:	Analysis Date: **3/9/2016**	SeqNo: **1000486** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32690**	RunNo: **32690**
Prep Date:	Analysis Date: **3/9/2016**	SeqNo: **1000487** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.9	0.50	10.00	0	99.2	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A32919**	RunNo: **32919**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1009533** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	0.10	0.50								J
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A32919**	RunNo: **32919**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1009534** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.55	0.10	0.5000	0	109	90	110			
Chloride	4.8	0.50	5.000	0	96.5	90	110			
Bromide	2.6	0.10	2.500	0	103	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.8	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	101	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603424**

07-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB-24183**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **24183**	RunNo: **32691**
Prep Date: **3/10/2016**	Analysis Date: **3/10/2016**	SeqNo: **1000583** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.89		1.000		89.0	70	141			

Sample ID **LCS-24183**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **24183**	RunNo: **32691**
Prep Date: **3/10/2016**	Analysis Date: **3/10/2016**	SeqNo: **1000584** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.4	1.0	5.000	0	87.0	71.3	139			
Surr: DNOP	0.44		0.5000		87.1	70	141			

Sample ID **1603424-001BMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **RW-5**	Batch ID: **24183**	RunNo: **32691**
Prep Date: **3/10/2016**	Analysis Date: **3/10/2016**	SeqNo: **1000587** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	8.6	1.0	5.000	3.375	104	59.4	160			
Surr: DNOP	0.43		0.5000		85.7	70	141			

Sample ID **1603424-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **RW-5**	Batch ID: **24183**	RunNo: **32691**
Prep Date: **3/10/2016**	Analysis Date: **3/10/2016**	SeqNo: **1001359** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	8.3	1.0	5.000	3.375	99.0	59.4	160	3.10	20	
Surr: DNOP	0.44		0.5000		87.8	70	141	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603424**

07-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **A32685**	RunNo: **32685**
Prep Date:	Analysis Date: **3/9/2016**	SeqNo: **1000174** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		91.0	49.5	130			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **A32685**	RunNo: **32685**
Prep Date:	Analysis Date: **3/9/2016**	SeqNo: **1000175** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	103	80	120			
Surr: BFB	20		20.00		101	49.5	130			

Sample ID **1603424-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **RW-5**	Batch ID: **A32685**	RunNo: **32685**
Prep Date:	Analysis Date: **3/9/2016**	SeqNo: **1000184** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	7.9	0.25	2.500	5.509	95.6	70	130			
Surr: BFB	130		100.0		128	49.5	130			

Sample ID **1603424-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **RW-5**	Batch ID: **A32685**	RunNo: **32685**
Prep Date:	Analysis Date: **3/9/2016**	SeqNo: **1000185** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	7.6	0.25	2.500	5.509	83.8	70	130	3.83	20	
Surr: BFB	130		100.0		126	49.5	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603424**

07-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32763**	RunNo: **32763**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1003148** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	22	1.0	20.00	0	108	70	130			
Chlorobenzene	22	1.0	20.00	0	109	70	130			
1,1-Dichloroethene	23	1.0	20.00	0	113	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		109	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32763**	RunNo: **32763**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1003149** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	0.14	1.0								J
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	0.15	1.0								J
cis-1,2-DCE	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603424**

07-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32763**	RunNo: **32763**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1003149** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	0.48	3.0								J
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603424**

07-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32763**	RunNo: **32763**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1003149** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.3	70	130			
Surr: Dibromofluoromethane	12		10.00		122	70	130			
Surr: Toluene-d8	11		10.00		110	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32780**	RunNo: **32780**
Prep Date:	Analysis Date: **3/14/2016**	SeqNo: **1004330** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	21	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	25	1.0	20.00	0	124	70	130			
Trichloroethene (TCE)	23	1.0	20.00	0	114	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		113	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	12		10.00		124	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32780**	RunNo: **32780**
Prep Date:	Analysis Date: **3/14/2016**	SeqNo: **1004331** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603424**

07-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32780**	RunNo: **32780**
Prep Date:	Analysis Date: **3/14/2016**	SeqNo: **1004331** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	0.43	3.0								J
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1603424**
07-Apr-16

Client: Western Refining Southwest, Gallup
Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32780**	RunNo: **32780**
Prep Date:	Analysis Date: **3/14/2016**	SeqNo: **1004331** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		98.9	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.1	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	9.9		10.00		98.7	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1603424 RcptNo: 1

Received by/date: AG 03/08/16

Logged By: Ashley Gallegos 3/8/2016 3:23:00 PM AG

Completed By: Ashley Gallegos 3/8/2016 5:06:33 PM AG

Reviewed By: IO 03/08/16 IO

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 4 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? NO
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard / [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1103424	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations / Anions				Air Bubbles (Y or N)
7.16	0910	WATER	RW-5	40 mL VOA-6	HCL	-001			✓							✓						
	↓		↓	250 mL AMBER-1	NEAT	-			✓													
	1010		RW-6	40 mL VOA-6	HCL	-002			✓							✓						
	↓		↓	250 mL AMBER-1	NEAT				✓													
	1145		RW-2	40 mL VOA-6	HCL	-003			✓							✓						
↓	↓	↓	↓	250 mL AMBER-1	NEAT				✓													
7.16	1345	WATER	BW TO EP-2 ~~INLET~~ INLET	500 mL PLASTIC-1	NEAT	-004												✓				
	↓	↓	↓	125 mL PLASTIC-1	HNO_3													✓				
↓	↓	↓	↓	125 mL PLASTIC-1	H_2SO_4													✓				

Date	Time	Relinquished by:	Received by:	Date	Time
3/8/16	1206			3/8/16	1229
3/8/16	1523				

Received by: JAM Jaramillo 03/08/16 1523

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

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Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1603424	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	WQCC METALS (TOTAL & Dissolved)			Air Bubbles (Y or N)
3-8-16	0945	WATER	OW-30	40 ML VOA-6	HCL	-005			✓							✓					
				250 ML AMBER-1	NEAT				✓												
				500 ML PLASTIC-1	NEAT													✓			
				250 ML PLASTIC-1	HNO_3													✓			
				250 ML PLASTIC-1	H_2SO_4													✓			
↓	↓	↓	↓	500 ML PLASTIC-1	HNO_3													✓			
—	—	WATER	TRIP BLANK	40 ML VOA-4	HCL	-006										✓					

Date:	Time:	Relinquished by:	Received by:	Date	Time
3/4/16	1206			3/4/16	1229
3/7/16	1523		ANGELICOS	03/08/16	1523

Remarks:

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Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

April 04, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: Quarterly GW Sampling OrderNo.: 1603152

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 3/2/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-21
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 8:40:00 AM
Lab ID: 1603152-001 **Matrix:** AQUEOUS **Received Date:** 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	3.6	0.69	1.0		mg/L	1	3/7/2016 1:16:41 PM	24101
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/7/2016 1:16:41 PM	24101
Surr: DNOP	95.2	0	70-141		%Rec	1	3/7/2016 1:16:41 PM	24101
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	24	0.25	0.50		mg/L	10	3/4/2016 2:01:26 PM	A32596
Surr: BFB	102	0	49.5-130		%Rec	10	3/4/2016 2:01:26 PM	A32596
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Aniline	ND	9.8	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Anthracene	ND	6.6	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Benzoic acid	36	9.8	20		µg/L	1	3/13/2016 7:50:17 PM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/13/2016 7:50:17 PM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Carbazole	ND	7.2	10		µg/L	1	3/13/2016 7:50:17 PM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/13/2016 7:50:17 PM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/13/2016 7:50:17 PM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/13/2016 7:50:17 PM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/13/2016 7:50:17 PM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Chrysene	ND	6.6	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/13/2016 7:50:17 PM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/13/2016 7:50:17 PM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/13/2016 7:50:17 PM	24121

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-21
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 8:40:00 AM
Lab ID: 1603152-001 **Matrix:** AQUEOUS **Received Date:** 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/13/2016 7:50:17 PM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/13/2016 7:50:17 PM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/13/2016 7:50:17 PM	24121
2,4-Dimethylphenol	5.7	4.7	10	J	µg/L	1	3/13/2016 7:50:17 PM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/13/2016 7:50:17 PM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/13/2016 7:50:17 PM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/13/2016 7:50:17 PM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Fluorene	ND	7.2	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Isophorone	ND	8.1	10		µg/L	1	3/13/2016 7:50:17 PM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/13/2016 7:50:17 PM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/13/2016 7:50:17 PM	24121
2-Methylphenol	ND	8.2	10		µg/L	1	3/13/2016 7:50:17 PM	24121
3+4-Methylphenol	120	7.1	10		µg/L	1	3/13/2016 7:50:17 PM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/13/2016 7:50:17 PM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/13/2016 7:50:17 PM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/13/2016 7:50:17 PM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/13/2016 7:50:17 PM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/13/2016 7:50:17 PM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/13/2016 7:50:17 PM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/13/2016 7:50:17 PM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/13/2016 7:50:17 PM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Phenol	37	5.1	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Pyrene	ND	5.5	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Pyridine	ND	6.7	10		µg/L	1	3/13/2016 7:50:17 PM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/13/2016 7:50:17 PM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/13/2016 7:50:17 PM	24121

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Collection Date: 3/1/2016 8:40:00 AM
Lab ID: 1603152-001 **Matrix:** AQUEOUS **Received Date:** 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/13/2016 7:50:17 PM	24121
Surr: 2-Fluorophenol	22.9	0	4.63-113		%Rec	1	3/13/2016 7:50:17 PM	24121
Surr: Phenol-d5	21.8	0	4.13-124		%Rec	1	3/13/2016 7:50:17 PM	24121
Surr: 2,4,6-Tribromophenol	41.6	0	5.14-132		%Rec	1	3/13/2016 7:50:17 PM	24121
Surr: Nitrobenzene-d5	45.9	0	9.13-140		%Rec	1	3/13/2016 7:50:17 PM	24121
Surr: 2-Fluorobiphenyl	34.7	0	10.8-132		%Rec	1	3/13/2016 7:50:17 PM	24121
Surr: 4-Terphenyl-d14	37.4	0	12.9-107		%Rec	1	3/13/2016 7:50:17 PM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	4600	9.6	100		µg/L	100	3/8/2016 12:32:06 PM	R32660
Toluene	340	0.89	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
Ethylbenzene	150	1.1	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
Methyl tert-butyl ether (MTBE)	480	2.1	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
1,2,4-Trimethylbenzene	140	1.0	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
1,3,5-Trimethylbenzene	67	1.2	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
1,2-Dichloroethane (EDC)	ND	0.53	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
Naphthalene	16	0.83	20	J	µg/L	10	3/8/2016 1:00:21 PM	R32660
1-Methylnaphthalene	6.7	2.0	40	J	µg/L	10	3/8/2016 1:00:21 PM	R32660
2-Methylnaphthalene	7.2	1.6	40	J	µg/L	10	3/8/2016 1:00:21 PM	R32660
Acetone	ND	8.8	100		µg/L	10	3/8/2016 1:00:21 PM	R32660
Bromobenzene	ND	0.80	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
Bromodichloromethane	ND	0.98	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
Bromoform	ND	1.0	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
Bromomethane	ND	7.8	30		µg/L	10	3/8/2016 1:00:21 PM	R32660
2-Butanone	ND	3.2	100		µg/L	10	3/8/2016 1:00:21 PM	R32660
Carbon disulfide	ND	6.0	100		µg/L	10	3/8/2016 1:00:21 PM	R32660
Carbon Tetrachloride	ND	1.1	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
Chlorobenzene	ND	1.0	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
Chloroethane	ND	1.5	20		µg/L	10	3/8/2016 1:00:21 PM	R32660
Chloroform	ND	0.89	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
Chloromethane	ND	2.1	30		µg/L	10	3/8/2016 1:00:21 PM	R32660
2-Chlorotoluene	ND	4.0	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
4-Chlorotoluene	ND	1.3	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
cis-1,2-DCE	ND	1.2	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
cis-1,3-Dichloropropene	ND	1.0	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
1,2-Dibromo-3-chloropropane	ND	1.5	20		µg/L	10	3/8/2016 1:00:21 PM	R32660
Dibromochloromethane	ND	0.87	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
Dibromomethane	ND	1.2	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	3/8/2016 1:00:21 PM	R32660

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-21
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 8:40:00 AM
Lab ID: 1603152-001 **Matrix:** AQUEOUS **Received Date:** 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
Dichlorodifluoromethane	ND	3.2	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
1,1-Dichloroethane	ND	1.1	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
1,1-Dichloroethene	ND	0.76	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
1,2-Dichloropropane	ND	0.47	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
1,3-Dichloropropane	ND	1.6	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
2,2-Dichloropropane	ND	1.2	20		µg/L	10	3/8/2016 1:00:21 PM	R32660
1,1-Dichloropropene	ND	1.3	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
Hexachlorobutadiene	ND	2.0	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
2-Hexanone	26	3.6	100	J	µg/L	10	3/8/2016 1:00:21 PM	R32660
Isopropylbenzene	2.7	0.98	10	J	µg/L	10	3/8/2016 1:00:21 PM	R32660
4-Isopropyltoluene	ND	1.4	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
4-Methyl-2-pentanone	50	1.5	100	J	µg/L	10	3/8/2016 1:00:21 PM	R32660
Methylene Chloride	2.0	0.63	30	J	µg/L	10	3/8/2016 1:00:21 PM	R32660
n-Butylbenzene	1.7	1.6	30	J	µg/L	10	3/8/2016 1:00:21 PM	R32660
n-Propylbenzene	6.9	1.3	10	J	µg/L	10	3/8/2016 1:00:21 PM	R32660
sec-Butylbenzene	ND	1.1	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
Styrene	ND	0.95	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
tert-Butylbenzene	ND	0.96	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
1,1,2,2-Tetrachloroethane	ND	1.1	20		µg/L	10	3/8/2016 1:00:21 PM	R32660
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
trans-1,2-DCE	ND	4.0	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
trans-1,3-Dichloropropene	ND	0.85	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
1,1,1-Trichloroethane	ND	0.63	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
1,1,2-Trichloroethane	ND	0.77	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
Trichlorofluoromethane	ND	0.88	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
1,2,3-Trichloropropane	ND	1.1	20		µg/L	10	3/8/2016 1:00:21 PM	R32660
Vinyl chloride	ND	0.63	10		µg/L	10	3/8/2016 1:00:21 PM	R32660
Xylenes, Total	1300	3.2	15		µg/L	10	3/8/2016 1:00:21 PM	R32660
Surr: 1,2-Dichloroethane-d4	99.7	0	70-130		%Rec	10	3/8/2016 1:00:21 PM	R32660
Surr: 4-Bromofluorobenzene	113	0	70-130		%Rec	10	3/8/2016 1:00:21 PM	R32660
Surr: Dibromofluoromethane	99.6	0	70-130		%Rec	10	3/8/2016 1:00:21 PM	R32660
Surr: Toluene-d8	99.9	0	70-130		%Rec	10	3/8/2016 1:00:21 PM	R32660

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-20
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 9:05:00 AM
Lab ID: 1603152-002
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	6.9	0.69	1.0		mg/L	1	3/7/2016 1:38:21 PM	24101
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/7/2016 1:38:21 PM	24101
Surr: DNOP	87.6	0	70-141		%Rec	1	3/7/2016 1:38:21 PM	24101
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	73	1.3	2.5		mg/L	50	3/4/2016 2:25:58 PM	A32596
Surr: BFB	108	0	49.5-130		%Rec	50	3/4/2016 2:25:58 PM	A32596
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Aniline	ND	9.8	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Anthracene	ND	6.6	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/13/2016 8:19:56 PM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/13/2016 8:19:56 PM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Carbazole	ND	7.2	10		µg/L	1	3/13/2016 8:19:56 PM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/13/2016 8:19:56 PM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/13/2016 8:19:56 PM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/13/2016 8:19:56 PM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/13/2016 8:19:56 PM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Chrysene	ND	6.6	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/13/2016 8:19:56 PM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/13/2016 8:19:56 PM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/13/2016 8:19:56 PM	24121

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-20
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 9:05:00 AM
Lab ID: 1603152-002 **Matrix:** AQUEOUS **Received Date:** 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/13/2016 8:19:56 PM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/13/2016 8:19:56 PM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/13/2016 8:19:56 PM	24121
2,4-Dimethylphenol	280	23	50		µg/L	5	3/16/2016 11:28:13 AM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/13/2016 8:19:56 PM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/13/2016 8:19:56 PM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/13/2016 8:19:56 PM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Fluorene	ND	7.2	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Isophorone	ND	8.1	10		µg/L	1	3/13/2016 8:19:56 PM	24121
1-Methylnaphthalene	36	6.8	10		µg/L	1	3/13/2016 8:19:56 PM	24121
2-Methylnaphthalene	23	7.0	10		µg/L	1	3/13/2016 8:19:56 PM	24121
2-Methylphenol	96	8.2	10		µg/L	1	3/13/2016 8:19:56 PM	24121
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/13/2016 8:19:56 PM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/13/2016 8:19:56 PM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/13/2016 8:19:56 PM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Naphthalene	50	5.9	10		µg/L	1	3/13/2016 8:19:56 PM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/13/2016 8:19:56 PM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/13/2016 8:19:56 PM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/13/2016 8:19:56 PM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/13/2016 8:19:56 PM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/13/2016 8:19:56 PM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Phenol	11	5.1	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Pyrene	ND	5.5	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Pyridine	ND	6.7	10		µg/L	1	3/13/2016 8:19:56 PM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/13/2016 8:19:56 PM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/13/2016 8:19:56 PM	24121

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-20
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 9:05:00 AM
Lab ID: 1603152-002 **Matrix:** AQUEOUS **Received Date:** 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/13/2016 8:19:56 PM	24121
Surr: 2-Fluorophenol	22.1	0	4.63-113		%Rec	1	3/13/2016 8:19:56 PM	24121
Surr: Phenol-d5	29.2	0	4.13-124		%Rec	1	3/13/2016 8:19:56 PM	24121
Surr: 2,4,6-Tribromophenol	45.5	0	5.14-132		%Rec	1	3/13/2016 8:19:56 PM	24121
Surr: Nitrobenzene-d5	51.7	0	9.13-140		%Rec	1	3/13/2016 8:19:56 PM	24121
Surr: 2-Fluorobiphenyl	29.2	0	10.8-132		%Rec	1	3/13/2016 8:19:56 PM	24121
Surr: 4-Terphenyl-d14	39.1	0	12.9-107		%Rec	1	3/13/2016 8:19:56 PM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	13000	48	500		µg/L	500	3/8/2016 1:28:33 PM	R32660
Toluene	470	4.5	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
Ethylbenzene	1100	5.6	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
Methyl tert-butyl ether (MTBE)	130	11	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
1,2,4-Trimethylbenzene	1200	5.2	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
1,3,5-Trimethylbenzene	380	5.8	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
1,2-Dichloroethane (EDC)	ND	2.6	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
1,2-Dibromoethane (EDB)	ND	5.6	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
Naphthalene	140	4.2	100		µg/L	50	3/8/2016 1:56:49 PM	R32660
1-Methylnaphthalene	37	10	200	J	µg/L	50	3/8/2016 1:56:49 PM	R32660
2-Methylnaphthalene	51	7.9	200	J	µg/L	50	3/8/2016 1:56:49 PM	R32660
Acetone	ND	44	500		µg/L	50	3/8/2016 1:56:49 PM	R32660
Bromobenzene	ND	4.0	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
Bromodichloromethane	ND	4.9	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
Bromoform	ND	5.1	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
Bromomethane	ND	39	150		µg/L	50	3/8/2016 1:56:49 PM	R32660
2-Butanone	ND	16	500		µg/L	50	3/8/2016 1:56:49 PM	R32660
Carbon disulfide	ND	30	500		µg/L	50	3/8/2016 1:56:49 PM	R32660
Carbon Tetrachloride	ND	5.4	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
Chlorobenzene	ND	5.2	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
Chloroethane	ND	7.3	100		µg/L	50	3/8/2016 1:56:49 PM	R32660
Chloroform	ND	4.4	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
Chloromethane	ND	11	150		µg/L	50	3/8/2016 1:56:49 PM	R32660
2-Chlorotoluene	ND	20	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
4-Chlorotoluene	ND	6.4	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
cis-1,2-DCE	ND	6.2	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
cis-1,3-Dichloropropene	ND	5.0	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
1,2-Dibromo-3-chloropropane	ND	7.7	100		µg/L	50	3/8/2016 1:56:49 PM	R32660
Dibromochloromethane	ND	4.3	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
Dibromomethane	ND	6.0	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
1,2-Dichlorobenzene	ND	20	50		µg/L	50	3/8/2016 1:56:49 PM	R32660

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Collection Date: 3/1/2016 9:05:00 AM
Lab ID: 1603152-002 **Matrix:** AQUEOUS **Received Date:** 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichlorobenzene	ND	7.2	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
1,4-Dichlorobenzene	ND	7.1	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
Dichlorodifluoromethane	ND	16	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
1,1-Dichloroethane	ND	5.4	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
1,1-Dichloroethene	ND	3.8	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
1,2-Dichloropropane	ND	2.4	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
1,3-Dichloropropane	ND	7.8	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
2,2-Dichloropropane	ND	6.0	100		µg/L	50	3/8/2016 1:56:49 PM	R32660
1,1-Dichloropropene	ND	6.7	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
Hexachlorobutadiene	ND	9.9	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
2-Hexanone	53	18	500	J	µg/L	50	3/8/2016 1:56:49 PM	R32660
Isopropylbenzene	18	4.9	50	J	µg/L	50	3/8/2016 1:56:49 PM	R32660
4-Isopropyltoluene	ND	7.0	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
4-Methyl-2-pentanone	ND	7.5	500		µg/L	50	3/8/2016 1:56:49 PM	R32660
Methylene Chloride	9.9	3.1	150	J	µg/L	50	3/8/2016 1:56:49 PM	R32660
n-Butylbenzene	11	8.0	150	J	µg/L	50	3/8/2016 1:56:49 PM	R32660
n-Propylbenzene	73	6.6	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
sec-Butylbenzene	ND	5.4	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
Styrene	ND	4.8	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
tert-Butylbenzene	ND	4.8	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
1,1,1,2-Tetrachloroethane	ND	5.6	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
1,1,2,2-Tetrachloroethane	ND	5.3	100		µg/L	50	3/8/2016 1:56:49 PM	R32660
Tetrachloroethene (PCE)	ND	7.6	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
trans-1,2-DCE	ND	20	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
trans-1,3-Dichloropropene	ND	4.2	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
1,2,3-Trichlorobenzene	ND	5.6	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
1,2,4-Trichlorobenzene	ND	6.6	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
1,1,1-Trichloroethane	ND	3.2	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
1,1,2-Trichloroethane	ND	3.8	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
Trichloroethene (TCE)	ND	8.8	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
Trichlorofluoromethane	ND	4.4	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
1,2,3-Trichloropropane	ND	5.6	100		µg/L	50	3/8/2016 1:56:49 PM	R32660
Vinyl chloride	ND	3.2	50		µg/L	50	3/8/2016 1:56:49 PM	R32660
Xylenes, Total	9200	16	75		µg/L	50	3/8/2016 1:56:49 PM	R32660
Surr: 1,2-Dichloroethane-d4	95.4	0	70-130		%Rec	50	3/8/2016 1:56:49 PM	R32660
Surr: 4-Bromofluorobenzene	109	0	70-130		%Rec	50	3/8/2016 1:56:49 PM	R32660
Surr: Dibromofluoromethane	94.5	0	70-130		%Rec	50	3/8/2016 1:56:49 PM	R32660
Surr: Toluene-d8	98.6	0	70-130		%Rec	50	3/8/2016 1:56:49 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 11:00:00 AM
Lab ID: 1603152-003
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/7/2016 2:00:12 PM	24101
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/7/2016 2:00:12 PM	24101
Surr: DNOP	92.5	0	70-141		%Rec	1	3/7/2016 2:00:12 PM	24101
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	3/4/2016 3:15:10 PM	A32596
Surr: BFB	90.2	0	49.5-130		%Rec	1	3/4/2016 3:15:10 PM	A32596
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	0.38	0.11	0.50	J	mg/L	5	3/4/2016 4:30:18 PM	R32618
Chloride	110	0.55	10		mg/L	20	3/4/2016 4:42:43 PM	R32618
Bromide	1.8	0.16	0.50		mg/L	5	3/4/2016 4:30:18 PM	R32618
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5	H	mg/L	5	3/4/2016 4:30:18 PM	R32618
Sulfate	110	0.32	2.5		mg/L	5	3/4/2016 4:30:18 PM	R32618
Nitrate+Nitrite as N	14	0.42	1.0	*	mg/L	5	3/14/2016 7:12:55 PM	R32788
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Calcium	99	0.26	1.0		mg/L	1	3/16/2016 3:33:05 PM	C32831
Magnesium	18	0.013	1.0		mg/L	1	3/16/2016 3:33:05 PM	C32831
Potassium	0.34	0.18	1.0	J	mg/L	1	3/16/2016 3:33:05 PM	C32831
Sodium	330	0.48	5.0		mg/L	5	3/18/2016 1:09:33 PM	B32891
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Toluene	ND	0.089	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Methyl tert-butyl ether (MTBE)	0.32	0.21	1.0	J	µg/L	1	3/8/2016 2:53:39 PM	R32660
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Naphthalene	ND	0.083	2.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Acetone	ND	0.88	10		µg/L	1	3/8/2016 2:53:39 PM	R32660
Bromobenzene	ND	0.080	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Bromoform	ND	0.10	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Bromomethane	ND	0.78	3.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
2-Butanone	ND	0.32	10		µg/L	1	3/8/2016 2:53:39 PM	R32660
Carbon disulfide	ND	0.60	10		µg/L	1	3/8/2016 2:53:39 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 11:00:00 AM
Lab ID: 1603152-003 **Matrix:** AQUEOUS **Received Date:** 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Chloroethane	ND	0.15	2.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Chloroform	ND	0.089	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Chloromethane	ND	0.21	3.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Dibromomethane	ND	0.12	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
2-Hexanone	ND	0.36	10		µg/L	1	3/8/2016 2:53:39 PM	R32660
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/8/2016 2:53:39 PM	R32660
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Styrene	ND	0.095	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 11:00:00 AM
Lab ID: 1603152-003
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/8/2016 2:53:39 PM	R32660
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/8/2016 2:53:39 PM	R32660
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	3/8/2016 2:53:39 PM	R32660
Surr: 4-Bromofluorobenzene	111	0	70-130		%Rec	1	3/8/2016 2:53:39 PM	R32660
Surr: Dibromofluoromethane	100	0	70-130		%Rec	1	3/8/2016 2:53:39 PM	R32660
Surr: Toluene-d8	99.2	0	70-130		%Rec	1	3/8/2016 2:53:39 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 12:00:00 PM
Lab ID: 1603152-004
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/7/2016 2:21:55 PM	24101
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/7/2016 2:21:55 PM	24101
Surr: DNOP	90.2	0	70-141		%Rec	1	3/7/2016 2:21:55 PM	24101
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.38	0.025	0.050		mg/L	1	3/4/2016 3:39:42 PM	A32596
Surr: BFB	126	0	49.5-130		%Rec	1	3/4/2016 3:39:42 PM	A32596
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	1.6	0.11	0.50		mg/L	5	3/4/2016 4:55:08 PM	R32618
Chloride	330	0.55	10		mg/L	20	3/4/2016 5:07:33 PM	R32618
Bromide	2.2	0.16	0.50		mg/L	5	3/4/2016 4:55:08 PM	R32618
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5	H	mg/L	5	3/4/2016 4:55:08 PM	R32618
Sulfate	18	0.32	2.5		mg/L	5	3/4/2016 4:55:08 PM	R32618
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	3/14/2016 8:02:33 PM	R32788
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Calcium	89	0.26	1.0		mg/L	1	3/16/2016 3:34:59 PM	C32831
Magnesium	17	0.013	1.0		mg/L	1	3/16/2016 3:34:59 PM	C32831
Potassium	0.56	0.18	1.0	J	mg/L	1	3/16/2016 3:34:59 PM	C32831
Sodium	390	0.48	5.0		mg/L	5	3/18/2016 1:11:27 PM	B32891
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Toluene	ND	0.089	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Naphthalene	ND	0.083	2.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Acetone	ND	0.88	10		µg/L	1	3/8/2016 3:21:55 PM	R32660
Bromobenzene	ND	0.080	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Bromoform	ND	0.10	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Bromomethane	ND	0.78	3.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
2-Butanone	ND	0.32	10		µg/L	1	3/8/2016 3:21:55 PM	R32660
Carbon disulfide	ND	0.60	10		µg/L	1	3/8/2016 3:21:55 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 12:00:00 PM
Lab ID: 1603152-004 **Matrix:** AQUEOUS **Received Date:** 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Chloroethane	ND	0.15	2.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Chloroform	ND	0.089	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Chloromethane	ND	0.21	3.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Dibromomethane	ND	0.12	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
2-Hexanone	ND	0.36	10		µg/L	1	3/8/2016 3:21:55 PM	R32660
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/8/2016 3:21:55 PM	R32660
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Styrene	ND	0.095	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 12:00:00 PM
Lab ID: 1603152-004
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/8/2016 3:21:55 PM	R32660
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/8/2016 3:21:55 PM	R32660
Surr: 1,2-Dichloroethane-d4	95.9	0	70-130		%Rec	1	3/8/2016 3:21:55 PM	R32660
Surr: 4-Bromofluorobenzene	108	0	70-130		%Rec	1	3/8/2016 3:21:55 PM	R32660
Surr: Dibromofluoromethane	99.7	0	70-130		%Rec	1	3/8/2016 3:21:55 PM	R32660
Surr: Toluene-d8	96.7	0	70-130		%Rec	1	3/8/2016 3:21:55 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 12:45:00 PM
Lab ID: 1603152-005 **Matrix:** AQUEOUS **Received Date:** 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/7/2016 2:43:47 PM	24101
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/7/2016 2:43:47 PM	24101
Surr: DNOP	92.3	0	70-141		%Rec	1	3/7/2016 2:43:47 PM	24101
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	3/4/2016 4:04:12 PM	A32596
Surr: BFB	89.3	0	49.5-130		%Rec	1	3/4/2016 4:04:12 PM	A32596
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	0.53	0.023	0.10		mg/L	1	3/4/2016 5:19:58 PM	R32618
Chloride	850	2.7	50		mg/L	100	3/15/2016 9:23:06 PM	R32822
Bromide	6.4	0.032	0.10		mg/L	1	3/4/2016 5:19:58 PM	R32618
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	3/4/2016 5:19:58 PM	R32618
Sulfate	350	1.3	10		mg/L	20	3/4/2016 5:32:22 PM	R32618
Nitrate+Nitrite as N	14	0.42	1.0	*	mg/L	5	3/14/2016 8:14:58 PM	R32788
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Calcium	35	0.26	1.0		mg/L	1	3/16/2016 3:36:44 PM	C32831
Magnesium	5.3	0.013	1.0		mg/L	1	3/16/2016 3:36:44 PM	C32831
Potassium	3.4	0.18	1.0		mg/L	1	3/16/2016 3:36:44 PM	C32831
Sodium	850	0.96	10		mg/L	10	3/18/2016 1:13:23 PM	B32891
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	13	0.096	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
Toluene	0.23	0.089	1.0	J	µg/L	1	3/8/2016 3:50:07 PM	R32660
Ethylbenzene	5.3	0.11	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
Methyl tert-butyl ether (MTBE)	160	0.21	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
Naphthalene	0.55	0.083	2.0	J	µg/L	1	3/8/2016 3:50:07 PM	R32660
1-Methylnaphthalene	2.1	0.20	4.0	J	µg/L	1	3/8/2016 3:50:07 PM	R32660
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
Acetone	ND	0.88	10		µg/L	1	3/8/2016 3:50:07 PM	R32660
Bromobenzene	ND	0.080	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
Bromoform	ND	0.10	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
Bromomethane	ND	0.78	3.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
2-Butanone	ND	0.32	10		µg/L	1	3/8/2016 3:50:07 PM	R32660
Carbon disulfide	ND	0.60	10		µg/L	1	3/8/2016 3:50:07 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 12:45:00 PM
Lab ID: 1603152-005 **Matrix:** AQUEOUS **Received Date:** 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
Chloroethane	ND	0.15	2.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
Chloroform	ND	0.089	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
Chloromethane	ND	0.21	3.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
Dibromomethane	ND	0.12	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
1,1-Dichloroethane	0.47	0.11	1.0	J	µg/L	1	3/8/2016 3:50:07 PM	R32660
1,1-Dichloroethene	0.16	0.076	1.0	J	µg/L	1	3/8/2016 3:50:07 PM	R32660
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
2-Hexanone	ND	0.36	10		µg/L	1	3/8/2016 3:50:07 PM	R32660
Isopropylbenzene	0.85	0.098	1.0	J	µg/L	1	3/8/2016 3:50:07 PM	R32660
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/8/2016 3:50:07 PM	R32660
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
n-Butylbenzene	0.21	0.16	3.0	J	µg/L	1	3/8/2016 3:50:07 PM	R32660
n-Propylbenzene	1.0	0.13	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
sec-Butylbenzene	0.39	0.11	1.0	J	µg/L	1	3/8/2016 3:50:07 PM	R32660
Styrene	ND	0.095	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
tert-Butylbenzene	0.11	0.096	1.0	J	µg/L	1	3/8/2016 3:50:07 PM	R32660
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: Quarterly GW Sampling
Collection Date: 3/1/2016 12:45:00 PM
Lab ID: 1603152-005
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/8/2016 3:50:07 PM	R32660
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/8/2016 3:50:07 PM	R32660
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	3/8/2016 3:50:07 PM	R32660
Surr: 4-Bromofluorobenzene	110	0	70-130		%Rec	1	3/8/2016 3:50:07 PM	R32660
Surr: Dibromofluoromethane	98.7	0	70-130		%Rec	1	3/8/2016 3:50:07 PM	R32660
Surr: Toluene-d8	99.5	0	70-130		%Rec	1	3/8/2016 3:50:07 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1603152-006
Matrix: TRIP BLANK
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	3/4/2016 4:28:43 PM	A32596
Surr: BFB	86.7	0	49.5-130		%Rec	1	3/4/2016 4:28:43 PM	A32596
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Toluene	ND	0.089	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Naphthalene	ND	0.083	2.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Acetone	ND	0.88	10		µg/L	1	3/8/2016 7:36:21 PM	R32660
Bromobenzene	ND	0.080	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Bromoform	ND	0.10	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Bromomethane	ND	0.78	3.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
2-Butanone	ND	0.32	10		µg/L	1	3/8/2016 7:36:21 PM	R32660
Carbon disulfide	ND	0.60	10		µg/L	1	3/8/2016 7:36:21 PM	R32660
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Chloroethane	ND	0.15	2.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Chloroform	ND	0.089	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Chloromethane	ND	0.21	3.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Dibromomethane	ND	0.12	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1603152-006
Matrix: TRIP BLANK
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
2-Hexanone	ND	0.36	10		µg/L	1	3/8/2016 7:36:21 PM	R32660
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/8/2016 7:36:21 PM	R32660
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Styrene	ND	0.095	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/8/2016 7:36:21 PM	R32660
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/8/2016 7:36:21 PM	R32660
Surr: 1,2-Dichloroethane-d4	92.8	0	70-130		%Rec	1	3/8/2016 7:36:21 PM	R32660
Surr: 4-Bromofluorobenzene	106	0	70-130		%Rec	1	3/8/2016 7:36:21 PM	R32660
Surr: Dibromofluoromethane	90.0	0	70-130		%Rec	1	3/8/2016 7:36:21 PM	R32660
Surr: Toluene-d8	95.6	0	70-130		%Rec	1	3/8/2016 7:36:21 PM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603152**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB-C**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006189** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Potassium	ND	1.0								

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006190** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	50	1.0	50.00	0	101	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Potassium	49	1.0	50.00	0	97.4	85	115			

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006191** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.53	1.0	0.5000	0	107	50	150			J
Magnesium	0.52	1.0	0.5000	0	104	50	150			J
Potassium	0.55	1.0	0.5000	0	110	50	150			J

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008295** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008299** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	50	1.0	50.00	0	99.0	85	115			

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603152**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**LLLCS-B**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**B32891**		RunNo:	**32891**					
Prep Date:		Analysis Date:	**3/18/2016**		SeqNo:	**1008300**	Units:	**mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium		0.54	1.0	0.5000	0	108	50	150			J

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603152**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32618**	RunNo: **32618**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997926** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32618**	RunNo: **32618**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997927** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	101	90	110			
Chloride	4.7	0.50	5.000	0	94.9	90	110			
Bromide	2.4	0.10	2.500	0	96.2	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.5	90	110			
Sulfate	9.7	0.50	10.00	0	97.3	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32788**	RunNo: **32788**
Prep Date:	Analysis Date: **3/14/2016**	SeqNo: **1004671** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32788**	RunNo: **32788**
Prep Date:	Analysis Date: **3/14/2016**	SeqNo: **1004672** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.3	0.20	3.500	0	94.6	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32822**	RunNo: **32822**
Prep Date:	Analysis Date: **3/15/2016**	SeqNo: **1005748** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1603152**
04-Apr-16

Client: Western Refining Southwest, Gallup
Project: Quarterly GW Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R32822**	RunNo: **32822**							
Prep Date:	Analysis Date: **3/15/2016**	SeqNo: **1005749**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.7	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603152**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS-24101**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **24101**	RunNo: **32603**
Prep Date: **3/7/2016**	Analysis Date: **3/7/2016**	SeqNo: **997914** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.9	1.0	5.000	0	118	71.3	139			
Surr: DNOP	0.50		0.5000		99.7	70	141			

Sample ID **MB-24101**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **24101**	RunNo: **32603**
Prep Date: **3/7/2016**	Analysis Date: **3/7/2016**	SeqNo: **997915** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.91		1.000		90.8	70	141			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603152**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBW**	Batch ID:	**A32596**	RunNo:	**32596**					
Prep Date:		Analysis Date:	**3/4/2016**	SeqNo:	**997207**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		95.0	49.5	130			

Sample ID	**2.5UG GRO LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSW**	Batch ID:	**A32596**	RunNo:	**32596**					
Prep Date:		Analysis Date:	**3/4/2016**	SeqNo:	**997208**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	103	80	120			
Surr: BFB	21		20.00		106	49.5	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603152**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32660**	RunNo: **32660**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999254** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603152**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32660**	RunNo: **32660**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999254** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	0.19	3.0								J
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		109	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.2	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32660**	RunNo: **32660**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999255** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	70	130			
Toluene	22	1.0	20.00	0	111	70	130			
Chlorobenzene	22	1.0	20.00	0	109	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603152**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32660**	RunNo: **32660**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999255** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21	1.0	20.00	0	105	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	98.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.6	70	130			
Surr: Toluene-d8	10		10.00		99.7	70	130			

Sample ID **1603152-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-21**	Batch ID: **R32660**	RunNo: **32660**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999260** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	5000	10	200.0	4993	19.4	70	130			ES
Toluene	520	10	200.0	341.6	89.1	70	130			
Chlorobenzene	210	10	200.0	0	103	70	130			
1,1-Dichloroethene	200	10	200.0	0	98.6	70	130			
Trichloroethene (TCE)	190	10	200.0	0	96.1	70	130			
Surr: 1,2-Dichloroethane-d4	96		100.0		96.1	70	130			
Surr: 4-Bromofluorobenzene	110		100.0		111	70	130			
Surr: Dibromofluoromethane	97		100.0		97.4	70	130			
Surr: Toluene-d8	100		100.0		103	70	130			

Sample ID **1603152-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-21**	Batch ID: **R32660**	RunNo: **32660**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999261** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	4600	10	200.0	4993	-192	70	130	8.79	20	ES
Toluene	500	10	200.0	341.6	81.5	70	130	2.97	20	
Chlorobenzene	200	10	200.0	0	102	70	130	0.973	20	
1,1-Dichloroethene	180	10	200.0	0	90.2	70	130	8.97	20	
Trichloroethene (TCE)	170	10	200.0	0	84.3	70	130	13.1	20	
Surr: 1,2-Dichloroethane-d4	91		100.0		90.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	110		100.0		109	70	130	0	0	
Surr: Dibromofluoromethane	90		100.0		89.8	70	130	0	0	
Surr: Toluene-d8	98		100.0		98.4	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603152**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **mb-24121**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003941** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603152**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **mb-24121**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003941** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	250		200.0		123	4.63	113			S
Surr: Phenol-d5	260		200.0		131	4.13	124			S
Surr: 2,4,6-Tribromophenol	230		200.0		116	5.14	132			
Surr: Nitrobenzene-d5	130		100.0		128	9.13	140			
Surr: 2-Fluorobiphenyl	120		100.0		118	10.8	132			
Surr: 4-Terphenyl-d14	130		100.0		131	12.9	107			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603152**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **lcs-24121**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003943** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	100	10	100.0	0	104	40.2	107			
4-Chloro-3-methylphenol	250	10	200.0	0	125	48.2	107			S
2-Chlorophenol	220	10	200.0	0	110	42.5	106			S
1,4-Dichlorobenzene	110	10	100.0	0	109	31.6	111			
2,4-Dinitrotoluene	78	10	100.0	0	78.1	33.6	86.5			
N-Nitrosodi-n-propylamine	110	10	100.0	0	108	44	106			S
4-Nitrophenol	180	10	200.0	0	88.4	25.5	109			
Pentachlorophenol	170	20	200.0	0	84.6	38.8	97.8			
Phenol	210	10	200.0	0	107	22.7	116			
Pyrene	100	10	100.0	0	103	29.3	138			
1,2,4-Trichlorobenzene	110	10	100.0	0	115	35.3	123			
Surr: 2-Fluorophenol	180		200.0		88.4	4.63	113			
Surr: Phenol-d5	200		200.0		101	4.13	124			
Surr: 2,4,6-Tribromophenol	230		200.0		113	5.14	132			
Surr: Nitrobenzene-d5	96		100.0		96.0	9.13	140			
Surr: 2-Fluorobiphenyl	90		100.0		90.5	10.8	132			
Surr: 4-Terphenyl-d14	99		100.0		99.4	12.9	107			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1603152 RcptNo: 1

Received by/date: 03/02/16

Logged By: Ashley Gallegos 3/2/2016 4:16:00 PM

Completed By: Ashley Gallegos 3/3/2016 9:14:40 AM

Reviewed By: 03/03/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and DNG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 6 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? NO
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: AS/3/16

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: ____ Date: ____

By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: ____

Client Instructions: ____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: EASTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 2 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard / [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1603152
2/16	0840	WATER	MKTF-21	40 mL VOA-6	HCL	-001
				1 LITER AMBER-1	NEAT	
				250 mL AMBER-1	NEAT	
2/16	0905	WATER	MKTF-20	40 mL VOA-6	HCL	-002
				1 LITER AMBER-1	NEAT	
				250 mL AMBER-1	NEAT	
2/16	1100	WATER	NAPIS-1	40 mL VOA-6	HCL	-003
				250 mL AMBER-1	NEAT	
				125 mL PLASTIC-1	HNO_3	
				125 mL PLASTIC-1	H_2SO_4	
				500 mL PLASTIC-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS / ANIONS				Air Bubbles (Y or N)
		✓							✓						
										✓					
		✓													
		✓							✓						
										✓					
		✓													
		✓							✓						
		✓													
											✓				
											✓				
											✓				

Date:	Time:	Relinquished by:	Received by:	Date	Time
2/16	0725			2/12/16	1315
2/16				02/12/16	1616

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard ☒ Level 4 (Full Validation)
Accreditation: ☒ NELAP ☐ Other
EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations / Anions					Air Bubbles (Y or N)
3/16	1200	WATER	NAPIS-2	40 mL VOA-6	HCL	1603152-004			✓							✓							
				250 mL AMBER-1	NEAT				✓														
				125 mL PLASTIC-1	HNO_3													✓					
				125 mL PLASTIC-1	H_2SO_4													✓					
				500 mL PLASTIC-1	NEAT													✓					
3/16	1245	WATER	NAPIS-23 AF	40 mL VOA-6	HCL	-005			✓							✓							
				250 mL PLASTIC-1	NEAT				✓														
				125 mL PLASTIC-1	HNO_3													✓					
				125 mL PLASTIC-1	H_2SO_4													✓					
				500 mL PLASTIC-1	NEAT													✓					
—	—	WATER	TRIP BLANK	40 mL VOA-6	HCL	-010										✓							

Date	Time	Relinquished by:	Received by:	Date	Time
3/16	0725			3/3/16	1315
3/4/16	1616			03/02/16	1616

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 31, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: Quarterly GW Sampling OrderNo.: 1602A10

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 2/23/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: Quarterly GW Sampling
Collection Date: 2/22/2016 1:10:00 PM
Lab ID: 1602A10-001
Matrix: AQUEOUS
Received Date: 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	1.5	0.69	1.0		mg/L	1	2/26/2016 9:49:41 AM	23932
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	2/26/2016 9:49:41 AM	23932
Surr: DNOP	141	0	70-141		%Rec	1	2/26/2016 9:49:41 AM	23932
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	29	0.25	0.50		mg/L	10	2/25/2016 12:28:17 PM	R32416
Surr: BFB	122	0	49.5-130		%Rec	10	2/25/2016 12:28:17 PM	R32416
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.058	0.023	0.10	J	mg/L	1	2/26/2016 12:37:44 AM	R32424
Chloride	650	1.4	25		mg/L	50	3/1/2016 10:27:42 PM	A32498
Bromide	1.0	0.032	0.10		mg/L	1	2/26/2016 12:37:44 AM	R32424
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	2/26/2016 12:37:44 AM	R32424
Sulfate	50	1.3	10		mg/L	20	2/26/2016 12:50:09 AM	R32424
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	2/29/2016 1:07:06 PM	R32480
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.25	0.0013	0.0020		mg/L	1	3/1/2016 11:43:57 AM	B32475
Cadmium	ND	0.00075	0.0020		mg/L	1	3/1/2016 11:43:57 AM	B32475
Calcium	130	1.3	5.0		mg/L	5	3/1/2016 11:47:45 AM	B32475
Chromium	ND	0.0018	0.0060		mg/L	1	3/1/2016 11:43:57 AM	B32475
Copper	ND	0.0040	0.0060		mg/L	1	3/1/2016 11:43:57 AM	B32475
Iron	0.21	0.0091	0.020		mg/L	1	3/1/2016 11:43:57 AM	B32475
Magnesium	20	0.013	1.0		mg/L	1	3/1/2016 11:43:57 AM	B32475
Manganese	1.9	0.0016	0.010	*	mg/L	5	3/1/2016 11:47:45 AM	B32475
Potassium	2.6	0.18	1.0		mg/L	1	3/1/2016 11:43:57 AM	B32475
Silver	ND	0.0028	0.0050		mg/L	1	3/1/2016 11:43:57 AM	B32475
Sodium	500	0.48	5.0		mg/L	5	3/1/2016 11:47:45 AM	B32475
Zinc	0.012	0.0028	0.010		mg/L	1	3/2/2016 3:31:43 PM	A32539
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.51	0.0011	0.0020		mg/L	1	3/2/2016 2:39:22 PM	23939
Cadmium	ND	0.00062	0.0020		mg/L	1	3/1/2016 11:18:15 AM	23939
Chromium	0.0059	0.0022	0.0060	J	mg/L	1	3/1/2016 11:18:15 AM	23939
Copper	0.0086	0.0051	0.0060		mg/L	1	3/1/2016 11:18:15 AM	23939
Iron	5.2	0.072	0.20	*	mg/L	10	3/2/2016 2:59:59 PM	23939
Manganese	2.3	0.0076	0.010	*	mg/L	5	3/2/2016 2:54:19 PM	23939
Silver	ND	0.0021	0.0050		mg/L	1	3/2/2016 2:39:22 PM	23939
Zinc	0.018	0.0039	0.010		mg/L	1	3/7/2016 1:38:03 PM	24075
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0026	0.000065	0.0010		mg/L	1	3/8/2016 3:34:14 PM	C32643

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: Quarterly GW Sampling
Collection Date: 2/22/2016 1:10:00 PM
Lab ID: 1602A10-001
Matrix: AQUEOUS
Received Date: 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.0012	0.000026	0.00050		mg/L	1	3/8/2016 3:34:14 PM	C32643
Selenium	0.0031	0.00097	0.0050	J	mg/L	5	3/10/2016 4:27:44 PM	B32730
Uranium	0.023	0.0000048	0.00050		mg/L	1	3/8/2016 3:34:14 PM	C32643
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0028	0.00029	0.0010		mg/L	1	3/9/2016 2:17:00 PM	24075
Lead	0.013	0.000047	0.00050		mg/L	1	3/9/2016 2:17:00 PM	24075
Selenium	0.0028	0.00062	0.0050	J	mg/L	5	3/9/2016 3:23:20 PM	24075
Uranium	0.024	0.000025	0.0025		mg/L	5	3/9/2016 3:23:20 PM	24075
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00013	0.000053	0.00020	J	mg/L	1	2/26/2016 12:31:44 PM	23952
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Acenaphthylene	ND	7.2	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Aniline	ND	9.8	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Anthracene	ND	6.6	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Azobenzene	ND	9.3	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Benzoic acid	ND	9.8	20		µg/L	1	3/2/2016 1:12:26 PM	23981
Benzyl alcohol	ND	8.0	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/2/2016 1:12:26 PM	23981
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Carbazole	ND	7.2	10		µg/L	1	3/2/2016 1:12:26 PM	23981
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/2/2016 1:12:26 PM	23981
4-Chloroaniline	ND	7.1	10		µg/L	1	3/2/2016 1:12:26 PM	23981
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/2/2016 1:12:26 PM	23981
2-Chlorophenol	ND	8.7	10		µg/L	1	3/2/2016 1:12:26 PM	23981
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Chrysene	ND	6.6	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/2/2016 1:12:26 PM	23981

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: Quarterly GW Sampling
Collection Date: 2/22/2016 1:10:00 PM
Lab ID: 1602A10-001
Matrix: AQUEOUS
Received Date: 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Dibenzofuran	ND	8.6	10		µg/L	1	3/2/2016 1:12:26 PM	23981
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/2/2016 1:12:26 PM	23981
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/2/2016 1:12:26 PM	23981
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/2/2016 1:12:26 PM	23981
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Diethyl phthalate	ND	8.2	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/2/2016 1:12:26 PM	23981
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/2/2016 1:12:26 PM	23981
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/2/2016 1:12:26 PM	23981
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/2/2016 1:12:26 PM	23981
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/2/2016 1:12:26 PM	23981
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/2/2016 1:12:26 PM	23981
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Fluoranthene	ND	6.1	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Fluorene	ND	7.2	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Hexachloroethane	ND	5.8	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Isophorone	ND	8.1	10		µg/L	1	3/2/2016 1:12:26 PM	23981
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/2/2016 1:12:26 PM	23981
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/2/2016 1:12:26 PM	23981
2-Methylphenol	ND	8.2	10		µg/L	1	3/2/2016 1:12:26 PM	23981
3+4-Methylphenol	12	7.1	10		µg/L	1	3/2/2016 1:12:26 PM	23981
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/2/2016 1:12:26 PM	23981
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/2/2016 1:12:26 PM	23981
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Naphthalene	7.2	5.9	10	J	µg/L	1	3/2/2016 1:12:26 PM	23981
2-Nitroaniline	ND	9.0	10		µg/L	1	3/2/2016 1:12:26 PM	23981
3-Nitroaniline	ND	8.8	10		µg/L	1	3/2/2016 1:12:26 PM	23981
4-Nitroaniline	ND	9.1	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Nitrobenzene	ND	7.8	10		µg/L	1	3/2/2016 1:12:26 PM	23981
2-Nitrophenol	ND	7.6	10		µg/L	1	3/2/2016 1:12:26 PM	23981
4-Nitrophenol	ND	6.7	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Pentachlorophenol	ND	7.6	20		µg/L	1	3/2/2016 1:12:26 PM	23981
Phenanthrene	ND	6.8	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Phenol	ND	5.1	10		µg/L	1	3/2/2016 1:12:26 PM	23981

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: Quarterly GW Sampling
Collection Date: 2/22/2016 1:10:00 PM
Lab ID: 1602A10-001 **Matrix:** AQUEOUS **Received Date:** 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Pyridine	ND	6.7	10		µg/L	1	3/2/2016 1:12:26 PM	23981
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/2/2016 1:12:26 PM	23981
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/2/2016 1:12:26 PM	23981
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/2/2016 1:12:26 PM	23981
Surr: 2-Fluorophenol	38.3	0	4.63-113		%Rec	1	3/2/2016 1:12:26 PM	23981
Surr: Phenol-d5	28.2	0	4.13-124		%Rec	1	3/2/2016 1:12:26 PM	23981
Surr: 2,4,6-Tribromophenol	59.0	0	5.14-132		%Rec	1	3/2/2016 1:12:26 PM	23981
Surr: Nitrobenzene-d5	59.6	0	9.13-140		%Rec	1	3/2/2016 1:12:26 PM	23981
Surr: 2-Fluorobiphenyl	63.3	0	10.8-132		%Rec	1	3/2/2016 1:12:26 PM	23981
Surr: 4-Terphenyl-d14	96.5	0	12.9-107		%Rec	1	3/2/2016 1:12:26 PM	23981
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	5600	19	200		µg/L	200	2/25/2016 4:42:31 PM	R32418
Toluene	27	1.8	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
Ethylbenzene	310	2.2	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
Methyl tert-butyl ether (MTBE)	210	4.2	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
1,2,4-Trimethylbenzene	7.2	2.1	20	J	µg/L	20	2/25/2016 5:10:54 PM	R32418
1,3,5-Trimethylbenzene	ND	2.3	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
1,2-Dichloroethane (EDC)	8.1	1.1	20	J	µg/L	20	2/25/2016 5:10:54 PM	R32418
1,2-Dibromoethane (EDB)	ND	2.2	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
Naphthalene	14	1.7	40	J	µg/L	20	2/25/2016 5:10:54 PM	R32418
1-Methylnaphthalene	11	4.1	80	J	µg/L	20	2/25/2016 5:10:54 PM	R32418
2-Methylnaphthalene	ND	3.2	80		µg/L	20	2/25/2016 5:10:54 PM	R32418
Acetone	ND	18	200		µg/L	20	2/25/2016 5:10:54 PM	R32418
Bromobenzene	ND	1.6	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
Bromodichloromethane	ND	2.0	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
Bromoform	ND	2.0	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
Bromomethane	ND	16	60		µg/L	20	2/25/2016 5:10:54 PM	R32418
2-Butanone	ND	6.4	200		µg/L	20	2/25/2016 5:10:54 PM	R32418
Carbon disulfide	ND	12	200		µg/L	20	2/25/2016 5:10:54 PM	R32418
Carbon Tetrachloride	ND	2.2	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
Chlorobenzene	ND	2.1	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
Chloroethane	ND	2.9	40		µg/L	20	2/25/2016 5:10:54 PM	R32418
Chloroform	ND	1.8	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
Chloromethane	ND	4.3	60		µg/L	20	2/25/2016 5:10:54 PM	R32418
2-Chlorotoluene	ND	8.0	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
4-Chlorotoluene	ND	2.6	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
cis-1,2-DCE	32	2.5	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
cis-1,3-Dichloropropene	ND	2.0	20		µg/L	20	2/25/2016 5:10:54 PM	R32418

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: Quarterly GW Sampling
Collection Date: 2/22/2016 1:10:00 PM
Lab ID: 1602A10-001 **Matrix:** AQUEOUS **Received Date:** 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dibromo-3-chloropropane	ND	3.1	40		µg/L	20	2/25/2016 5:10:54 PM	R32418
Dibromochloromethane	ND	1.7	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
Dibromomethane	ND	2.4	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
1,2-Dichlorobenzene	ND	8.0	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
1,3-Dichlorobenzene	ND	2.9	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
1,4-Dichlorobenzene	ND	2.9	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
Dichlorodifluoromethane	ND	6.5	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
1,1-Dichloroethane	93	2.2	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
1,1-Dichloroethene	51	1.5	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
1,2-Dichloropropane	ND	0.94	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
1,3-Dichloropropane	ND	3.1	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
2,2-Dichloropropane	ND	2.4	40		µg/L	20	2/25/2016 5:10:54 PM	R32418
1,1-Dichloropropene	ND	2.7	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
Hexachlorobutadiene	ND	4.0	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
2-Hexanone	ND	7.2	200		µg/L	20	2/25/2016 5:10:54 PM	R32418
Isopropylbenzene	37	2.0	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
4-Isopropyltoluene	ND	2.8	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
4-Methyl-2-pentanone	ND	3.0	200		µg/L	20	2/25/2016 5:10:54 PM	R32418
Methylene Chloride	ND	1.3	60		µg/L	20	2/25/2016 5:10:54 PM	R32418
n-Butylbenzene	14	3.2	60	J	µg/L	20	2/25/2016 5:10:54 PM	R32418
n-Propylbenzene	94	2.6	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
sec-Butylbenzene	ND	2.2	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
Styrene	ND	1.9	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
tert-Butylbenzene	ND	1.9	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
1,1,1,2-Tetrachloroethane	ND	2.2	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
1,1,2,2-Tetrachloroethane	ND	2.1	40		µg/L	20	2/25/2016 5:10:54 PM	R32418
Tetrachloroethene (PCE)	ND	3.0	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
trans-1,2-DCE	ND	8.0	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
trans-1,3-Dichloropropene	ND	1.7	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
1,2,3-Trichlorobenzene	ND	2.3	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
1,2,4-Trichlorobenzene	ND	2.7	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
1,1,1-Trichloroethane	ND	1.3	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
1,1,2-Trichloroethane	ND	1.5	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
Trichloroethene (TCE)	ND	3.5	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
Trichlorofluoromethane	ND	1.8	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
1,2,3-Trichloropropane	ND	2.2	40		µg/L	20	2/25/2016 5:10:54 PM	R32418
Vinyl chloride	ND	1.3	20		µg/L	20	2/25/2016 5:10:54 PM	R32418
Xylenes, Total	8.8	6.5	30	J	µg/L	20	2/25/2016 5:10:54 PM	R32418
Surr: 1,2-Dichloroethane-d4	94.0	0	70-130		%Rec	20	2/25/2016 5:10:54 PM	R32418

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: Quarterly GW Sampling
Collection Date: 2/22/2016 1:10:00 PM
Lab ID: 1602A10-001
Matrix: AQUEOUS
Received Date: 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 4-Bromofluorobenzene	104	0	70-130		%Rec	20	2/25/2016 5:10:54 PM	R32418
Surr: Dibromofluoromethane	96.2	0	70-130		%Rec	20	2/25/2016 5:10:54 PM	R32418
Surr: Toluene-d8	105	0	70-130		%Rec	20	2/25/2016 5:10:54 PM	R32418

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-26
Project: Quarterly GW Sampling
Collection Date: 2/22/2016 2:35:00 PM
Lab ID: 1602A10-002
Matrix: AQUEOUS
Received Date: 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	2/25/2016 6:08:24 PM	23932
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	2/25/2016 6:08:24 PM	23932
Surr: DNOP	119	0	70-141		%Rec	1	2/25/2016 6:08:24 PM	23932
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	1.5	0.13	0.25		mg/L	5	2/25/2016 2:07:25 PM	R32416
Surr: BFB	89.6	0	49.5-130		%Rec	5	2/25/2016 2:07:25 PM	R32416
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.20	0.023	0.10		mg/L	1	2/26/2016 1:27:23 AM	R32424
Chloride	2000	5.5	100		mg/L	200	3/1/2016 10:40:06 PM	A32498
Bromide	2.9	0.65	2.0		mg/L	20	2/26/2016 1:39:47 AM	R32424
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	2/26/2016 1:27:23 AM	R32424
Sulfate	210	1.3	10		mg/L	20	2/26/2016 1:39:47 AM	R32424
Nitrate+Nitrite as N	11	0.84	2.0	*	mg/L	10	3/1/2016 11:04:55 PM	A32498
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.12	0.0013	0.0020		mg/L	1	3/1/2016 11:49:43 AM	B32475
Cadmium	ND	0.00075	0.0020		mg/L	1	3/1/2016 11:49:43 AM	B32475
Calcium	110	1.3	5.0		mg/L	5	3/1/2016 11:53:42 AM	B32475
Chromium	ND	0.0018	0.0060		mg/L	1	3/1/2016 11:49:43 AM	B32475
Copper	ND	0.0040	0.0060		mg/L	1	3/1/2016 11:49:43 AM	B32475
Iron	0.38	0.0091	0.020	*	mg/L	1	3/1/2016 11:49:43 AM	B32475
Magnesium	17	0.013	1.0		mg/L	1	3/1/2016 11:49:43 AM	B32475
Manganese	0.91	0.00032	0.0020	*	mg/L	1	3/1/2016 11:49:43 AM	B32475
Potassium	2.2	0.18	1.0		mg/L	1	3/1/2016 11:49:43 AM	B32475
Silver	ND	0.0028	0.0050		mg/L	1	3/1/2016 11:49:43 AM	B32475
Sodium	680	0.96	10		mg/L	10	3/2/2016 3:35:28 PM	A32539
Zinc	0.048	0.0028	0.010		mg/L	1	3/2/2016 3:33:35 PM	A32539
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.23	0.0011	0.0020		mg/L	1	3/1/2016 11:23:33 AM	23939
Cadmium	ND	0.00062	0.0020		mg/L	1	3/1/2016 11:23:33 AM	23939
Chromium	0.0034	0.0022	0.0060	J	mg/L	1	3/1/2016 11:23:33 AM	23939
Copper	0.011	0.0051	0.0060		mg/L	1	3/1/2016 11:23:33 AM	23939
Iron	6.4	0.072	0.20	*	mg/L	10	3/2/2016 3:03:44 PM	23939
Manganese	1.1	0.015	0.020	*	mg/L	10	3/2/2016 3:03:44 PM	23939
Silver	ND	0.0021	0.0050		mg/L	1	3/1/2016 11:23:33 AM	23939
Zinc	0.029	0.0039	0.010		mg/L	1	3/7/2016 1:41:41 PM	24075
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0024	0.000065	0.0010		mg/L	1	3/8/2016 3:37:17 PM	C32643

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-26
Project: Quarterly GW Sampling
Collection Date: 2/22/2016 2:35:00 PM
Lab ID: 1602A10-002
Matrix: AQUEOUS
Received Date: 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.0013	0.000026	0.00050		mg/L	1	3/8/2016 3:37:17 PM	C32643
Selenium	0.0031	0.00097	0.0050	J	mg/L	5	3/10/2016 4:30:47 PM	B32730
Uranium	0.042	0.000024	0.0025	*	mg/L	5	3/10/2016 4:30:47 PM	B32730
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0025	0.00029	0.0010		mg/L	1	3/9/2016 2:20:01 PM	24075
Lead	0.0090	0.000047	0.00050		mg/L	1	3/9/2016 2:20:01 PM	24075
Selenium	0.0029	0.00062	0.0050	J	mg/L	5	3/9/2016 3:26:21 PM	24075
Uranium	0.089	0.000025	0.0025	*	mg/L	5	3/9/2016 3:26:21 PM	24075
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00014	0.000053	0.00020	J	mg/L	1	2/26/2016 12:37:51 PM	23952
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Acenaphthylene	ND	7.2	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Aniline	ND	9.8	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Anthracene	ND	6.6	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Azobenzene	ND	9.3	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Benzoic acid	ND	9.8	20		µg/L	1	3/2/2016 1:42:31 PM	23981
Benzyl alcohol	ND	8.0	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/2/2016 1:42:31 PM	23981
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Carbazole	ND	7.2	10		µg/L	1	3/2/2016 1:42:31 PM	23981
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/2/2016 1:42:31 PM	23981
4-Chloroaniline	ND	7.1	10		µg/L	1	3/2/2016 1:42:31 PM	23981
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/2/2016 1:42:31 PM	23981
2-Chlorophenol	ND	8.7	10		µg/L	1	3/2/2016 1:42:31 PM	23981
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Chrysene	ND	6.6	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/2/2016 1:42:31 PM	23981

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Matrix: AQUEOUS
Received Date: 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Dibenzofuran	ND	8.6	10		µg/L	1	3/2/2016 1:42:31 PM	23981
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/2/2016 1:42:31 PM	23981
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/2/2016 1:42:31 PM	23981
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/2/2016 1:42:31 PM	23981
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Diethyl phthalate	ND	8.2	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/2/2016 1:42:31 PM	23981
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/2/2016 1:42:31 PM	23981
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/2/2016 1:42:31 PM	23981
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/2/2016 1:42:31 PM	23981
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/2/2016 1:42:31 PM	23981
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/2/2016 1:42:31 PM	23981
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Fluoranthene	ND	6.1	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Fluorene	ND	7.2	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Hexachloroethane	ND	5.8	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Isophorone	ND	8.1	10		µg/L	1	3/2/2016 1:42:31 PM	23981
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/2/2016 1:42:31 PM	23981
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/2/2016 1:42:31 PM	23981
2-Methylphenol	ND	8.2	10		µg/L	1	3/2/2016 1:42:31 PM	23981
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/2/2016 1:42:31 PM	23981
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/2/2016 1:42:31 PM	23981
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/2/2016 1:42:31 PM	23981
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Naphthalene	ND	5.9	10		µg/L	1	3/2/2016 1:42:31 PM	23981
2-Nitroaniline	ND	9.0	10		µg/L	1	3/2/2016 1:42:31 PM	23981
3-Nitroaniline	ND	8.8	10		µg/L	1	3/2/2016 1:42:31 PM	23981
4-Nitroaniline	ND	9.1	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Nitrobenzene	ND	7.8	10		µg/L	1	3/2/2016 1:42:31 PM	23981
2-Nitrophenol	ND	7.6	10		µg/L	1	3/2/2016 1:42:31 PM	23981
4-Nitrophenol	ND	6.7	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Pentachlorophenol	ND	7.6	20		µg/L	1	3/2/2016 1:42:31 PM	23981
Phenanthrene	ND	6.8	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Phenol	ND	5.1	10		µg/L	1	3/2/2016 1:42:31 PM	23981

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Project: Quarterly GW Sampling
Collection Date: 2/22/2016 2:35:00 PM
Lab ID: 1602A10-002 **Matrix:** AQUEOUS **Received Date:** 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Pyridine	ND	6.7	10		µg/L	1	3/2/2016 1:42:31 PM	23981
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/2/2016 1:42:31 PM	23981
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/2/2016 1:42:31 PM	23981
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/2/2016 1:42:31 PM	23981
Surr: 2-Fluorophenol	43.7	0	4.63-113		%Rec	1	3/2/2016 1:42:31 PM	23981
Surr: Phenol-d5	33.5	0	4.13-124		%Rec	1	3/2/2016 1:42:31 PM	23981
Surr: 2,4,6-Tribromophenol	46.9	0	5.14-132		%Rec	1	3/2/2016 1:42:31 PM	23981
Surr: Nitrobenzene-d5	74.2	0	9.13-140		%Rec	1	3/2/2016 1:42:31 PM	23981
Surr: 2-Fluorobiphenyl	76.9	0	10.8-132		%Rec	1	3/2/2016 1:42:31 PM	23981
Surr: 4-Terphenyl-d14	109	0	12.9-107	S	%Rec	1	3/2/2016 1:42:31 PM	23981
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	150	0.48	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
Toluene	1.4	0.45	5.0	J	µg/L	5	2/25/2016 6:07:31 PM	R32418
Ethylbenzene	ND	0.56	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
Methyl tert-butyl ether (MTBE)	55	1.1	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
1,2-Dichloroethane (EDC)	11	0.26	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
Naphthalene	ND	0.42	10		µg/L	5	2/25/2016 6:07:31 PM	R32418
1-Methylnaphthalene	ND	1.0	20		µg/L	5	2/25/2016 6:07:31 PM	R32418
2-Methylnaphthalene	ND	0.79	20		µg/L	5	2/25/2016 6:07:31 PM	R32418
Acetone	ND	4.4	50		µg/L	5	2/25/2016 6:07:31 PM	R32418
Bromobenzene	ND	0.40	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
Bromodichloromethane	ND	0.49	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
Bromoform	ND	0.51	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
Bromomethane	ND	3.9	15		µg/L	5	2/25/2016 6:07:31 PM	R32418
2-Butanone	ND	1.6	50		µg/L	5	2/25/2016 6:07:31 PM	R32418
Carbon disulfide	ND	3.0	50		µg/L	5	2/25/2016 6:07:31 PM	R32418
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
Chlorobenzene	ND	0.52	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
Chloroethane	ND	0.73	10		µg/L	5	2/25/2016 6:07:31 PM	R32418
Chloroform	ND	0.44	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
Chloromethane	ND	1.1	15		µg/L	5	2/25/2016 6:07:31 PM	R32418
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
cis-1,2-DCE	3.3	0.62	5.0	J	µg/L	5	2/25/2016 6:07:31 PM	R32418
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	2/25/2016 6:07:31 PM	R32418
Dibromochloromethane	ND	0.43	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
Dibromomethane	ND	0.60	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
1,1-Dichloroethane	55	0.54	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
1,1-Dichloroethene	61	0.38	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
2,2-Dichloropropane	ND	0.60	10		µg/L	5	2/25/2016 6:07:31 PM	R32418
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
2-Hexanone	ND	1.8	50		µg/L	5	2/25/2016 6:07:31 PM	R32418
Isopropylbenzene	1.2	0.49	5.0	J	µg/L	5	2/25/2016 6:07:31 PM	R32418
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	2/25/2016 6:07:31 PM	R32418
Methylene Chloride	1.1	0.31	15	J	µg/L	5	2/25/2016 6:07:31 PM	R32418
n-Butylbenzene	ND	0.80	15		µg/L	5	2/25/2016 6:07:31 PM	R32418
n-Propylbenzene	ND	0.66	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
Styrene	ND	0.48	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	2/25/2016 6:07:31 PM	R32418
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
1,1,2-Trichloroethane	1.3	0.38	5.0	J	µg/L	5	2/25/2016 6:07:31 PM	R32418
Trichloroethene (TCE)	2.3	0.88	5.0	J	µg/L	5	2/25/2016 6:07:31 PM	R32418
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	2/25/2016 6:07:31 PM	R32418
Vinyl chloride	7.1	0.32	5.0		µg/L	5	2/25/2016 6:07:31 PM	R32418
Xylenes, Total	ND	1.6	7.5		µg/L	5	2/25/2016 6:07:31 PM	R32418
Surr: 1,2-Dichloroethane-d4	93.9	0	70-130		%Rec	5	2/25/2016 6:07:31 PM	R32418

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-26
Project: Quarterly GW Sampling
Collection Date: 2/22/2016 2:35:00 PM
Lab ID: 1602A10-002
Matrix: AQUEOUS
Received Date: 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 4-Bromofluorobenzene	111	0	70-130		%Rec	5	2/25/2016 6:07:31 PM	R32418
Surr: Dibromofluoromethane	95.5	0	70-130		%Rec	5	2/25/2016 6:07:31 PM	R32418
Surr: Toluene-d8	104	0	70-130		%Rec	5	2/25/2016 6:07:31 PM	R32418

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1602A10-003
Matrix: TRIP BLANK
Received Date: 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	2/25/2016 2:56:35 PM	R32416
Surr: BFB	85.8	0	49.5-130		%Rec	1	2/25/2016 2:56:35 PM	R32416
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Toluene	ND	0.089	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Ethylbenzene	ND	0.11	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Naphthalene	ND	0.083	2.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Acetone	ND	0.88	10		µg/L	1	2/25/2016 6:35:53 PM	R32418
Bromobenzene	ND	0.080	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Bromodichloromethane	ND	0.098	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Bromoform	ND	0.10	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Bromomethane	ND	0.78	3.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
2-Butanone	ND	0.32	10		µg/L	1	2/25/2016 6:35:53 PM	R32418
Carbon disulfide	ND	0.60	10		µg/L	1	2/25/2016 6:35:53 PM	R32418
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Chlorobenzene	ND	0.10	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Chloroethane	ND	0.15	2.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Chloroform	ND	0.089	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Chloromethane	ND	0.21	3.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Dibromochloromethane	ND	0.087	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Dibromomethane	ND	0.12	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1602A10-003
Matrix: TRIP BLANK
Received Date: 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
2-Hexanone	ND	0.36	10		µg/L	1	2/25/2016 6:35:53 PM	R32418
Isopropylbenzene	ND	0.098	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	2/25/2016 6:35:53 PM	R32418
Methylene Chloride	ND	0.063	3.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
n-Butylbenzene	ND	0.16	3.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
n-Propylbenzene	ND	0.13	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Styrene	ND	0.095	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Vinyl chloride	ND	0.063	1.0		µg/L	1	2/25/2016 6:35:53 PM	R32418
Xylenes, Total	ND	0.32	1.5		µg/L	1	2/25/2016 6:35:53 PM	R32418
Surr: 1,2-Dichloroethane-d4	92.0	0	70-130		%Rec	1	2/25/2016 6:35:53 PM	R32418
Surr: 4-Bromofluorobenzene	107	0	70-130		%Rec	1	2/25/2016 6:35:53 PM	R32418
Surr: Dibromofluoromethane	95.7	0	70-130		%Rec	1	2/25/2016 6:35:53 PM	R32418
Surr: Toluene-d8	104	0	70-130		%Rec	1	2/25/2016 6:35:53 PM	R32418

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: Quarterly GW Sampling
Collection Date: 2/22/2016 4:35:00 PM
Lab ID: 1602A10-004
Matrix: AQUEOUS
Received Date: 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	2/25/2016 6:30:02 PM	23932
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	2/25/2016 6:30:02 PM	23932
Surr: DNOP	129	0	70-141		%Rec	1	2/25/2016 6:30:02 PM	23932
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	2/25/2016 3:21:17 PM	R32416
Surr: BFB	84.7	0	49.5-130		%Rec	1	2/25/2016 3:21:17 PM	R32416
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.80	0.023	0.10		mg/L	1	2/26/2016 1:52:12 AM	R32424
Chloride	2400	5.5	100		mg/L	200	3/2/2016 5:27:03 PM	R32541
Bromide	4.3	0.65	2.0		mg/L	20	2/26/2016 2:04:37 AM	R32424
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50		mg/L	1	2/26/2016 1:52:12 AM	R32424
Sulfate	360	1.3	10		mg/L	20	2/26/2016 2:04:37 AM	R32424
Nitrate+Nitrite as N	1.0	0.84	2.0	J	mg/L	10	3/1/2016 11:17:20 PM	A32498
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.063	0.0013	0.0020		mg/L	1	3/2/2016 3:37:25 PM	A32539
Cadmium	ND	0.00075	0.0020		mg/L	1	3/2/2016 3:37:25 PM	A32539
Calcium	180	1.3	5.0		mg/L	5	3/2/2016 3:45:49 PM	A32539
Chromium	ND	0.0018	0.0060		mg/L	1	3/2/2016 3:37:25 PM	A32539
Copper	ND	0.0040	0.0060		mg/L	1	3/2/2016 3:37:25 PM	A32539
Iron	0.084	0.0091	0.020		mg/L	1	3/2/2016 3:37:25 PM	A32539
Magnesium	30	0.013	1.0		mg/L	1	3/2/2016 3:37:25 PM	A32539
Manganese	0.12	0.00032	0.0020	*	mg/L	1	3/2/2016 3:37:25 PM	A32539
Potassium	9.6	0.18	1.0		mg/L	1	3/2/2016 3:37:25 PM	A32539
Silver	ND	0.0028	0.0050		mg/L	1	3/2/2016 3:37:25 PM	A32539
Sodium	1800	1.9	20		mg/L	20	3/9/2016 1:54:36 PM	B32673
Zinc	0.012	0.0028	0.010		mg/L	1	3/2/2016 3:37:25 PM	A32539
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.12	0.0011	0.0020		mg/L	1	3/1/2016 11:35:23 AM	23939
Cadmium	ND	0.00062	0.0020		mg/L	1	3/1/2016 11:35:23 AM	23939
Chromium	0.0025	0.0022	0.0060	J	mg/L	1	3/1/2016 11:35:23 AM	23939
Copper	ND	0.0051	0.0060		mg/L	1	3/1/2016 11:35:23 AM	23939
Iron	3.6	0.036	0.10	*	mg/L	5	3/2/2016 3:07:37 PM	23939
Manganese	0.43	0.0015	0.0020	*	mg/L	1	3/1/2016 11:35:23 AM	23939
Silver	ND	0.0021	0.0050		mg/L	1	3/1/2016 11:35:23 AM	23939
Zinc	0.020	0.0039	0.010		mg/L	1	3/7/2016 1:45:21 PM	24075
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.00096	0.00032	0.0050	J	mg/L	5	3/10/2016 4:33:51 PM	B32730

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: Quarterly GW Sampling
Collection Date: 2/22/2016 4:35:00 PM
Lab ID: 1602A10-004
Matrix: AQUEOUS
Received Date: 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00041	0.00013	0.0025	J	mg/L	5	3/10/2016 4:33:51 PM	B32730
Selenium	0.0039	0.00097	0.0050	J	mg/L	5	3/10/2016 4:33:51 PM	B32730
Uranium	0.061	0.000048	0.0050	*	mg/L	10	3/10/2016 4:43:01 PM	B32730
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0015	0.0015	0.0050	J	mg/L	5	3/9/2016 3:29:21 PM	24075
Lead	0.0044	0.00024	0.0025		mg/L	5	3/9/2016 3:29:21 PM	24075
Selenium	0.0034	0.00062	0.0050	J	mg/L	5	3/9/2016 3:29:21 PM	24075
Uranium	0.063	0.000025	0.0025	*	mg/L	5	3/9/2016 3:29:21 PM	24075
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000095	0.000053	0.00020	J	mg/L	1	2/26/2016 12:39:54 PM	23952
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Acenaphthylene	ND	7.2	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Aniline	ND	9.8	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Anthracene	ND	6.6	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Azobenzene	ND	9.3	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Benzoic acid	ND	9.8	20		µg/L	1	3/2/2016 3:12:31 PM	23981
Benzyl alcohol	ND	8.0	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/2/2016 3:12:31 PM	23981
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Carbazole	ND	7.2	10		µg/L	1	3/2/2016 3:12:31 PM	23981
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/2/2016 3:12:31 PM	23981
4-Chloroaniline	ND	7.1	10		µg/L	1	3/2/2016 3:12:31 PM	23981
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/2/2016 3:12:31 PM	23981
2-Chlorophenol	ND	8.7	10		µg/L	1	3/2/2016 3:12:31 PM	23981
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Chrysene	ND	6.6	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/2/2016 3:12:31 PM	23981

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: Quarterly GW Sampling
Collection Date: 2/22/2016 4:35:00 PM
Lab ID: 1602A10-004
Matrix: AQUEOUS
Received Date: 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Dibenzofuran	ND	8.6	10		µg/L	1	3/2/2016 3:12:31 PM	23981
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/2/2016 3:12:31 PM	23981
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/2/2016 3:12:31 PM	23981
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/2/2016 3:12:31 PM	23981
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Diethyl phthalate	ND	8.2	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/2/2016 3:12:31 PM	23981
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/2/2016 3:12:31 PM	23981
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/2/2016 3:12:31 PM	23981
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/2/2016 3:12:31 PM	23981
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/2/2016 3:12:31 PM	23981
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/2/2016 3:12:31 PM	23981
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Fluoranthene	ND	6.1	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Fluorene	ND	7.2	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Hexachloroethane	ND	5.8	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Isophorone	ND	8.1	10		µg/L	1	3/2/2016 3:12:31 PM	23981
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/2/2016 3:12:31 PM	23981
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/2/2016 3:12:31 PM	23981
2-Methylphenol	ND	8.2	10		µg/L	1	3/2/2016 3:12:31 PM	23981
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/2/2016 3:12:31 PM	23981
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/2/2016 3:12:31 PM	23981
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/2/2016 3:12:31 PM	23981
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Naphthalene	ND	5.9	10		µg/L	1	3/2/2016 3:12:31 PM	23981
2-Nitroaniline	ND	9.0	10		µg/L	1	3/2/2016 3:12:31 PM	23981
3-Nitroaniline	ND	8.8	10		µg/L	1	3/2/2016 3:12:31 PM	23981
4-Nitroaniline	ND	9.1	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Nitrobenzene	ND	7.8	10		µg/L	1	3/2/2016 3:12:31 PM	23981
2-Nitrophenol	ND	7.6	10		µg/L	1	3/2/2016 3:12:31 PM	23981
4-Nitrophenol	ND	6.7	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Pentachlorophenol	ND	7.6	20		µg/L	1	3/2/2016 3:12:31 PM	23981
Phenanthrene	ND	6.8	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Phenol	ND	5.1	10		µg/L	1	3/2/2016 3:12:31 PM	23981

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: Quarterly GW Sampling
Collection Date: 2/22/2016 4:35:00 PM
Lab ID: 1602A10-004
Matrix: AQUEOUS
Received Date: 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Pyridine	ND	6.7	10		µg/L	1	3/2/2016 3:12:31 PM	23981
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/2/2016 3:12:31 PM	23981
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/2/2016 3:12:31 PM	23981
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/2/2016 3:12:31 PM	23981
Surr: 2-Fluorophenol	55.2	0	4.63-113		%Rec	1	3/2/2016 3:12:31 PM	23981
Surr: Phenol-d5	42.8	0	4.13-124		%Rec	1	3/2/2016 3:12:31 PM	23981
Surr: 2,4,6-Tribromophenol	56.0	0	5.14-132		%Rec	1	3/2/2016 3:12:31 PM	23981
Surr: Nitrobenzene-d5	88.7	0	9.13-140		%Rec	1	3/2/2016 3:12:31 PM	23981
Surr: 2-Fluorobiphenyl	90.0	0	10.8-132		%Rec	1	3/2/2016 3:12:31 PM	23981
Surr: 4-Terphenyl-d14	119	0	12.9-107	S	%Rec	1	3/2/2016 3:12:31 PM	23981
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Toluene	ND	0.089	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Ethylbenzene	ND	0.11	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Methyl tert-butyl ether (MTBE)	15	0.21	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
1,2-Dichloroethane (EDC)	0.59	0.053	1.0	J	µg/L	1	2/25/2016 7:04:18 PM	R32418
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Naphthalene	ND	0.083	2.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Acetone	ND	0.88	10		µg/L	1	2/25/2016 7:04:18 PM	R32418
Bromobenzene	ND	0.080	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Bromodichloromethane	ND	0.098	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Bromoform	ND	0.10	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Bromomethane	ND	0.78	3.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
2-Butanone	ND	0.32	10		µg/L	1	2/25/2016 7:04:18 PM	R32418
Carbon disulfide	ND	0.60	10		µg/L	1	2/25/2016 7:04:18 PM	R32418
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Chlorobenzene	ND	0.10	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Chloroethane	ND	0.15	2.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Chloroform	ND	0.089	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Chloromethane	ND	0.21	3.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
cis-1,2-DCE	0.13	0.12	1.0	J	µg/L	1	2/25/2016 7:04:18 PM	R32418
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: Quarterly GW Sampling
Collection Date: 2/22/2016 4:35:00 PM
Lab ID: 1602A10-004
Matrix: AQUEOUS
Received Date: 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Dibromochloromethane	ND	0.087	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Dibromomethane	ND	0.12	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
1,1-Dichloroethane	1.9	0.11	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
1,1-Dichloroethene	0.47	0.076	1.0	J	µg/L	1	2/25/2016 7:04:18 PM	R32418
1,2-Dichloropropane	0.19	0.047	1.0	J	µg/L	1	2/25/2016 7:04:18 PM	R32418
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
2-Hexanone	ND	0.36	10		µg/L	1	2/25/2016 7:04:18 PM	R32418
Isopropylbenzene	ND	0.098	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	2/25/2016 7:04:18 PM	R32418
Methylene Chloride	ND	0.063	3.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
n-Butylbenzene	ND	0.16	3.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
n-Propylbenzene	ND	0.13	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Styrene	ND	0.095	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Vinyl chloride	ND	0.063	1.0		µg/L	1	2/25/2016 7:04:18 PM	R32418
Xylenes, Total	ND	0.32	1.5		µg/L	1	2/25/2016 7:04:18 PM	R32418
Surr: 1,2-Dichloroethane-d4	94.1	0	70-130		%Rec	1	2/25/2016 7:04:18 PM	R32418

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: Quarterly GW Sampling
Collection Date: 2/22/2016 4:35:00 PM
Lab ID: 1602A10-004
Matrix: AQUEOUS
Received Date: 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 4-Bromofluorobenzene	106	0	70-130		%Rec	1	2/25/2016 7:04:18 PM	R32418
Surr: Dibromofluoromethane	96.3	0	70-130		%Rec	1	2/25/2016 7:04:18 PM	R32418
Surr: Toluene-d8	105	0	70-130		%Rec	1	2/25/2016 7:04:18 PM	R32418

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1602A10-005
Matrix: TRIP BLANK
Received Date: 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	2/25/2016 3:45:58 PM	R32416
Surr: BFB	87.4	0	49.5-130		%Rec	1	2/25/2016 3:45:58 PM	R32416
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Toluene	ND	0.089	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Ethylbenzene	ND	0.11	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Naphthalene	ND	0.083	2.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Acetone	ND	0.88	10		µg/L	1	2/25/2016 7:32:42 PM	R32418
Bromobenzene	ND	0.080	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Bromodichloromethane	ND	0.098	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Bromoform	ND	0.10	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Bromomethane	ND	0.78	3.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
2-Butanone	ND	0.32	10		µg/L	1	2/25/2016 7:32:42 PM	R32418
Carbon disulfide	ND	0.60	10		µg/L	1	2/25/2016 7:32:42 PM	R32418
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Chlorobenzene	ND	0.10	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Chloroethane	ND	0.15	2.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Chloroform	ND	0.089	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Chloromethane	ND	0.21	3.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Dibromochloromethane	ND	0.087	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Dibromomethane	ND	0.12	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1602A10-005
Matrix: TRIP BLANK
Received Date: 2/23/2016 4:25:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
2-Hexanone	ND	0.36	10		µg/L	1	2/25/2016 7:32:42 PM	R32418
Isopropylbenzene	ND	0.098	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	2/25/2016 7:32:42 PM	R32418
Methylene Chloride	ND	0.063	3.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
n-Butylbenzene	ND	0.16	3.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
n-Propylbenzene	ND	0.13	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Styrene	ND	0.095	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Vinyl chloride	ND	0.063	1.0		µg/L	1	2/25/2016 7:32:42 PM	R32418
Xylenes, Total	ND	0.32	1.5		µg/L	1	2/25/2016 7:32:42 PM	R32418
Surr: 1,2-Dichloroethane-d4	94.5	0	70-130		%Rec	1	2/25/2016 7:32:42 PM	R32418
Surr: 4-Bromofluorobenzene	107	0	70-130		%Rec	1	2/25/2016 7:32:42 PM	R32418
Surr: Dibromofluoromethane	96.9	0	70-130		%Rec	1	2/25/2016 7:32:42 PM	R32418
Surr: Toluene-d8	104	0	70-130		%Rec	1	2/25/2016 7:32:42 PM	R32418

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B32475**	RunNo: **32475**
Prep Date:	Analysis Date: **3/1/2016**	SeqNo: **993271** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B32475**	RunNo: **32475**
Prep Date:	Analysis Date: **3/1/2016**	SeqNo: **993272** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.5	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.5	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	96.3	85	115			
Copper	0.49	0.0060	0.5000	0	98.1	85	115			
Iron	0.49	0.020	0.5000	0	97.5	85	115			
Magnesium	50	1.0	50.00	0	99.6	85	115			
Manganese	0.47	0.0020	0.5000	0	94.0	85	115			
Potassium	49	1.0	50.00	0	97.5	85	115			
Silver	0.098	0.0050	0.1000	0	97.8	85	115			
Sodium	49	1.0	50.00	0	98.0	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B32475**	RunNo: **32475**
Prep Date:	Analysis Date: **3/1/2016**	SeqNo: **993273** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0023	0.0020	0.002000	0	114	50	150			
Cadmium	0.0020	0.0020	0.002000	0	102	50	150			
Calcium	0.56	1.0	0.5000	0	113	50	150			J
Chromium	0.0056	0.0060	0.006000	0	92.7	50	150			J
Copper	0.0069	0.0060	0.006000	0	115	50	150			
Iron	0.020	0.020	0.02000	0	101	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B32475**	RunNo: **32475**
Prep Date:	Analysis Date: **3/1/2016**	SeqNo: **993273** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	0.53	1.0	0.5000	0	105	50	150			J
Manganese	0.0021	0.0020	0.002000	0	106	50	150			
Potassium	0.50	1.0	0.5000	0	99.8	50	150			J
Silver	0.0050	0.0050	0.005000	0	99.2	50	150			J
Sodium	0.54	1.0	0.5000	0	109	50	150			J

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A32539**	RunNo: **32539**
Prep Date:	Analysis Date: **3/2/2016**	SeqNo: **995471** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A32539**	RunNo: **32539**
Prep Date:	Analysis Date: **3/2/2016**	SeqNo: **995472** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.0020	0.5000	0	94.8	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.5	85	115			
Calcium	49	1.0	50.00	0	98.3	85	115			
Chromium	0.47	0.0060	0.5000	0	94.6	85	115			
Copper	0.48	0.0060	0.5000	0	95.8	85	115			
Iron	0.47	0.020	0.5000	0	93.4	85	115			
Magnesium	50	1.0	50.00	0	99.1	85	115			
Manganese	0.46	0.0020	0.5000	0	91.9	85	115			
Potassium	48	1.0	50.00	0	95.8	85	115			
Silver	0.098	0.0050	0.1000	0	97.5	85	115			
Sodium	49	1.0	50.00	0	97.3	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A32539**	RunNo: **32539**
Prep Date:	Analysis Date: **3/2/2016**	SeqNo: **995472** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.47	0.010	0.5000	0	93.6	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A32539**	RunNo: **32539**
Prep Date:	Analysis Date: **3/2/2016**	SeqNo: **995473** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0017	0.0020	0.002000	0	86.5	50	150			J
Cadmium	0.0022	0.0020	0.002000	0	108	50	150			
Calcium	0.51	1.0	0.5000	0	101	50	150			J
Chromium	0.0063	0.0060	0.006000	0	106	50	150			
Copper	0.0074	0.0060	0.006000	0	124	50	150			
Iron	0.021	0.020	0.02000	0	106	50	150			
Magnesium	0.53	1.0	0.5000	0	107	50	150			J
Manganese	0.0021	0.0020	0.002000	0	106	50	150			
Potassium	0.55	1.0	0.5000	0	110	50	150			J
Silver	0.0048	0.0050	0.005000	0	95.8	50	150			J
Sodium	0.53	1.0	0.5000	0	106	50	150			J
Zinc	0.0049	0.010	0.005000	0	98.8	50	150			J

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B32673**	RunNo: **32673**
Prep Date:	Analysis Date: **3/9/2016**	SeqNo: **999902** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B32673**	RunNo: **32673**
Prep Date:	Analysis Date: **3/9/2016**	SeqNo: **999903** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	53	1.0	50.00	0	105	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B32673**	RunNo: **32673**
Prep Date:	Analysis Date: **3/9/2016**	SeqNo: **999904** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	0.49	1.0	0.5000	0	97.1	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-23939**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**23939**	RunNo:	**32475**					
Prep Date:	**2/25/2016**	Analysis Date:	**3/1/2016**	SeqNo:	**993256**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	0.012	0.020								J
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID	**LCS-23939**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID:	**23939**	RunNo:	**32475**					
Prep Date:	**2/25/2016**	Analysis Date:	**3/1/2016**	SeqNo:	**993257**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.5	85	115			
Cadmium	0.52	0.0020	0.5000	0	103	85	115			
Chromium	0.50	0.0060	0.5000	0	99.3	85	115			
Copper	0.49	0.0060	0.5000	0	98.1	85	115			
Iron	0.50	0.020	0.5000	0	99.6	85	115			
Manganese	0.48	0.0020	0.5000	0	95.9	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			

Sample ID	**LLLCS-23939**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID:	**23939**	RunNo:	**32475**					
Prep Date:	**2/25/2016**	Analysis Date:	**3/1/2016**	SeqNo:	**993258**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0023	0.0020	0.002000	0	117	50	150			
Cadmium	0.0021	0.0020	0.002000	0	106	50	150			
Chromium	0.0067	0.0060	0.006000	0	112	50	150			
Copper	0.0066	0.0060	0.006000	0	111	50	150			
Iron	0.021	0.020	0.02000	0	106	50	150			
Manganese	0.0021	0.0020	0.002000	0	103	50	150			
Silver	0.0050	0.0050	0.005000	0	101	50	150			

Sample ID	**1602A10-001FMS**	SampType:	**MS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-24**	Batch ID:	**23939**	RunNo:	**32475**					
Prep Date:	**2/25/2016**	Analysis Date:	**3/1/2016**	SeqNo:	**993702**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	99.4	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**1602A10-001FMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-24**	Batch ID:	**23939**		RunNo:	**32475**				
Prep Date:	**2/25/2016**	Analysis Date:	**3/1/2016**		SeqNo:	**993702**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.49	0.0060	0.5000	0.005920	97.4	70	130			
Copper	0.51	0.0060	0.5000	0.008620	99.5	70	130			

Sample ID	**1602A10-001FMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-24**	Batch ID:	**23939**		RunNo:	**32475**				
Prep Date:	**2/25/2016**	Analysis Date:	**3/1/2016**		SeqNo:	**993703**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.51	0.0020	0.5000	0	102	70	130	2.39	20	
Chromium	0.50	0.0060	0.5000	0.005920	99.6	70	130	2.17	20	
Copper	0.52	0.0060	0.5000	0.008620	102	70	130	2.67	20	

Sample ID	**1602A10-001FMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-24**	Batch ID:	**23939**		RunNo:	**32539**				
Prep Date:	**2/25/2016**	Analysis Date:	**3/2/2016**		SeqNo:	**995513**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.98	0.0020	0.5000	0.5084	94.0	70	130			
Silver	0.061	0.0050	0.1000	0	60.6	70	130			S

Sample ID	**1602A10-001FMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-24**	Batch ID:	**23939**		RunNo:	**32539**				
Prep Date:	**2/25/2016**	Analysis Date:	**3/2/2016**		SeqNo:	**995514**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.0	0.0020	0.5000	0.5084	97.7	70	130	1.86	20	
Silver	0.050	0.0050	0.1000	0	50.0	70	130	19.2	20	S

Sample ID	**1602A10-001FMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-24**	Batch ID:	**23939**		RunNo:	**32539**				
Prep Date:	**2/25/2016**	Analysis Date:	**3/2/2016**		SeqNo:	**995520**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	2.7	0.010	0.5000	2.297	84.9	70	130			

Sample ID	**1602A10-001FMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-24**	Batch ID:	**23939**		RunNo:	**32539**				
Prep Date:	**2/25/2016**	Analysis Date:	**3/2/2016**		SeqNo:	**995521**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**1602A10-001FMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-24**	Batch ID:	**23939**		RunNo:	**32539**				
Prep Date:	**2/25/2016**	Analysis Date:	**3/2/2016**		SeqNo:	**995521**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	2.8	0.010	0.5000	2.297	102	70	130	3.17	20	

Sample ID	**MB-24075**	SampType:	**MBLK**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**PBW**	Batch ID:	**24075**		RunNo:	**32607**				
Prep Date:	**3/3/2016**	Analysis Date:	**3/7/2016**		SeqNo:	**997674**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Sample ID	**LCS-24075**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**LCSW**	Batch ID:	**24075**		RunNo:	**32607**				
Prep Date:	**3/3/2016**	Analysis Date:	**3/7/2016**		SeqNo:	**997675**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.50	0.010	0.5000	0	101	85	115			

Sample ID	**LLLCS-24075**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**BatchQC**	Batch ID:	**24075**		RunNo:	**32607**				
Prep Date:	**3/3/2016**	Analysis Date:	**3/7/2016**		SeqNo:	**997676**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.0057	0.010	0.005000	0	115	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C32643**	RunNo: **32643**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **998882** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	93.5	85	115			
Lead	0.012	0.00050	0.01250	0	96.0	85	115			
Uranium	0.012	0.00050	0.01250	0	95.5	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C32643**	RunNo: **32643**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **998883** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00099	0.0010	0.001000	0	98.8	50	150			J
Lead	0.00051	0.00050	0.0005000	0	102	50	150			
Uranium	0.00049	0.00050	0.0005000	0	98.0	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C32643**	RunNo: **32643**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **998884** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Uranium	ND	0.00050								

Sample ID **1602A10-004EMSDL**	SampType: **MSD**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **MKTF-27**	Batch ID: **B32730**	RunNo: **32730**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1001699** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.0009615	103	70	130	0.307	20	
Lead	0.063	0.0025	0.06250	0.0004068	100	70	130	0.120	20	
Selenium	0.12	0.0050	0.1250	0.003873	95.8	70	130	2.31	20	

Sample ID **1602A10-004EMSLL**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **MKTF-27**	Batch ID: **B32730**	RunNo: **32730**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1001700** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.0009615	102	70	130			
Lead	0.063	0.0025	0.06250	0.0004068	100	70	130			
Selenium	0.12	0.0050	0.1250	0.003873	93.6	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B32730**	RunNo: **32730**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1001719** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	92.3	85	115			
Lead	0.012	0.00050	0.01250	0	93.0	85	115			
Selenium	0.024	0.0010	0.02500	0	94.0	85	115			
Uranium	0.012	0.00050	0.01250	0	93.5	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B32730**	RunNo: **32730**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1001720** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00093	0.0010	0.001000	0	93.3	50	150			J
Lead	0.00048	0.00050	0.0005000	0	96.9	50	150			J
Selenium	0.0010	0.0010	0.001000	0	105	50	150			
Uranium	0.00047	0.00050	0.0005000	0	94.8	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B32730**	RunNo: **32730**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1001721** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	0.000015	0.00050								J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-24075**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**24075**	RunNo:	**32687**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000380**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-24075**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**24075**	RunNo:	**32687**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000383**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.1	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.025	0.0010	0.02500	0	98.0	85	115			
Uranium	0.012	0.00050	0.01250	0	98.8	85	115			

Sample ID	**MSLLLCS-24075**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**24075**	RunNo:	**32687**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000386**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00087	0.0010	0.001000	0	86.9	50	150			J
Lead	0.00046	0.00050	0.0005000	0	91.5	50	150			J
Selenium	0.00081	0.0010	0.001000	0	81.0	50	150			J
Uranium	0.00044	0.00050	0.0005000	0	87.4	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-23952**	SampType:	**mblk**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**23952**	RunNo:	**32446**					
Prep Date:	**2/25/2016**	Analysis Date:	**2/26/2016**	SeqNo:	**992342**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000060	0.00020								J

Sample ID	**LCS-23952**	SampType:	**lcs**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**23952**	RunNo:	**32446**					
Prep Date:	**2/25/2016**	Analysis Date:	**2/26/2016**	SeqNo:	**992343**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	101	80	120			

Sample ID	**1602A10-001FMS**	SampType:	**ms**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**MKTF-24**	Batch ID:	**23952**	RunNo:	**32446**					
Prep Date:	**2/25/2016**	Analysis Date:	**2/26/2016**	SeqNo:	**992345**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0054	0.00020	0.005000	0.0001332	105	75	125			

Sample ID	**1602A10-001FMSD**	SampType:	**msd**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**MKTF-24**	Batch ID:	**23952**	RunNo:	**32446**					
Prep Date:	**2/25/2016**	Analysis Date:	**2/26/2016**	SeqNo:	**992346**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0054	0.00020	0.005000	0.0001332	106	75	125	0.889	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32424**	RunNo: **32424**
Prep Date:	Analysis Date: **2/25/2016**	SeqNo: **991478** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32424**	RunNo: **32424**
Prep Date:	Analysis Date: **2/25/2016**	SeqNo: **991479** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	97.4	90	110			
Bromide	2.5	0.10	2.500	0	99.6	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.4	90	110			
Sulfate	9.9	0.50	10.00	0	98.6	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32480**	RunNo: **32480**
Prep Date:	Analysis Date: **2/29/2016**	SeqNo: **993501** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32480**	RunNo: **32480**
Prep Date:	Analysis Date: **2/29/2016**	SeqNo: **993502** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.7	0.20	3.500	0	106	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A32498**	RunNo: **32498**
Prep Date:	Analysis Date: **3/1/2016**	SeqNo: **994156** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A32498**	RunNo: **32498**
Prep Date:	Analysis Date: **3/1/2016**	SeqNo: **994157** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.0	0.50	5.000	0	99.9	90	110			
Nitrate+Nitrite as N	3.6	0.20	3.500	0	104	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32541**	RunNo: **32541**
Prep Date:	Analysis Date: **3/2/2016**	SeqNo: **995627** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32541**	RunNo: **32541**
Prep Date:	Analysis Date: **3/2/2016**	SeqNo: **995628** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.3	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB-23932**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **23932**	RunNo: **32388**
Prep Date: **2/25/2016**	Analysis Date: **2/25/2016**	SeqNo: **990951** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		116	70	141			

Sample ID **LCS-23932**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **23932**	RunNo: **32422**
Prep Date: **2/25/2016**	Analysis Date: **2/26/2016**	SeqNo: **991575** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.7	1.0	5.000	0	114	71.3	139			
Surr: DNOP	0.53		0.5000		106	70	141			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **R32416**	RunNo: **32416**
Prep Date:	Analysis Date: **2/25/2016**	SeqNo: **991284** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	17		20.00		86.1	49.5	130			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R32416**	RunNo: **32416**
Prep Date:	Analysis Date: **2/25/2016**	SeqNo: **991285** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	92.2	80	120			
Surr: BFB	20		20.00		102	49.5	130			

Sample ID **1602A10-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-24**	Batch ID: **R32416**	RunNo: **32416**
Prep Date:	Analysis Date: **2/25/2016**	SeqNo: **991293** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	34	0.50	5.000	29.48	82.2	70	130			
Surr: BFB	270		200.0		137	49.5	130			S

Sample ID **1602A10-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-24**	Batch ID: **R32416**	RunNo: **32416**
Prep Date:	Analysis Date: **2/25/2016**	SeqNo: **991294** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	33	0.50	5.000	29.48	74.2	70	130	1.20	20	
Surr: BFB	270		200.0		136	49.5	130	0	0	S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32418**	RunNo: **32418**
Prep Date:	Analysis Date: **2/25/2016**	SeqNo: **991320** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	0.26	3.0								J
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32418**	RunNo: **32418**
Prep Date:	Analysis Date: **2/25/2016**	SeqNo: **991320** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	0.61	3.0								J
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.5	70	130			
Surr: Toluene-d8	11		10.00		105	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32418**	RunNo: **32418**
Prep Date:	Analysis Date: **2/25/2016**	SeqNo: **991321** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.7	70	130			
Toluene	22	1.0	20.00	0	109	70	130			
Chlorobenzene	22	1.0	20.00	0	110	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32418**	RunNo: **32418**
Prep Date:	Analysis Date: **2/25/2016**	SeqNo: **991321** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	19	1.0	20.00	0	95.6	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	98.7	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		108	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.0	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **mb-23981**	SampType: **MBLK**		TestCode: **EPA Method 8270C: Semivolatiles**		
Client ID: **PBW**	Batch ID: **23981**		RunNo: **32524**		
Prep Date: **2/29/2016**	Analysis Date: **3/2/2016**		SeqNo: **995048**	Units: **µg/L**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **mb-23981**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **23981**	RunNo: **32524**
Prep Date: **2/29/2016**	Analysis Date: **3/2/2016**	SeqNo: **995048** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	190		200.0		92.6	4.63	113			
Surr: Phenol-d5	190		200.0		94.1	4.13	124			
Surr: 2,4,6-Tribromophenol	94		200.0		47.2	5.14	132			
Surr: Nitrobenzene-d5	87		100.0		87.4	9.13	140			
Surr: 2-Fluorobiphenyl	87		100.0		86.9	10.8	132			
Surr: 4-Terphenyl-d14	110		100.0		110	12.9	107			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **lcs-23981**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **23981**	RunNo: **32524**
Prep Date: **2/29/2016**	Analysis Date: **3/2/2016**	SeqNo: **995049** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	91	10	100.0	0	91.0	40.2	107			
4-Chloro-3-methylphenol	160	10	200.0	0	77.5	48.2	107			
2-Chlorophenol	160	10	200.0	0	81.6	42.5	106			
1,4-Dichlorobenzene	83	10	100.0	0	83.3	31.6	111			
2,4-Dinitrotoluene	68	10	100.0	0	67.8	33.6	86.5			
N-Nitrosodi-n-propylamine	85	10	100.0	0	84.8	44	106			
4-Nitrophenol	130	10	200.0	0	63.3	25.5	109			
Pentachlorophenol	97	20	200.0	0	48.6	38.8	97.8			
Phenol	170	10	200.0	0	84.5	22.7	116			
Pyrene	77	10	100.0	0	76.8	29.3	138			
1,2,4-Trichlorobenzene	84	10	100.0	0	83.6	35.3	123			
Surr: 2-Fluorophenol	160		200.0		80.0	4.63	113			
Surr: Phenol-d5	170		200.0		84.9	4.13	124			
Surr: 2,4,6-Tribromophenol	100		200.0		51.0	5.14	132			
Surr: Nitrobenzene-d5	84		100.0		84.1	9.13	140			
Surr: 2-Fluorobiphenyl	91		100.0		91.2	10.8	132			
Surr: 4-Terphenyl-d14	100		100.0		99.8	12.9	107			

Sample ID **1602a10-002cmsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **MKTF-26**	Batch ID: **23981**	RunNo: **32524**
Prep Date: **2/29/2016**	Analysis Date: **3/2/2016**	SeqNo: **995061** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	81	10	100.0	0	80.9	25.5	126	0.396	31.3	
4-Chloro-3-methylphenol	140	10	200.0	0	71.3	26.6	138	1.94	29	
2-Chlorophenol	150	10	200.0	0	77.0	23.9	133	20.6	28.4	
1,4-Dichlorobenzene	81	10	100.0	0	81.0	20.3	122	6.05	28.2	
2,4-Dinitrotoluene	79	10	100.0	0	79.3	40	94.5	15.6	22.9	
N-Nitrosodi-n-propylamine	88	10	100.0	0	88.3	25.9	131	6.89	28.8	
4-Nitrophenol	70	10	200.0	0	35.1	17.2	88.9	161	41.5	R
Pentachlorophenol	120	20	200.0	0	58.6	13.6	123	132	45.1	R
Phenol	74	10	200.0	0	36.9	20.7	100	4.43	33.9	
Pyrene	71	10	100.0	0	70.8	21.8	129	7.27	33.6	
1,2,4-Trichlorobenzene	86	10	100.0	0	86.3	22	130	2.09	28.2	
Surr: 2-Fluorophenol	95		200.0		47.6	4.63	113	0	0	
Surr: Phenol-d5	68		200.0		34.0	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	160		200.0		80.8	5.14	132	0	0	
Surr: Nitrobenzene-d5	88		100.0		87.9	9.13	140	0	0	
Surr: 2-Fluorobiphenyl	86		100.0		86.4	10.8	132	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A10**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**1602a10-002cmsd**	SampType:	**MSD**	TestCode:	**EPA Method 8270C: Semivolatiles**					
Client ID:	**MKTF-26**	Batch ID:	**23981**	RunNo:	**32524**					
Prep Date:	**2/29/2016**	Analysis Date:	**3/2/2016**	SeqNo:	**995061**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	67		100.0		67.4	12.9	107	0	0	

Sample ID	**1602a10-002cms**	SampType:	**MS**	TestCode:	**EPA Method 8270C: Semivolatiles**					
Client ID:	**MKTF-26**	Batch ID:	**23981**	RunNo:	**32558**					
Prep Date:	**2/29/2016**	Analysis Date:	**3/3/2016**	SeqNo:	**996124**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	83	10	100.0	0	82.5	46.4	121			
4-Chloro-3-methylphenol	150	10	200.0	0	74.4	45.3	135			
2-Chlorophenol	130	10	200.0	0	67.4	23.9	133			
1,4-Dichlorobenzene	76	10	100.0	0	76.5	42.6	104			
2,4-Dinitrotoluene	78	10	100.0	0	77.6	28.9	126			
N-Nitrosodi-n-propylamine	81	10	100.0	0	81.4	49.2	117			
4-Nitrophenol	9.3	10	200.0	0	4.67	18.1	97.2			JS
Pentachlorophenol	36	20	200.0	0	18.1	24.8	127			S
Phenol	74	10	200.0	0	36.9	17.9	93.6			
Pyrene	82	10	100.0	0	81.8	29.6	142			
1,2,4-Trichlorobenzene	79	10	100.0	0	79.4	39.5	109			
Surr: 2-Fluorophenol	67		200.0		33.6	4.63	113			
Surr: Phenol-d5	66		200.0		33.1	4.13	124			
Surr: 2,4,6-Tribromophenol	95		200.0		47.3	5.14	132			
Surr: Nitrobenzene-d5	81		100.0		81.0	9.13	140			
Surr: 2-Fluorobiphenyl	80		100.0		79.5	10.8	132			
Surr: 4-Terphenyl-d14	62		100.0		62.3	12.9	107			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1602A10 RcptNo: 1

Received by/date: AG 02/23/16

Logged By: Ashley Gallegos 2/23/2016 4:25:00 PM AG

Completed By: Ashley Gallegos 2/24/2016 11:20:32 AM AG

Reviewed By: 2/25/16

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☑ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
8. Are samples (except VOA and ONG) properly preserved? 02/25/16 Yes ☑ No ☑
9. Was preservative added to bottles? Yes ☑ No ☑ NA ☐

For metals analysis: Added 0.4 mL HNO_3 to -002E for acceptable pH.

10. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☑
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
14. Is it clear what analyses were requested? Yes ☑ No ☐
15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

02/25/16 @ 0943

# of preserved bottles checked for pH: 9 (<2 or >12 unless noted)

Adjusted? Yes

Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1602A10	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	Total & Dissolved	Air Bubbles (Y or N)
2/3/16	1310	WATER	MKTF-24	40ML VOA-6	HCL	-001			✓							✓					
				1 LITER AMBER-2	NEAT				✓								✓				
				125 ML PLASTIC-1	HNO_3													✓	✓		
				500 ML PLASTIC-1	HNO_3														✓		
				125 ML PLASTIC-1	H_2SO_4													✓			
↓	↓	↓	↓	500 ML PLASTIC-1	NEAT														✓		

Date:	Time:	Relinquished by:	Received by:	Date	Time
2/3/16	0755			2/3/16	3:23
2/3/16	1625			02/03/16	1625

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard ☒ Level 4 (Full Validation)
Accreditation: NELAP ☐ Other
EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1402410
7/23/16	1435	WATER	MKTF-26	40 mL VOA-6	HCL	-002
				1 LITER AMBER-3	NEAT	
				125 mL PLASTIC-1	HNO_3	
				500 mL PLASTIC-1	HNO_3	
				125 mL PLASTIC-1	H_2SO_4	
				500 mL PLASTIC-1	NEAT	
—	—	WATER	TRIP BLANK	40 mL VOA-3	HCL	-003

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations / Anions	WQCC Metals	Total & Dissolved	At 02/24/14	Air Bubbles (Y or N)
		✓							✓						
		✓								✓					
											✓	✓			
												✓			
											✓				
												✓			
									✓						

Date: 7/23/16 Time: 0755 Relinquished by: [signature] Received by: [signature] Date: 7/23/16 Time: 1423

Date: 7/23/16 Time: 1625 Relinquished by: [signature] Received by: [signature] Date: 07/23/16 Time: 1625

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

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Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
2/3/16	1635	WATER	MKTF-27	40 ML VOA-6	HCL	1602410-003
				1 LITER AMBER-2	NEAT	-004
				125 ML PLASTIC-1	HNO_3	
				500 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	
—	—	WATER	TRIP BLANK	40 ML VOA-3	HCL	-005
						005

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	Total & Dissolved	4-02/24/16	Air Bubbles (Y or N)
		✓							✓						
		✓								✓					
											✓	✓			
												✓			
											✓				
												✓			
									✓						

Date: 2/3/16 Time: 0755 Relinquished by: — Received by: Date: 2/23/16 Time: 3:23 1123
Date: Time: Relinquished by: Received by: Date: 02/23/16 Time: 1625

Remarks:

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Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 31, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: Quarterly GW Sampling OrderNo.: 1602A45

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 2/25/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 9:35:00 AM
Lab ID: 1602A45-001 **Matrix:** AQUEOUS **Received Date:** 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	2/25/2016 6:51:46 PM	23932
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	2/25/2016 6:51:46 PM	23932
Surr: DNOP	132	0	70-141		%Rec	1	2/25/2016 6:51:46 PM	23932
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	2/25/2016 4:10:40 PM	R32416
Surr: BFB	84.7	0	49.5-130		%Rec	1	2/25/2016 4:10:40 PM	R32416
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.93	0.023	0.10		mg/L	1	2/25/2016 9:43:58 PM	R32424
Chloride	500	1.4	25		mg/L	50	3/1/2016 4:52:38 PM	R32498
Bromide	3.1	0.65	2.0		mg/L	20	2/25/2016 9:56:23 PM	R32424
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	2/25/2016 9:43:58 PM	R32424
Sulfate	160	1.3	10		mg/L	20	2/25/2016 9:56:23 PM	R32424
Nitrate+Nitrite as N	4.9	0.42	1.0		mg/L	5	2/29/2016 1:44:20 PM	R32480
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.069	0.0013	0.0020		mg/L	1	3/2/2016 3:47:52 PM	A32539
Cadmium	ND	0.00075	0.0020		mg/L	1	3/2/2016 3:47:52 PM	A32539
Calcium	49	0.26	1.0		mg/L	1	3/2/2016 3:47:52 PM	A32539
Chromium	ND	0.0018	0.0060		mg/L	1	3/2/2016 3:47:52 PM	A32539
Copper	ND	0.0040	0.0060		mg/L	1	3/2/2016 3:47:52 PM	A32539
Iron	0.064	0.0091	0.020		mg/L	1	3/2/2016 3:47:52 PM	A32539
Magnesium	9.8	0.013	1.0		mg/L	1	3/2/2016 3:47:52 PM	A32539
Manganese	0.016	0.00032	0.0020		mg/L	1	3/2/2016 3:47:52 PM	A32539
Potassium	2.2	0.18	1.0		mg/L	1	3/2/2016 3:47:52 PM	A32539
Silver	ND	0.0028	0.0050		mg/L	1	3/2/2016 3:47:52 PM	A32539
Sodium	620	0.96	10		mg/L	10	3/9/2016 3:43:34 PM	B32673
Zinc	0.027	0.0028	0.010		mg/L	1	3/2/2016 3:47:52 PM	A32539
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.14	0.0011	0.0020		mg/L	1	3/2/2016 3:09:40 PM	23939
Cadmium	ND	0.00062	0.0020		mg/L	1	3/2/2016 3:09:40 PM	23939
Chromium	0.0028	0.0022	0.0060	J	mg/L	1	3/2/2016 3:09:40 PM	23939
Copper	ND	0.0051	0.0060		mg/L	1	3/2/2016 3:09:40 PM	23939
Iron	3.7	0.036	0.10	*	mg/L	5	3/9/2016 3:15:24 PM	23939
Manganese	0.18	0.0015	0.0020	*	mg/L	1	3/2/2016 3:09:40 PM	23939
Silver	ND	0.0021	0.0050		mg/L	1	3/2/2016 3:09:40 PM	23939
Zinc	0.018	0.0039	0.010		mg/L	1	3/7/2016 1:49:29 PM	24075
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0026	0.000065	0.0010		mg/L	1	3/10/2016 4:46:06 PM	B32730

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 9:35:00 AM
Lab ID: 1602A45-001
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00039	0.000026	0.00050	J	mg/L	1	3/10/2016 4:46:06 PM	B32730
Selenium	0.0061	0.00097	0.0050		mg/L	5	3/15/2016 3:16:08 PM	B32805
Uranium	0.16	0.000048	0.0050	*	mg/L	10	3/15/2016 3:19:11 PM	B32805
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0032	0.00029	0.0010		mg/L	1	3/9/2016 2:38:07 PM	24075
Lead	0.0047	0.000047	0.00050		mg/L	1	3/9/2016 2:38:07 PM	24075
Selenium	0.0043	0.0012	0.010	J	mg/L	10	3/9/2016 3:32:22 PM	24075
Uranium	0.16	0.000049	0.0050	*	mg/L	10	3/9/2016 3:32:22 PM	24075
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000069	0.000053	0.00020	J	mg/L	1	2/26/2016 12:41:57 PM	23952
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Acenaphthylene	ND	7.2	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Aniline	ND	9.8	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Anthracene	ND	6.6	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Azobenzene	ND	9.3	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Benzoic acid	ND	9.8	20		µg/L	1	3/2/2016 3:42:28 PM	23981
Benzyl alcohol	ND	8.0	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/2/2016 3:42:28 PM	23981
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Carbazole	ND	7.2	10		µg/L	1	3/2/2016 3:42:28 PM	23981
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/2/2016 3:42:28 PM	23981
4-Chloroaniline	ND	7.1	10		µg/L	1	3/2/2016 3:42:28 PM	23981
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/2/2016 3:42:28 PM	23981
2-Chlorophenol	ND	8.7	10		µg/L	1	3/2/2016 3:42:28 PM	23981
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Chrysene	ND	6.6	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/2/2016 3:42:28 PM	23981

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 9:35:00 AM
Lab ID: 1602A45-001
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Dibenzofuran	ND	8.6	10		µg/L	1	3/2/2016 3:42:28 PM	23981
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/2/2016 3:42:28 PM	23981
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/2/2016 3:42:28 PM	23981
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/2/2016 3:42:28 PM	23981
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Diethyl phthalate	ND	8.2	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/2/2016 3:42:28 PM	23981
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/2/2016 3:42:28 PM	23981
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/2/2016 3:42:28 PM	23981
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/2/2016 3:42:28 PM	23981
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/2/2016 3:42:28 PM	23981
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/2/2016 3:42:28 PM	23981
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Fluoranthene	ND	6.1	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Fluorene	ND	7.2	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Hexachloroethane	ND	5.8	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Isophorone	ND	8.1	10		µg/L	1	3/2/2016 3:42:28 PM	23981
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/2/2016 3:42:28 PM	23981
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/2/2016 3:42:28 PM	23981
2-Methylphenol	ND	8.2	10		µg/L	1	3/2/2016 3:42:28 PM	23981
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/2/2016 3:42:28 PM	23981
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/2/2016 3:42:28 PM	23981
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/2/2016 3:42:28 PM	23981
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Naphthalene	ND	5.9	10		µg/L	1	3/2/2016 3:42:28 PM	23981
2-Nitroaniline	ND	9.0	10		µg/L	1	3/2/2016 3:42:28 PM	23981
3-Nitroaniline	ND	8.8	10		µg/L	1	3/2/2016 3:42:28 PM	23981
4-Nitroaniline	ND	9.1	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Nitrobenzene	ND	7.8	10		µg/L	1	3/2/2016 3:42:28 PM	23981
2-Nitrophenol	ND	7.6	10		µg/L	1	3/2/2016 3:42:28 PM	23981
4-Nitrophenol	ND	6.7	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Pentachlorophenol	ND	7.6	20		µg/L	1	3/2/2016 3:42:28 PM	23981
Phenanthrene	ND	6.8	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Phenol	ND	5.1	10		µg/L	1	3/2/2016 3:42:28 PM	23981

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Project: Quarterly GW Sampling
Collection Date: 2/23/2016 9:35:00 AM
Lab ID: 1602A45-001 **Matrix:** AQUEOUS **Received Date:** 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Pyridine	ND	6.7	10		µg/L	1	3/2/2016 3:42:28 PM	23981
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/2/2016 3:42:28 PM	23981
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/2/2016 3:42:28 PM	23981
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/2/2016 3:42:28 PM	23981
Surr: 2-Fluorophenol	55.0	0	4.63-113		%Rec	1	3/2/2016 3:42:28 PM	23981
Surr: Phenol-d5	41.7	0	4.13-124		%Rec	1	3/2/2016 3:42:28 PM	23981
Surr: 2,4,6-Tribromophenol	56.8	0	5.14-132		%Rec	1	3/2/2016 3:42:28 PM	23981
Surr: Nitrobenzene-d5	88.1	0	9.13-140		%Rec	1	3/2/2016 3:42:28 PM	23981
Surr: 2-Fluorobiphenyl	90.9	0	10.8-132		%Rec	1	3/2/2016 3:42:28 PM	23981
Surr: 4-Terphenyl-d14	115	0	12.9-107	S	%Rec	1	3/2/2016 3:42:28 PM	23981
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Toluene	ND	0.089	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Ethylbenzene	ND	0.11	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Naphthalene	ND	0.083	2.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Acetone	ND	0.88	10		µg/L	1	2/25/2016 8:01:02 PM	R32418
Bromobenzene	ND	0.080	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Bromodichloromethane	ND	0.098	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Bromoform	ND	0.10	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Bromomethane	ND	0.78	3.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
2-Butanone	ND	0.32	10		µg/L	1	2/25/2016 8:01:02 PM	R32418
Carbon disulfide	ND	0.60	10		µg/L	1	2/25/2016 8:01:02 PM	R32418
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Chlorobenzene	ND	0.10	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Chloroethane	ND	0.15	2.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Chloroform	ND	0.089	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Chloromethane	ND	0.21	3.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 9:35:00 AM
Lab ID: 1602A45-001 **Matrix:** AQUEOUS **Received Date:** 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Dibromochloromethane	ND	0.087	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Dibromomethane	ND	0.12	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
2-Hexanone	ND	0.36	10		µg/L	1	2/25/2016 8:01:02 PM	R32418
Isopropylbenzene	ND	0.098	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	2/25/2016 8:01:02 PM	R32418
Methylene Chloride	ND	0.063	3.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
n-Butylbenzene	ND	0.16	3.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
n-Propylbenzene	ND	0.13	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Styrene	ND	0.095	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Vinyl chloride	ND	0.063	1.0		µg/L	1	2/25/2016 8:01:02 PM	R32418
Xylenes, Total	ND	0.32	1.5		µg/L	1	2/25/2016 8:01:02 PM	R32418
Surr: 1,2-Dichloroethane-d4	94.6	0	70-130		%Rec	1	2/25/2016 8:01:02 PM	R32418

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 9:35:00 AM
Lab ID: 1602A45-001
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 4-Bromofluorobenzene	110	0	70-130		%Rec	1	2/25/2016 8:01:02 PM	R32418
Surr: Dibromofluoromethane	96.3	0	70-130		%Rec	1	2/25/2016 8:01:02 PM	R32418
Surr: Toluene-d8	105	0	70-130		%Rec	1	2/25/2016 8:01:02 PM	R32418

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 11:00:00 AM
Lab ID: 1602A45-002
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	2/25/2016 7:13:19 PM	23932
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	2/25/2016 7:13:19 PM	23932
Surr: DNOP	134	0	70-141		%Rec	1	2/25/2016 7:13:19 PM	23932
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	2/25/2016 4:35:19 PM	R32416
Surr: BFB	83.9	0	49.5-130		%Rec	1	2/25/2016 4:35:19 PM	R32416
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.96	0.023	0.10		mg/L	1	2/25/2016 10:08:48 PM	R32424
Chloride	91	0.55	10		mg/L	20	2/25/2016 10:21:12 PM	R32424
Bromide	0.46	0.032	0.10		mg/L	1	2/25/2016 10:08:48 PM	R32424
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	2/25/2016 10:08:48 PM	R32424
Sulfate	640	1.3	10		mg/L	20	2/25/2016 10:21:12 PM	R32424
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	2/29/2016 2:33:59 PM	R32480
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.032	0.0013	0.0020		mg/L	1	3/2/2016 3:51:46 PM	A32539
Cadmium	ND	0.00075	0.0020		mg/L	1	3/2/2016 3:51:46 PM	A32539
Calcium	68	0.26	1.0		mg/L	1	3/2/2016 3:51:46 PM	A32539
Chromium	ND	0.0018	0.0060		mg/L	1	3/2/2016 3:51:46 PM	A32539
Copper	ND	0.0040	0.0060		mg/L	1	3/2/2016 3:51:46 PM	A32539
Iron	0.059	0.0091	0.020		mg/L	1	3/2/2016 3:51:46 PM	A32539
Magnesium	9.8	0.013	1.0		mg/L	1	3/2/2016 3:51:46 PM	A32539
Manganese	0.50	0.00032	0.0020	*	mg/L	1	3/2/2016 3:51:46 PM	A32539
Potassium	0.40	0.18	1.0	J	mg/L	1	3/2/2016 3:51:46 PM	A32539
Silver	ND	0.0028	0.0050		mg/L	1	3/2/2016 3:51:46 PM	A32539
Sodium	560	0.96	10		mg/L	10	3/9/2016 3:45:30 PM	B32673
Zinc	0.012	0.0028	0.010		mg/L	1	3/2/2016 3:51:46 PM	A32539
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.062	0.0011	0.0020		mg/L	1	3/2/2016 3:11:34 PM	23939
Cadmium	ND	0.00062	0.0020		mg/L	1	3/2/2016 3:11:34 PM	23939
Chromium	ND	0.0022	0.0060		mg/L	1	3/2/2016 3:11:34 PM	23939
Copper	ND	0.0051	0.0060		mg/L	1	3/2/2016 3:11:34 PM	23939
Iron	0.90	0.0072	0.020	*	mg/L	1	3/2/2016 3:11:34 PM	23939
Manganese	0.51	0.0015	0.0020	*	mg/L	1	3/2/2016 3:11:34 PM	23939
Silver	ND	0.0021	0.0050		mg/L	1	3/2/2016 3:11:34 PM	23939
Zinc	0.0044	0.0039	0.010	J	mg/L	1	3/7/2016 2:41:14 PM	24075
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0012	0.000065	0.0010		mg/L	1	3/10/2016 4:49:09 PM	B32730

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 11:00:00 AM
Lab ID: 1602A45-002
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.000097	0.000026	0.00050	J	mg/L	1	3/10/2016 4:49:09 PM	B32730
Selenium	0.0013	0.00019	0.0010		mg/L	1	3/10/2016 4:49:09 PM	B32730
Uranium	0.015	0.0000048	0.00050		mg/L	1	3/10/2016 4:49:09 PM	B32730
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0013	0.00029	0.0010		mg/L	1	3/9/2016 2:41:07 PM	24075
Lead	0.00070	0.000047	0.00050		mg/L	1	3/9/2016 2:41:07 PM	24075
Selenium	0.0010	0.00062	0.0050	J	mg/L	5	3/9/2016 3:41:27 PM	24075
Uranium	0.014	0.0000049	0.00050		mg/L	1	3/9/2016 2:41:07 PM	24075
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000061	0.000053	0.00020	J	mg/L	1	2/26/2016 12:44:00 PM	23952
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Acenaphthylene	ND	7.2	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Aniline	ND	9.8	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Anthracene	ND	6.6	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Azobenzene	ND	9.3	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Benzoic acid	ND	9.8	20		µg/L	1	3/2/2016 4:12:18 PM	23981
Benzyl alcohol	ND	8.0	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/2/2016 4:12:18 PM	23981
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Carbazole	ND	7.2	10		µg/L	1	3/2/2016 4:12:18 PM	23981
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/2/2016 4:12:18 PM	23981
4-Chloroaniline	ND	7.1	10		µg/L	1	3/2/2016 4:12:18 PM	23981
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/2/2016 4:12:18 PM	23981
2-Chlorophenol	ND	8.7	10		µg/L	1	3/2/2016 4:12:18 PM	23981
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Chrysene	ND	6.6	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/2/2016 4:12:18 PM	23981

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Lab ID: 1602A45-002
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Dibenzofuran	ND	8.6	10		µg/L	1	3/2/2016 4:12:18 PM	23981
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/2/2016 4:12:18 PM	23981
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/2/2016 4:12:18 PM	23981
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/2/2016 4:12:18 PM	23981
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Diethyl phthalate	ND	8.2	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/2/2016 4:12:18 PM	23981
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/2/2016 4:12:18 PM	23981
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/2/2016 4:12:18 PM	23981
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/2/2016 4:12:18 PM	23981
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/2/2016 4:12:18 PM	23981
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/2/2016 4:12:18 PM	23981
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Fluoranthene	ND	6.1	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Fluorene	ND	7.2	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Hexachloroethane	ND	5.8	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Isophorone	ND	8.1	10		µg/L	1	3/2/2016 4:12:18 PM	23981
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/2/2016 4:12:18 PM	23981
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/2/2016 4:12:18 PM	23981
2-Methylphenol	ND	8.2	10		µg/L	1	3/2/2016 4:12:18 PM	23981
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/2/2016 4:12:18 PM	23981
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/2/2016 4:12:18 PM	23981
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/2/2016 4:12:18 PM	23981
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Naphthalene	ND	5.9	10		µg/L	1	3/2/2016 4:12:18 PM	23981
2-Nitroaniline	ND	9.0	10		µg/L	1	3/2/2016 4:12:18 PM	23981
3-Nitroaniline	ND	8.8	10		µg/L	1	3/2/2016 4:12:18 PM	23981
4-Nitroaniline	ND	9.1	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Nitrobenzene	ND	7.8	10		µg/L	1	3/2/2016 4:12:18 PM	23981
2-Nitrophenol	ND	7.6	10		µg/L	1	3/2/2016 4:12:18 PM	23981
4-Nitrophenol	ND	6.7	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Pentachlorophenol	ND	7.6	20		µg/L	1	3/2/2016 4:12:18 PM	23981
Phenanthrene	ND	6.8	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Phenol	ND	5.1	10		µg/L	1	3/2/2016 4:12:18 PM	23981

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 11:00:00 AM
Lab ID: 1602A45-002
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Pyridine	ND	6.7	10		µg/L	1	3/2/2016 4:12:18 PM	23981
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/2/2016 4:12:18 PM	23981
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/2/2016 4:12:18 PM	23981
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/2/2016 4:12:18 PM	23981
Surr: 2-Fluorophenol	57.9	0	4.63-113		%Rec	1	3/2/2016 4:12:18 PM	23981
Surr: Phenol-d5	41.3	0	4.13-124		%Rec	1	3/2/2016 4:12:18 PM	23981
Surr: 2,4,6-Tribromophenol	64.3	0	5.14-132		%Rec	1	3/2/2016 4:12:18 PM	23981
Surr: Nitrobenzene-d5	84.5	0	9.13-140		%Rec	1	3/2/2016 4:12:18 PM	23981
Surr: 2-Fluorobiphenyl	87.3	0	10.8-132		%Rec	1	3/2/2016 4:12:18 PM	23981
Surr: 4-Terphenyl-d14	121	0	12.9-107	S	%Rec	1	3/2/2016 4:12:18 PM	23981
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Toluene	ND	0.089	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Ethylbenzene	ND	0.11	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Methyl tert-butyl ether (MTBE)	12	0.21	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Naphthalene	ND	0.083	2.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Acetone	ND	0.88	10		µg/L	1	2/25/2016 8:29:22 PM	R32418
Bromobenzene	ND	0.080	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Bromodichloromethane	ND	0.098	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Bromoform	ND	0.10	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Bromomethane	ND	0.78	3.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
2-Butanone	ND	0.32	10		µg/L	1	2/25/2016 8:29:22 PM	R32418
Carbon disulfide	ND	0.60	10		µg/L	1	2/25/2016 8:29:22 PM	R32418
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Chlorobenzene	ND	0.10	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Chloroethane	ND	0.15	2.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Chloroform	ND	0.089	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Chloromethane	ND	0.21	3.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 11:00:00 AM
Lab ID: 1602A45-002 **Matrix:** AQUEOUS **Received Date:** 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Dibromochloromethane	ND	0.087	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Dibromomethane	ND	0.12	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
1,1-Dichloroethane	0.30	0.11	1.0	J	µg/L	1	2/25/2016 8:29:22 PM	R32418
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
2-Hexanone	ND	0.36	10		µg/L	1	2/25/2016 8:29:22 PM	R32418
Isopropylbenzene	ND	0.098	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	2/25/2016 8:29:22 PM	R32418
Methylene Chloride	ND	0.063	3.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
n-Butylbenzene	ND	0.16	3.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
n-Propylbenzene	ND	0.13	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Styrene	ND	0.095	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Vinyl chloride	ND	0.063	1.0		µg/L	1	2/25/2016 8:29:22 PM	R32418
Xylenes, Total	ND	0.32	1.5		µg/L	1	2/25/2016 8:29:22 PM	R32418
Surr: 1,2-Dichloroethane-d4	95.4	0	70-130		%Rec	1	2/25/2016 8:29:22 PM	R32418

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 11:00:00 AM
Lab ID: 1602A45-002
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 4-Bromofluorobenzene	110	0	70-130		%Rec	1	2/25/2016 8:29:22 PM	R32418
Surr: Dibromofluoromethane	96.1	0	70-130		%Rec	1	2/25/2016 8:29:22 PM	R32418
Surr: Toluene-d8	106	0	70-130		%Rec	1	2/25/2016 8:29:22 PM	R32418

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 12:25:00 PM
Lab ID: 1602A45-003
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	1.1	0.69	1.0		mg/L	1	2/26/2016 1:13:42 PM	23932
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	2/26/2016 1:13:42 PM	23932
Surr: DNOP	94.4	0	70-141		%Rec	1	2/26/2016 1:13:42 PM	23932
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	14	0.51	1.0		mg/L	20	2/25/2016 4:59:51 PM	R32416
Surr: BFB	99.4	0	49.5-130		%Rec	20	2/25/2016 4:59:51 PM	R32416
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.12	0.023	0.10		mg/L	1	2/25/2016 10:58:27 PM	R32424
Chloride	670	1.4	25		mg/L	50	3/1/2016 5:05:02 PM	R32498
Bromide	ND	0.032	0.10		mg/L	1	2/25/2016 10:58:27 PM	R32424
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	2/25/2016 10:58:27 PM	R32424
Sulfate	31	1.3	10		mg/L	20	2/25/2016 11:10:51 PM	R32424
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	2/29/2016 2:46:24 PM	R32480
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.28	0.0013	0.0020		mg/L	1	3/2/2016 3:55:49 PM	A32539
Cadmium	ND	0.00075	0.0020		mg/L	1	3/2/2016 3:55:49 PM	A32539
Calcium	120	1.3	5.0		mg/L	5	3/2/2016 3:57:43 PM	A32539
Chromium	ND	0.0018	0.0060		mg/L	1	3/2/2016 3:55:49 PM	A32539
Copper	ND	0.0040	0.0060		mg/L	1	3/2/2016 3:55:49 PM	A32539
Iron	0.46	0.0091	0.020	*	mg/L	1	3/2/2016 3:55:49 PM	A32539
Magnesium	23	0.013	1.0		mg/L	1	3/2/2016 3:55:49 PM	A32539
Manganese	2.9	0.0016	0.010	*	mg/L	5	3/2/2016 3:57:43 PM	A32539
Potassium	0.91	0.18	1.0	J	mg/L	1	3/2/2016 3:55:49 PM	A32539
Silver	ND	0.0028	0.0050		mg/L	1	3/2/2016 3:55:49 PM	A32539
Sodium	640	0.96	10		mg/L	10	3/9/2016 3:47:26 PM	B32673
Zinc	0.013	0.0028	0.010		mg/L	1	3/2/2016 3:55:49 PM	A32539
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.31	0.0011	0.0020		mg/L	1	3/2/2016 3:20:05 PM	23939
Cadmium	ND	0.00062	0.0020		mg/L	1	3/2/2016 3:20:05 PM	23939
Chromium	ND	0.0022	0.0060		mg/L	1	3/2/2016 3:20:05 PM	23939
Copper	ND	0.0051	0.0060		mg/L	1	3/2/2016 3:20:05 PM	23939
Iron	1.4	0.036	0.10	*	mg/L	5	3/9/2016 3:17:19 PM	23939
Manganese	3.1	0.0076	0.010	*	mg/L	5	3/9/2016 3:17:19 PM	23939
Silver	ND	0.0021	0.0050		mg/L	1	3/2/2016 3:20:05 PM	23939
Zinc	0.0048	0.0039	0.010	J	mg/L	1	3/7/2016 3:00:59 PM	24075
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0036	0.000065	0.0010		mg/L	1	3/10/2016 4:52:12 PM	B32730

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 12:25:00 PM
Lab ID: 1602A45-003
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00027	0.000026	0.00050	J	mg/L	1	3/10/2016 4:52:12 PM	B32730
Selenium	0.0033	0.00097	0.0050	J	mg/L	5	3/15/2016 3:25:20 PM	B32805
Uranium	0.030	0.000024	0.0025		mg/L	5	3/15/2016 3:25:20 PM	B32805
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0028	0.00029	0.0010		mg/L	1	3/9/2016 2:44:08 PM	24075
Lead	0.0028	0.000047	0.00050		mg/L	1	3/9/2016 2:44:08 PM	24075
Selenium	0.0024	0.00062	0.0050	J	mg/L	5	3/9/2016 3:44:28 PM	24075
Uranium	0.029	0.000025	0.0025		mg/L	5	3/9/2016 3:44:28 PM	24075
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000071	0.000053	0.00020	J	mg/L	1	2/26/2016 12:46:04 PM	23952
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Acenaphthylene	ND	7.2	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Aniline	ND	9.8	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Anthracene	ND	6.6	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Azobenzene	ND	9.3	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Benzoic acid	ND	9.8	20		µg/L	1	3/2/2016 4:42:17 PM	23981
Benzyl alcohol	ND	8.0	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/2/2016 4:42:17 PM	23981
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Carbazole	ND	7.2	10		µg/L	1	3/2/2016 4:42:17 PM	23981
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/2/2016 4:42:17 PM	23981
4-Chloroaniline	ND	7.1	10		µg/L	1	3/2/2016 4:42:17 PM	23981
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/2/2016 4:42:17 PM	23981
2-Chlorophenol	ND	8.7	10		µg/L	1	3/2/2016 4:42:17 PM	23981
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Chrysene	ND	6.6	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/2/2016 4:42:17 PM	23981

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 12:25:00 PM
Lab ID: 1602A45-003
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Dibenzofuran	ND	8.6	10		µg/L	1	3/2/2016 4:42:17 PM	23981
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/2/2016 4:42:17 PM	23981
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/2/2016 4:42:17 PM	23981
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/2/2016 4:42:17 PM	23981
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Diethyl phthalate	ND	8.2	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/2/2016 4:42:17 PM	23981
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/2/2016 4:42:17 PM	23981
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/2/2016 4:42:17 PM	23981
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/2/2016 4:42:17 PM	23981
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/2/2016 4:42:17 PM	23981
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/2/2016 4:42:17 PM	23981
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Fluoranthene	ND	6.1	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Fluorene	ND	7.2	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Hexachloroethane	ND	5.8	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Isophorone	ND	8.1	10		µg/L	1	3/2/2016 4:42:17 PM	23981
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/2/2016 4:42:17 PM	23981
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/2/2016 4:42:17 PM	23981
2-Methylphenol	ND	8.2	10		µg/L	1	3/2/2016 4:42:17 PM	23981
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/2/2016 4:42:17 PM	23981
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/2/2016 4:42:17 PM	23981
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/2/2016 4:42:17 PM	23981
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Naphthalene	ND	5.9	10		µg/L	1	3/2/2016 4:42:17 PM	23981
2-Nitroaniline	ND	9.0	10		µg/L	1	3/2/2016 4:42:17 PM	23981
3-Nitroaniline	ND	8.8	10		µg/L	1	3/2/2016 4:42:17 PM	23981
4-Nitroaniline	ND	9.1	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Nitrobenzene	ND	7.8	10		µg/L	1	3/2/2016 4:42:17 PM	23981
2-Nitrophenol	ND	7.6	10		µg/L	1	3/2/2016 4:42:17 PM	23981
4-Nitrophenol	ND	6.7	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Pentachlorophenol	ND	7.6	20		µg/L	1	3/2/2016 4:42:17 PM	23981
Phenanthrene	ND	6.8	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Phenol	ND	5.1	10		µg/L	1	3/2/2016 4:42:17 PM	23981

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 12:25:00 PM
Lab ID: 1602A45-003
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Pyridine	ND	6.7	10		µg/L	1	3/2/2016 4:42:17 PM	23981
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/2/2016 4:42:17 PM	23981
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/2/2016 4:42:17 PM	23981
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/2/2016 4:42:17 PM	23981
Surr: 2-Fluorophenol	53.7	0	4.63-113		%Rec	1	3/2/2016 4:42:17 PM	23981
Surr: Phenol-d5	38.9	0	4.13-124		%Rec	1	3/2/2016 4:42:17 PM	23981
Surr: 2,4,6-Tribromophenol	75.0	0	5.14-132		%Rec	1	3/2/2016 4:42:17 PM	23981
Surr: Nitrobenzene-d5	77.1	0	9.13-140		%Rec	1	3/2/2016 4:42:17 PM	23981
Surr: 2-Fluorobiphenyl	89.5	0	10.8-132		%Rec	1	3/2/2016 4:42:17 PM	23981
Surr: 4-Terphenyl-d14	97.8	0	12.9-107		%Rec	1	3/2/2016 4:42:17 PM	23981
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	1200	4.8	50		µg/L	50	2/25/2016 8:57:35 PM	R32418
Toluene	11	0.45	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
Ethylbenzene	190	0.56	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
Methyl tert-butyl ether (MTBE)	200	1.1	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
1,2,4-Trimethylbenzene	3.0	0.52	5.0	J	µg/L	5	2/25/2016 9:25:59 PM	R32418
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
1,2-Dichloroethane (EDC)	13	0.26	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
Naphthalene	7.0	0.42	10	J	µg/L	5	2/25/2016 9:25:59 PM	R32418
1-Methylnaphthalene	4.5	1.0	20	J	µg/L	5	2/25/2016 9:25:59 PM	R32418
2-Methylnaphthalene	ND	0.79	20		µg/L	5	2/25/2016 9:25:59 PM	R32418
Acetone	ND	4.4	50		µg/L	5	2/25/2016 9:25:59 PM	R32418
Bromobenzene	ND	0.40	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
Bromodichloromethane	ND	0.49	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
Bromoform	ND	0.51	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
Bromomethane	ND	3.9	15		µg/L	5	2/25/2016 9:25:59 PM	R32418
2-Butanone	ND	1.6	50		µg/L	5	2/25/2016 9:25:59 PM	R32418
Carbon disulfide	ND	3.0	50		µg/L	5	2/25/2016 9:25:59 PM	R32418
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
Chlorobenzene	ND	0.52	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
Chloroethane	ND	0.73	10		µg/L	5	2/25/2016 9:25:59 PM	R32418
Chloroform	ND	0.44	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
Chloromethane	ND	1.1	15		µg/L	5	2/25/2016 9:25:59 PM	R32418
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
cis-1,2-DCE	45	0.62	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 12:25:00 PM
Lab ID: 1602A45-003 **Matrix:** AQUEOUS **Received Date:** 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	2/25/2016 9:25:59 PM	R32418
Dibromochloromethane	ND	0.43	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
Dibromomethane	ND	0.60	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
1,1-Dichloroethane	300	0.54	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
1,1-Dichloroethene	120	0.38	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
2,2-Dichloropropane	ND	0.60	10		µg/L	5	2/25/2016 9:25:59 PM	R32418
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
2-Hexanone	ND	1.8	50		µg/L	5	2/25/2016 9:25:59 PM	R32418
Isopropylbenzene	47	0.49	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	2/25/2016 9:25:59 PM	R32418
Methylene Chloride	ND	0.31	15		µg/L	5	2/25/2016 9:25:59 PM	R32418
n-Butylbenzene	16	0.80	15		µg/L	5	2/25/2016 9:25:59 PM	R32418
n-Propylbenzene	55	0.66	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
sec-Butylbenzene	5.6	0.54	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
Styrene	ND	0.48	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	2/25/2016 9:25:59 PM	R32418
Tetrachloroethene (PCE)	2.3	0.76	5.0	J	µg/L	5	2/25/2016 9:25:59 PM	R32418
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
1,1,1-Trichloroethane	46	0.32	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
1,1,2-Trichloroethane	1.4	0.38	5.0	J	µg/L	5	2/25/2016 9:25:59 PM	R32418
Trichloroethene (TCE)	29	0.88	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	2/25/2016 9:25:59 PM	R32418
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	2/25/2016 9:25:59 PM	R32418
Vinyl chloride	3.4	0.32	5.0	J	µg/L	5	2/25/2016 9:25:59 PM	R32418
Xylenes, Total	6.4	1.6	7.5	J	µg/L	5	2/25/2016 9:25:59 PM	R32418
Surr: 1,2-Dichloroethane-d4	93.4	0	70-130		%Rec	5	2/25/2016 9:25:59 PM	R32418

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 12:25:00 PM
Lab ID: 1602A45-003
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 4-Bromofluorobenzene	106	0	70-130		%Rec	5	2/25/2016 9:25:59 PM	R32418
Surr: Dibromofluoromethane	93.4	0	70-130		%Rec	5	2/25/2016 9:25:59 PM	R32418
Surr: Toluene-d8	106	0	70-130		%Rec	5	2/25/2016 9:25:59 PM	R32418

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1602A45-004
Matrix: TRIP BLANK
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	2/25/2016 5:24:17 PM	R32416
Surr: BFB	83.9	0	49.5-130		%Rec	1	2/25/2016 5:24:17 PM	R32416
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Toluene	ND	0.089	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Ethylbenzene	ND	0.11	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Naphthalene	ND	0.083	2.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Acetone	ND	0.88	10		µg/L	1	2/25/2016 11:47:39 PM	R32418
Bromobenzene	ND	0.080	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Bromodichloromethane	ND	0.098	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Bromoform	ND	0.10	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Bromomethane	ND	0.78	3.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
2-Butanone	ND	0.32	10		µg/L	1	2/25/2016 11:47:39 PM	R32418
Carbon disulfide	ND	0.60	10		µg/L	1	2/25/2016 11:47:39 PM	R32418
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Chlorobenzene	ND	0.10	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Chloroethane	ND	0.15	2.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Chloroform	ND	0.089	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Chloromethane	ND	0.21	3.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Dibromochloromethane	ND	0.087	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Dibromomethane	ND	0.12	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1602A45-004
Matrix: TRIP BLANK
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
2-Hexanone	ND	0.36	10		µg/L	1	2/25/2016 11:47:39 PM	R32418
Isopropylbenzene	ND	0.098	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	2/25/2016 11:47:39 PM	R32418
Methylene Chloride	ND	0.063	3.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
n-Butylbenzene	ND	0.16	3.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
n-Propylbenzene	ND	0.13	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Styrene	ND	0.095	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Vinyl chloride	ND	0.063	1.0		µg/L	1	2/25/2016 11:47:39 PM	R32418
Xylenes, Total	ND	0.32	1.5		µg/L	1	2/25/2016 11:47:39 PM	R32418
Surr: 1,2-Dichloroethane-d4	95.1	0	70-130		%Rec	1	2/25/2016 11:47:39 PM	R32418
Surr: 4-Bromofluorobenzene	109	0	70-130		%Rec	1	2/25/2016 11:47:39 PM	R32418
Surr: Dibromofluoromethane	96.2	0	70-130		%Rec	1	2/25/2016 11:47:39 PM	R32418
Surr: Toluene-d8	102	0	70-130		%Rec	1	2/25/2016 11:47:39 PM	R32418

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Lab ID: 1602A45-005
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	2/25/2016 7:56:29 PM	23932
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	2/25/2016 7:56:29 PM	23932
Surr: DNOP	151	0	70-141	S	%Rec	1	2/25/2016 7:56:29 PM	23932
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.10	0.025	0.050		mg/L	1	2/25/2016 5:48:45 PM	R32416
Surr: BFB	91.7	0	49.5-130		%Rec	1	2/25/2016 5:48:45 PM	R32416
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.023	0.10		mg/L	1	2/25/2016 11:23:16 PM	R32424
Chloride	830	2.7	50		mg/L	100	3/1/2016 5:17:26 PM	R32498
Bromide	3.0	0.65	2.0		mg/L	20	2/25/2016 11:35:41 PM	R32424
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	2/25/2016 11:23:16 PM	R32424
Sulfate	68	1.3	10		mg/L	20	2/25/2016 11:35:41 PM	R32424
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	2/29/2016 2:58:48 PM	R32480
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.12	0.0013	0.0020		mg/L	1	3/2/2016 3:59:45 PM	A32539
Cadmium	ND	0.00075	0.0020		mg/L	1	3/2/2016 3:59:45 PM	A32539
Calcium	160	1.3	5.0		mg/L	5	3/2/2016 4:01:42 PM	A32539
Chromium	ND	0.0018	0.0060		mg/L	1	3/2/2016 3:59:45 PM	A32539
Copper	ND	0.0040	0.0060		mg/L	1	3/2/2016 3:59:45 PM	A32539
Iron	0.011	0.0091	0.020	J	mg/L	1	3/2/2016 3:59:45 PM	A32539
Magnesium	35	0.013	1.0		mg/L	1	3/2/2016 3:59:45 PM	A32539
Manganese	0.020	0.00032	0.0020		mg/L	1	3/2/2016 3:59:45 PM	A32539
Potassium	1.2	0.18	1.0		mg/L	1	3/2/2016 3:59:45 PM	A32539
Silver	ND	0.0028	0.0050		mg/L	1	3/2/2016 3:59:45 PM	A32539
Sodium	560	0.96	10		mg/L	10	3/9/2016 3:49:33 PM	B32673
Zinc	0.010	0.0028	0.010		mg/L	1	3/2/2016 3:59:45 PM	A32539
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.18	0.0011	0.0020		mg/L	1	3/2/2016 3:22:03 PM	23939
Cadmium	ND	0.00062	0.0020		mg/L	1	3/2/2016 3:22:03 PM	23939
Chromium	0.0023	0.0022	0.0060	J	mg/L	1	3/2/2016 3:22:03 PM	23939
Copper	ND	0.0051	0.0060		mg/L	1	3/2/2016 3:22:03 PM	23939
Iron	2.5	0.036	0.10	*	mg/L	5	3/9/2016 3:19:15 PM	23939
Manganese	0.13	0.0015	0.0020	*	mg/L	1	3/2/2016 3:22:03 PM	23939
Silver	ND	0.0021	0.0050		mg/L	1	3/2/2016 3:22:03 PM	23939
Zinc	0.011	0.0039	0.010		mg/L	1	3/7/2016 3:04:54 PM	24075
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0014	0.00032	0.0050	J	mg/L	5	3/15/2016 3:31:26 PM	B32805

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.000084	0.000026	0.00050	J	mg/L	1	3/15/2016 3:28:23 PM	B32805
Selenium	0.0036	0.00097	0.0050	J	mg/L	5	3/15/2016 3:31:26 PM	B32805
Uranium	0.046	0.000024	0.0025	*	mg/L	5	3/15/2016 3:31:26 PM	B32805
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.0015	0.0050		mg/L	5	3/9/2016 3:50:29 PM	24075
Lead	0.0036	0.000047	0.00050		mg/L	1	3/9/2016 2:50:09 PM	24075
Selenium	0.0026	0.00062	0.0050	J	mg/L	5	3/9/2016 3:50:29 PM	24075
Uranium	0.045	0.000025	0.0025	*	mg/L	5	3/9/2016 3:50:29 PM	24075
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000068	0.000053	0.00020	J	mg/L	1	2/26/2016 12:52:25 PM	23952
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Acenaphthylene	ND	7.2	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Aniline	ND	9.8	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Anthracene	ND	6.6	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Azobenzene	ND	9.3	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Benzoic acid	ND	9.8	20		µg/L	1	3/2/2016 5:12:04 PM	23981
Benzyl alcohol	ND	8.0	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/2/2016 5:12:04 PM	23981
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Carbazole	ND	7.2	10		µg/L	1	3/2/2016 5:12:04 PM	23981
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/2/2016 5:12:04 PM	23981
4-Chloroaniline	ND	7.1	10		µg/L	1	3/2/2016 5:12:04 PM	23981
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/2/2016 5:12:04 PM	23981
2-Chlorophenol	ND	8.7	10		µg/L	1	3/2/2016 5:12:04 PM	23981
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Chrysene	ND	6.6	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/2/2016 5:12:04 PM	23981

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Lab ID: 1602A45-005
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Dibenzofuran	ND	8.6	10		µg/L	1	3/2/2016 5:12:04 PM	23981
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/2/2016 5:12:04 PM	23981
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/2/2016 5:12:04 PM	23981
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/2/2016 5:12:04 PM	23981
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Diethyl phthalate	ND	8.2	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/2/2016 5:12:04 PM	23981
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/2/2016 5:12:04 PM	23981
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/2/2016 5:12:04 PM	23981
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/2/2016 5:12:04 PM	23981
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/2/2016 5:12:04 PM	23981
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/2/2016 5:12:04 PM	23981
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Fluoranthene	ND	6.1	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Fluorene	ND	7.2	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Hexachloroethane	ND	5.8	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Isophorone	ND	8.1	10		µg/L	1	3/2/2016 5:12:04 PM	23981
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/2/2016 5:12:04 PM	23981
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/2/2016 5:12:04 PM	23981
2-Methylphenol	ND	8.2	10		µg/L	1	3/2/2016 5:12:04 PM	23981
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/2/2016 5:12:04 PM	23981
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/2/2016 5:12:04 PM	23981
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/2/2016 5:12:04 PM	23981
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Naphthalene	ND	5.9	10		µg/L	1	3/2/2016 5:12:04 PM	23981
2-Nitroaniline	ND	9.0	10		µg/L	1	3/2/2016 5:12:04 PM	23981
3-Nitroaniline	ND	8.8	10		µg/L	1	3/2/2016 5:12:04 PM	23981
4-Nitroaniline	ND	9.1	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Nitrobenzene	ND	7.8	10		µg/L	1	3/2/2016 5:12:04 PM	23981
2-Nitrophenol	ND	7.6	10		µg/L	1	3/2/2016 5:12:04 PM	23981
4-Nitrophenol	ND	6.7	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Pentachlorophenol	ND	7.6	20		µg/L	1	3/2/2016 5:12:04 PM	23981
Phenanthrene	ND	6.8	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Phenol	ND	5.1	10		µg/L	1	3/2/2016 5:12:04 PM	23981

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EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Pyridine	ND	6.7	10		µg/L	1	3/2/2016 5:12:04 PM	23981
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/2/2016 5:12:04 PM	23981
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/2/2016 5:12:04 PM	23981
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/2/2016 5:12:04 PM	23981
Surr: 2-Fluorophenol	38.5	0	4.63-113		%Rec	1	3/2/2016 5:12:04 PM	23981
Surr: Phenol-d5	34.3	0	4.13-124		%Rec	1	3/2/2016 5:12:04 PM	23981
Surr: 2,4,6-Tribromophenol	27.1	0	5.14-132		%Rec	1	3/2/2016 5:12:04 PM	23981
Surr: Nitrobenzene-d5	77.8	0	9.13-140		%Rec	1	3/2/2016 5:12:04 PM	23981
Surr: 2-Fluorobiphenyl	81.2	0	10.8-132		%Rec	1	3/2/2016 5:12:04 PM	23981
Surr: 4-Terphenyl-d14	95.4	0	12.9-107		%Rec	1	3/2/2016 5:12:04 PM	23981
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	0.62	0.096	1.0	J	µg/L	1	2/26/2016 12:15:58 AM	R32418
Toluene	ND	0.089	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
Ethylbenzene	ND	0.11	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
Methyl tert-butyl ether (MTBE)	61	0.21	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
1,2-Dichloroethane (EDC)	23	0.053	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
Naphthalene	ND	0.083	2.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
Acetone	ND	0.88	10		µg/L	1	2/26/2016 12:15:58 AM	R32418
Bromobenzene	ND	0.080	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
Bromodichloromethane	ND	0.098	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
Bromoform	ND	0.10	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
Bromomethane	ND	0.78	3.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
2-Butanone	ND	0.32	10		µg/L	1	2/26/2016 12:15:58 AM	R32418
Carbon disulfide	ND	0.60	10		µg/L	1	2/26/2016 12:15:58 AM	R32418
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
Chlorobenzene	ND	0.10	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
Chloroethane	ND	0.15	2.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
Chloroform	0.40	0.089	1.0	J	µg/L	1	2/26/2016 12:15:58 AM	R32418
Chloromethane	ND	0.21	3.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
cis-1,2-DCE	1.6	0.12	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-31
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 1:45:00 PM
Lab ID: 1602A45-005 **Matrix:** AQUEOUS **Received Date:** 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
Dibromochloromethane	ND	0.087	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
Dibromomethane	ND	0.12	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
1,1-Dichloroethane	34	0.11	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
1,1-Dichloroethene	57	0.38	5.0		µg/L	5	2/26/2016 11:49:44 AM	R32445
1,2-Dichloropropane	0.20	0.047	1.0	J	µg/L	1	2/26/2016 12:15:58 AM	R32418
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
2-Hexanone	ND	0.36	10		µg/L	1	2/26/2016 12:15:58 AM	R32418
Isopropylbenzene	0.84	0.098	1.0	J	µg/L	1	2/26/2016 12:15:58 AM	R32418
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	2/26/2016 12:15:58 AM	R32418
Methylene Chloride	ND	0.063	3.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
n-Butylbenzene	ND	0.16	3.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
n-Propylbenzene	ND	0.13	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
Styrene	ND	0.095	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
1,1,1-Trichloroethane	5.6	0.063	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
1,1,2-Trichloroethane	2.4	0.077	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
Trichloroethene (TCE)	3.6	0.18	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	2/26/2016 12:15:58 AM	R32418
Vinyl chloride	0.26	0.063	1.0	J	µg/L	1	2/26/2016 12:15:58 AM	R32418
Xylenes, Total	ND	0.32	1.5		µg/L	1	2/26/2016 12:15:58 AM	R32418
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	2/26/2016 12:15:58 AM	R32418

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-31
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 1:45:00 PM
Lab ID: 1602A45-005
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 4-Bromofluorobenzene	106	0	70-130		%Rec	1	2/26/2016 12:15:58 AM	R32418
Surr: Dibromofluoromethane	98.2	0	70-130		%Rec	1	2/26/2016 12:15:58 AM	R32418
Surr: Toluene-d8	105	0	70-130		%Rec	1	2/26/2016 12:15:58 AM	R32418

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-40
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 2:50:00 PM
Lab ID: 1602A45-006 **Matrix:** AQUEOUS **Received Date:** 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	2/25/2016 8:18:04 PM	23932
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	2/25/2016 8:18:04 PM	23932
Surr: DNOP	157	0	70-141	S	%Rec	1	2/25/2016 8:18:04 PM	23932
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	2/25/2016 6:13:07 PM	R32416
Surr: BFB	87.5	0	49.5-130		%Rec	1	2/25/2016 6:13:07 PM	R32416
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.023	0.10		mg/L	1	2/25/2016 11:48:05 PM	R32424
Chloride	4900	14	250		mg/L	500	3/1/2016 5:29:51 PM	R32498
Bromide	6.6	0.65	2.0		mg/L	20	2/26/2016 12:00:30 AM	R32424
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	2/25/2016 11:48:05 PM	R32424
Sulfate	520	1.3	10		mg/L	20	2/26/2016 12:00:30 AM	R32424
Nitrate+Nitrite as N	ND	4.2	10		mg/L	50	3/8/2016 6:36:25 PM	A32663
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.064	0.0013	0.0020		mg/L	1	3/2/2016 4:03:39 PM	A32539
Cadmium	ND	0.00075	0.0020		mg/L	1	3/2/2016 4:03:39 PM	A32539
Calcium	350	1.3	5.0		mg/L	5	3/2/2016 4:11:52 PM	A32539
Chromium	ND	0.0018	0.0060		mg/L	1	3/2/2016 4:03:39 PM	A32539
Copper	ND	0.0040	0.0060		mg/L	1	3/2/2016 4:03:39 PM	A32539
Iron	0.093	0.0091	0.020		mg/L	1	3/2/2016 4:03:39 PM	A32539
Magnesium	68	0.013	1.0		mg/L	1	3/2/2016 4:03:39 PM	A32539
Manganese	0.041	0.00032	0.0020		mg/L	1	3/2/2016 4:03:39 PM	A32539
Potassium	8.1	0.18	1.0		mg/L	1	3/2/2016 4:03:39 PM	A32539
Silver	ND	0.0028	0.0050		mg/L	1	3/2/2016 4:03:39 PM	A32539
Sodium	2500	4.8	50		mg/L	50	3/9/2016 3:51:40 PM	B32673
Zinc	0.016	0.0028	0.010		mg/L	1	3/2/2016 4:03:39 PM	A32539
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.14	0.0011	0.0020		mg/L	1	3/2/2016 3:23:43 PM	23939
Cadmium	ND	0.00062	0.0020		mg/L	1	3/2/2016 3:23:43 PM	23939
Chromium	ND	0.0022	0.0060		mg/L	1	3/2/2016 3:23:43 PM	23939
Copper	ND	0.0051	0.0060		mg/L	1	3/2/2016 3:23:43 PM	23939
Iron	2.0	0.036	0.10	*	mg/L	5	3/9/2016 3:21:11 PM	23939
Manganese	0.17	0.0015	0.0020	*	mg/L	1	3/2/2016 3:23:43 PM	23939
Silver	ND	0.0021	0.0050		mg/L	1	3/2/2016 3:23:43 PM	23939
Zinc	0.0099	0.0039	0.010	J	mg/L	1	3/7/2016 3:08:34 PM	24075
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	ND	0.010	0.010		mg/L	10	3/15/2016 4:05:08 PM	B32805

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-40
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 2:50:00 PM
Lab ID: 1602A45-006
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00053	0.00013	0.0025	J	mg/L	5	3/15/2016 3:43:44 PM	B32805
Selenium	ND	0.010	0.010		mg/L	10	3/15/2016 4:05:08 PM	B32805
Uranium	0.077	0.000024	0.0025	*	mg/L	5	3/15/2016 3:43:44 PM	B32805
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.0015	0.0050		mg/L	5	3/9/2016 3:59:31 PM	24075
Lead	0.0026	0.00024	0.0025		mg/L	5	3/9/2016 3:59:31 PM	24075
Selenium	0.0031	0.00062	0.0050	J	mg/L	5	3/9/2016 3:59:31 PM	24075
Uranium	0.064	0.000025	0.0025	*	mg/L	5	3/9/2016 3:59:31 PM	24075
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000068	0.000053	0.00020	J	mg/L	1	2/26/2016 12:54:30 PM	23952
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Acenaphthylene	ND	7.2	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Aniline	ND	9.8	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Anthracene	ND	6.6	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Azobenzene	ND	9.3	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Benzoic acid	ND	9.8	20		µg/L	1	3/2/2016 5:41:44 PM	23981
Benzyl alcohol	ND	8.0	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/2/2016 5:41:44 PM	23981
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Carbazole	ND	7.2	10		µg/L	1	3/2/2016 5:41:44 PM	23981
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/2/2016 5:41:44 PM	23981
4-Chloroaniline	ND	7.1	10		µg/L	1	3/2/2016 5:41:44 PM	23981
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/2/2016 5:41:44 PM	23981
2-Chlorophenol	ND	8.7	10		µg/L	1	3/2/2016 5:41:44 PM	23981
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Chrysene	ND	6.6	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/2/2016 5:41:44 PM	23981

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-40
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Collection Date: 2/23/2016 2:50:00 PM
Lab ID: 1602A45-006
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Dibenzofuran	ND	8.6	10		µg/L	1	3/2/2016 5:41:44 PM	23981
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/2/2016 5:41:44 PM	23981
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/2/2016 5:41:44 PM	23981
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/2/2016 5:41:44 PM	23981
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Diethyl phthalate	ND	8.2	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/2/2016 5:41:44 PM	23981
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/2/2016 5:41:44 PM	23981
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/2/2016 5:41:44 PM	23981
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/2/2016 5:41:44 PM	23981
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/2/2016 5:41:44 PM	23981
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/2/2016 5:41:44 PM	23981
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Fluoranthene	ND	6.1	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Fluorene	ND	7.2	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Hexachloroethane	ND	5.8	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Isophorone	ND	8.1	10		µg/L	1	3/2/2016 5:41:44 PM	23981
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/2/2016 5:41:44 PM	23981
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/2/2016 5:41:44 PM	23981
2-Methylphenol	ND	8.2	10		µg/L	1	3/2/2016 5:41:44 PM	23981
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/2/2016 5:41:44 PM	23981
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/2/2016 5:41:44 PM	23981
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/2/2016 5:41:44 PM	23981
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Naphthalene	ND	5.9	10		µg/L	1	3/2/2016 5:41:44 PM	23981
2-Nitroaniline	ND	9.0	10		µg/L	1	3/2/2016 5:41:44 PM	23981
3-Nitroaniline	ND	8.8	10		µg/L	1	3/2/2016 5:41:44 PM	23981
4-Nitroaniline	ND	9.1	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Nitrobenzene	ND	7.8	10		µg/L	1	3/2/2016 5:41:44 PM	23981
2-Nitrophenol	ND	7.6	10		µg/L	1	3/2/2016 5:41:44 PM	23981
4-Nitrophenol	ND	6.7	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Pentachlorophenol	ND	7.6	20		µg/L	1	3/2/2016 5:41:44 PM	23981
Phenanthrene	ND	6.8	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Phenol	ND	5.1	10		µg/L	1	3/2/2016 5:41:44 PM	23981

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-40
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 2:50:00 PM
Lab ID: 1602A45-006 **Matrix:** AQUEOUS **Received Date:** 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Pyridine	ND	6.7	10		µg/L	1	3/2/2016 5:41:44 PM	23981
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/2/2016 5:41:44 PM	23981
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/2/2016 5:41:44 PM	23981
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/2/2016 5:41:44 PM	23981
Surr: 2-Fluorophenol	51.5	0	4.63-113		%Rec	1	3/2/2016 5:41:44 PM	23981
Surr: Phenol-d5	37.7	0	4.13-124		%Rec	1	3/2/2016 5:41:44 PM	23981
Surr: 2,4,6-Tribromophenol	49.0	0	5.14-132		%Rec	1	3/2/2016 5:41:44 PM	23981
Surr: Nitrobenzene-d5	74.2	0	9.13-140		%Rec	1	3/2/2016 5:41:44 PM	23981
Surr: 2-Fluorobiphenyl	74.0	0	10.8-132		%Rec	1	3/2/2016 5:41:44 PM	23981
Surr: 4-Terphenyl-d14	87.5	0	12.9-107		%Rec	1	3/2/2016 5:41:44 PM	23981
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Toluene	ND	0.089	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Ethylbenzene	ND	0.11	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Methyl tert-butyl ether (MTBE)	0.61	0.21	1.0	J	µg/L	1	2/26/2016 12:44:12 AM	R32418
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
1,2-Dichloroethane (EDC)	0.37	0.053	1.0	J	µg/L	1	2/26/2016 12:44:12 AM	R32418
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Naphthalene	ND	0.083	2.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Acetone	ND	0.88	10		µg/L	1	2/26/2016 12:44:12 AM	R32418
Bromobenzene	ND	0.080	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Bromodichloromethane	ND	0.098	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Bromoform	ND	0.10	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Bromomethane	ND	0.78	3.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
2-Butanone	ND	0.32	10		µg/L	1	2/26/2016 12:44:12 AM	R32418
Carbon disulfide	ND	0.60	10		µg/L	1	2/26/2016 12:44:12 AM	R32418
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Chlorobenzene	ND	0.10	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Chloroethane	ND	0.15	2.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Chloroform	0.19	0.089	1.0	J	µg/L	1	2/26/2016 12:44:12 AM	R32418
Chloromethane	ND	0.21	3.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-40
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 2:50:00 PM
Lab ID: 1602A45-006 **Matrix:** AQUEOUS **Received Date:** 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Dibromochloromethane	ND	0.087	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Dibromomethane	ND	0.12	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
1,1-Dichloroethane	0.82	0.11	1.0	J	µg/L	1	2/26/2016 12:44:12 AM	R32418
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
2-Hexanone	ND	0.36	10		µg/L	1	2/26/2016 12:44:12 AM	R32418
Isopropylbenzene	ND	0.098	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	2/26/2016 12:44:12 AM	R32418
Methylene Chloride	ND	0.063	3.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
n-Butylbenzene	ND	0.16	3.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
n-Propylbenzene	ND	0.13	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Styrene	ND	0.095	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Vinyl chloride	ND	0.063	1.0		µg/L	1	2/26/2016 12:44:12 AM	R32418
Xylenes, Total	ND	0.32	1.5		µg/L	1	2/26/2016 12:44:12 AM	R32418
Surr: 1,2-Dichloroethane-d4	94.9	0	70-130		%Rec	1	2/26/2016 12:44:12 AM	R32418

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-40
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 2:50:00 PM
Lab ID: 1602A45-006
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 4-Bromofluorobenzene	108	0	70-130		%Rec	1	2/26/2016 12:44:12 AM	R32418
Surr: Dibromofluoromethane	96.8	0	70-130		%Rec	1	2/26/2016 12:44:12 AM	R32418
Surr: Toluene-d8	102	0	70-130		%Rec	1	2/26/2016 12:44:12 AM	R32418

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-30
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 3:45:00 PM
Lab ID: 1602A45-007
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	2/25/2016 8:39:32 PM	23932
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	2/25/2016 8:39:32 PM	23932
Surr: DNOP	125	0	70-141		%Rec	1	2/25/2016 8:39:32 PM	23932
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.13	0.025	0.050		mg/L	1	2/25/2016 6:37:37 PM	R32416
Surr: BFB	84.2	0	49.5-130		%Rec	1	2/25/2016 6:37:37 PM	R32416
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	1.1	0.023	0.10		mg/L	1	2/26/2016 12:12:55 AM	R32424
Chloride	1100	14	250		mg/L	500	3/1/2016 6:07:05 PM	A32498
Bromide	3.2	0.65	2.0		mg/L	20	2/26/2016 12:25:20 AM	R32424
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	2/26/2016 12:12:55 AM	R32424
Sulfate	320	1.3	10		mg/L	20	2/26/2016 12:25:20 AM	R32424
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	2/29/2016 5:15:21 PM	A32480
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.046	0.0013	0.0020		mg/L	1	3/2/2016 4:13:47 PM	A32539
Cadmium	ND	0.00075	0.0020		mg/L	1	3/2/2016 4:13:47 PM	A32539
Calcium	110	1.3	5.0		mg/L	5	3/2/2016 4:15:42 PM	A32539
Chromium	ND	0.0018	0.0060		mg/L	1	3/2/2016 4:13:47 PM	A32539
Copper	ND	0.0040	0.0060		mg/L	1	3/2/2016 4:13:47 PM	A32539
Iron	0.057	0.0091	0.020		mg/L	1	3/2/2016 4:13:47 PM	A32539
Magnesium	21	0.013	1.0		mg/L	1	3/2/2016 4:13:47 PM	A32539
Manganese	0.017	0.00032	0.0020		mg/L	1	3/2/2016 4:13:47 PM	A32539
Potassium	0.53	0.18	1.0	J	mg/L	1	3/2/2016 4:13:47 PM	A32539
Silver	ND	0.0028	0.0050		mg/L	1	3/2/2016 4:13:47 PM	A32539
Sodium	1100	1.9	20		mg/L	20	3/9/2016 3:53:47 PM	B32673
Zinc	0.011	0.0028	0.010		mg/L	1	3/2/2016 4:13:47 PM	A32539
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.12	0.0011	0.0020		mg/L	1	3/2/2016 3:25:46 PM	23939
Cadmium	ND	0.00062	0.0020		mg/L	1	3/2/2016 3:25:46 PM	23939
Chromium	0.0032	0.0022	0.0060	J	mg/L	1	3/2/2016 3:25:46 PM	23939
Copper	ND	0.0051	0.0060		mg/L	1	3/2/2016 3:25:46 PM	23939
Iron	3.3	0.036	0.10	*	mg/L	5	3/9/2016 3:23:07 PM	23939
Manganese	0.18	0.0015	0.0020	*	mg/L	1	3/2/2016 3:25:46 PM	23939
Silver	ND	0.0021	0.0050		mg/L	1	3/2/2016 3:25:46 PM	23939
Zinc	0.013	0.0039	0.010		mg/L	1	3/7/2016 3:12:19 PM	24075
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	ND	0.0050	0.0050		mg/L	5	3/15/2016 3:49:50 PM	B32805

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-30
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 3:45:00 PM
Lab ID: 1602A45-007
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00036	0.00013	0.0025	J	mg/L	5	3/15/2016 3:49:50 PM	B32805
Selenium	0.0042	0.00097	0.0050	J	mg/L	5	3/15/2016 3:49:50 PM	B32805
Uranium	0.029	0.000024	0.0025		mg/L	5	3/15/2016 3:49:50 PM	B32805
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0017	0.00029	0.0010		mg/L	1	3/9/2016 3:08:16 PM	24075
Lead	0.0041	0.000047	0.00050		mg/L	1	3/9/2016 3:08:16 PM	24075
Selenium	0.0031	0.00062	0.0050	J	mg/L	5	3/9/2016 4:02:31 PM	24075
Uranium	0.029	0.000025	0.0025		mg/L	5	3/9/2016 4:02:31 PM	24075
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000069	0.000053	0.00020	J	mg/L	1	2/26/2016 12:56:36 PM	23952
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Acenaphthylene	ND	7.2	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Aniline	ND	9.8	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Anthracene	ND	6.6	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Azobenzene	ND	9.3	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Benzoic acid	ND	9.8	20		µg/L	1	3/2/2016 6:11:37 PM	23981
Benzyl alcohol	ND	8.0	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/2/2016 6:11:37 PM	23981
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Carbazole	ND	7.2	10		µg/L	1	3/2/2016 6:11:37 PM	23981
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/2/2016 6:11:37 PM	23981
4-Chloroaniline	ND	7.1	10		µg/L	1	3/2/2016 6:11:37 PM	23981
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/2/2016 6:11:37 PM	23981
2-Chlorophenol	ND	8.7	10		µg/L	1	3/2/2016 6:11:37 PM	23981
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Chrysene	ND	6.6	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/2/2016 6:11:37 PM	23981

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Lab ID: 1602A45-007
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Dibenzofuran	ND	8.6	10		µg/L	1	3/2/2016 6:11:37 PM	23981
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/2/2016 6:11:37 PM	23981
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/2/2016 6:11:37 PM	23981
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/2/2016 6:11:37 PM	23981
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Diethyl phthalate	ND	8.2	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/2/2016 6:11:37 PM	23981
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/2/2016 6:11:37 PM	23981
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/2/2016 6:11:37 PM	23981
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/2/2016 6:11:37 PM	23981
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/2/2016 6:11:37 PM	23981
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/2/2016 6:11:37 PM	23981
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Fluoranthene	ND	6.1	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Fluorene	ND	7.2	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Hexachloroethane	ND	5.8	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Isophorone	ND	8.1	10		µg/L	1	3/2/2016 6:11:37 PM	23981
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/2/2016 6:11:37 PM	23981
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/2/2016 6:11:37 PM	23981
2-Methylphenol	ND	8.2	10		µg/L	1	3/2/2016 6:11:37 PM	23981
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/2/2016 6:11:37 PM	23981
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/2/2016 6:11:37 PM	23981
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/2/2016 6:11:37 PM	23981
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Naphthalene	ND	5.9	10		µg/L	1	3/2/2016 6:11:37 PM	23981
2-Nitroaniline	ND	9.0	10		µg/L	1	3/2/2016 6:11:37 PM	23981
3-Nitroaniline	ND	8.8	10		µg/L	1	3/2/2016 6:11:37 PM	23981
4-Nitroaniline	ND	9.1	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Nitrobenzene	ND	7.8	10		µg/L	1	3/2/2016 6:11:37 PM	23981
2-Nitrophenol	ND	7.6	10		µg/L	1	3/2/2016 6:11:37 PM	23981
4-Nitrophenol	ND	6.7	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Pentachlorophenol	ND	7.6	20		µg/L	1	3/2/2016 6:11:37 PM	23981
Phenanthrene	ND	6.8	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Phenol	ND	5.1	10		µg/L	1	3/2/2016 6:11:37 PM	23981

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-30
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 3:45:00 PM
Lab ID: 1602A45-007
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Pyridine	ND	6.7	10		µg/L	1	3/2/2016 6:11:37 PM	23981
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/2/2016 6:11:37 PM	23981
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/2/2016 6:11:37 PM	23981
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/2/2016 6:11:37 PM	23981
Surr: 2-Fluorophenol	53.8	0	4.63-113		%Rec	1	3/2/2016 6:11:37 PM	23981
Surr: Phenol-d5	41.9	0	4.13-124		%Rec	1	3/2/2016 6:11:37 PM	23981
Surr: 2,4,6-Tribromophenol	43.6	0	5.14-132		%Rec	1	3/2/2016 6:11:37 PM	23981
Surr: Nitrobenzene-d5	87.5	0	9.13-140		%Rec	1	3/2/2016 6:11:37 PM	23981
Surr: 2-Fluorobiphenyl	82.3	0	10.8-132		%Rec	1	3/2/2016 6:11:37 PM	23981
Surr: 4-Terphenyl-d14	104	0	12.9-107		%Rec	1	3/2/2016 6:11:37 PM	23981
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
Toluene	ND	0.089	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
Ethylbenzene	ND	0.11	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
Methyl tert-butyl ether (MTBE)	2.3	0.21	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
1,2-Dichloroethane (EDC)	6.7	0.053	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
Naphthalene	ND	0.083	2.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
Acetone	ND	0.88	10		µg/L	1	2/26/2016 1:40:43 AM	R32418
Bromobenzene	ND	0.080	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
Bromodichloromethane	ND	0.098	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
Bromoform	ND	0.10	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
Bromomethane	ND	0.78	3.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
2-Butanone	ND	0.32	10		µg/L	1	2/26/2016 1:40:43 AM	R32418
Carbon disulfide	ND	0.60	10		µg/L	1	2/26/2016 1:40:43 AM	R32418
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
Chlorobenzene	ND	0.10	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
Chloroethane	0.39	0.15	2.0	J	µg/L	1	2/26/2016 1:40:43 AM	R32418
Chloroform	0.27	0.089	1.0	J	µg/L	1	2/26/2016 1:40:43 AM	R32418
Chloromethane	ND	0.21	3.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
cis-1,2-DCE	12	0.12	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-30
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 3:45:00 PM
Lab ID: 1602A45-007
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
Dibromochloromethane	ND	0.087	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
Dibromomethane	ND	0.12	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
1,1-Dichloroethane	130	1.1	10		µg/L	10	2/26/2016 1:12:26 AM	R32418
1,1-Dichloroethene	10	0.076	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
2-Hexanone	ND	0.36	10		µg/L	1	2/26/2016 1:40:43 AM	R32418
Isopropylbenzene	ND	0.098	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	2/26/2016 1:40:43 AM	R32418
Methylene Chloride	ND	0.063	3.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
n-Butylbenzene	ND	0.16	3.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
n-Propylbenzene	ND	0.13	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
Styrene	ND	0.095	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
Tetrachloroethene (PCE)	0.65	0.15	1.0	J	µg/L	1	2/26/2016 1:40:43 AM	R32418
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
1,1,1-Trichloroethane	3.7	0.063	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
1,1,2-Trichloroethane	1.4	0.077	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
Trichloroethene (TCE)	8.0	0.18	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
Vinyl chloride	ND	0.063	1.0		µg/L	1	2/26/2016 1:40:43 AM	R32418
Xylenes, Total	ND	0.32	1.5		µg/L	1	2/26/2016 1:40:43 AM	R32418
Surr: 1,2-Dichloroethane-d4	96.0	0	70-130		%Rec	1	2/26/2016 1:40:43 AM	R32418

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-30
Project: Quarterly GW Sampling
Collection Date: 2/23/2016 3:45:00 PM
Lab ID: 1602A45-007
Matrix: AQUEOUS
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 4-Bromofluorobenzene	105	0	70-130		%Rec	1	2/26/2016 1:40:43 AM	R32418
Surr: Dibromofluoromethane	95.9	0	70-130		%Rec	1	2/26/2016 1:40:43 AM	R32418
Surr: Toluene-d8	104	0	70-130		%Rec	1	2/26/2016 1:40:43 AM	R32418

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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1602A45-008
Matrix: TRIP BLANK
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	2/25/2016 7:02:04 PM	R32416
Surr: BFB	84.0	0	49.5-130		%Rec	1	2/25/2016 7:02:04 PM	R32416
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Toluene	ND	0.089	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Ethylbenzene	ND	0.11	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Naphthalene	ND	0.083	2.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Acetone	ND	0.88	10		µg/L	1	2/26/2016 2:09:02 AM	R32418
Bromobenzene	ND	0.080	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Bromodichloromethane	ND	0.098	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Bromoform	ND	0.10	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Bromomethane	ND	0.78	3.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
2-Butanone	ND	0.32	10		µg/L	1	2/26/2016 2:09:02 AM	R32418
Carbon disulfide	ND	0.60	10		µg/L	1	2/26/2016 2:09:02 AM	R32418
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Chlorobenzene	ND	0.10	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Chloroethane	ND	0.15	2.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Chloroform	ND	0.089	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Chloromethane	ND	0.21	3.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Dibromochloromethane	ND	0.087	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Dibromomethane	ND	0.12	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1602A45-008
Matrix: TRIP BLANK
Received Date: 2/25/2016 8:16:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
2-Hexanone	ND	0.36	10		µg/L	1	2/26/2016 2:09:02 AM	R32418
Isopropylbenzene	ND	0.098	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	2/26/2016 2:09:02 AM	R32418
Methylene Chloride	ND	0.063	3.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
n-Butylbenzene	ND	0.16	3.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
n-Propylbenzene	ND	0.13	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Styrene	ND	0.095	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Vinyl chloride	ND	0.063	1.0		µg/L	1	2/26/2016 2:09:02 AM	R32418
Xylenes, Total	ND	0.32	1.5		µg/L	1	2/26/2016 2:09:02 AM	R32418
Surr: 1,2-Dichloroethane-d4	96.7	0	70-130		%Rec	1	2/26/2016 2:09:02 AM	R32418
Surr: 4-Bromofluorobenzene	109	0	70-130		%Rec	1	2/26/2016 2:09:02 AM	R32418
Surr: Dibromofluoromethane	96.0	0	70-130		%Rec	1	2/26/2016 2:09:02 AM	R32418
Surr: Toluene-d8	103	0	70-130		%Rec	1	2/26/2016 2:09:02 AM	R32418

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A45**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A32539**	RunNo: **32539**
Prep Date:	Analysis Date: **3/2/2016**	SeqNo: **995471** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A32539**	RunNo: **32539**
Prep Date:	Analysis Date: **3/2/2016**	SeqNo: **995472** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.0020	0.5000	0	94.8	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.5	85	115			
Calcium	49	1.0	50.00	0	98.3	85	115			
Chromium	0.47	0.0060	0.5000	0	94.6	85	115			
Copper	0.48	0.0060	0.5000	0	95.8	85	115			
Iron	0.47	0.020	0.5000	0	93.4	85	115			
Magnesium	50	1.0	50.00	0	99.1	85	115			
Manganese	0.46	0.0020	0.5000	0	91.9	85	115			
Potassium	48	1.0	50.00	0	95.8	85	115			
Silver	0.098	0.0050	0.1000	0	97.5	85	115			
Zinc	0.47	0.010	0.5000	0	93.6	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A32539**	RunNo: **32539**
Prep Date:	Analysis Date: **3/2/2016**	SeqNo: **995473** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0017	0.0020	0.002000	0	86.5	50	150			J
Cadmium	0.0022	0.0020	0.002000	0	108	50	150			
Calcium	0.51	1.0	0.5000	0	101	50	150			J
Chromium	0.0063	0.0060	0.006000	0	106	50	150			
Copper	0.0074	0.0060	0.006000	0	124	50	150			
Iron	0.021	0.020	0.02000	0	106	50	150			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A45**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**LLLCS-A**	SampType: **LCSLL**			TestCode: **EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID: **A32539**			RunNo: **32539**					
Prep Date:		Analysis Date: **3/2/2016**			SeqNo: **995473**		Units: **mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium		0.53	1.0	0.5000	0	107	50	150			J
Manganese		0.0021	0.0020	0.002000	0	106	50	150			
Potassium		0.55	1.0	0.5000	0	110	50	150			J
Silver		0.0048	0.0050	0.005000	0	95.8	50	150			J
Zinc		0.0049	0.010	0.005000	0	98.8	50	150			J

Sample ID	**MB-B**	SampType: **MBLK**			TestCode: **EPA Method 200.7: Dissolved Metals**					
Client ID:	**PBW**	Batch ID: **B32673**			RunNo: **32673**					
Prep Date:		Analysis Date: **3/9/2016**			SeqNo: **999902**		Units: **mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium		ND	1.0								

Sample ID	**LCS-B**	SampType: **LCS**			TestCode: **EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID: **B32673**			RunNo: **32673**					
Prep Date:		Analysis Date: **3/9/2016**			SeqNo: **999903**		Units: **mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium		53	1.0	50.00	0	105	85	115			

Sample ID	**LLLCS-B**	SampType: **LCSLL**			TestCode: **EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID: **B32673**			RunNo: **32673**					
Prep Date:		Analysis Date: **3/9/2016**			SeqNo: **999904**		Units: **mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium		0.49	1.0	0.5000	0	97.1	50	150			J

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A45**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-23939**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**23939**	RunNo:	**32475**					
Prep Date:	**2/25/2016**	Analysis Date:	**3/1/2016**	SeqNo:	**993256**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	0.012	0.020								J
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID	**LCS-23939**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID:	**23939**	RunNo:	**32475**					
Prep Date:	**2/25/2016**	Analysis Date:	**3/1/2016**	SeqNo:	**993257**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.5	85	115			
Cadmium	0.52	0.0020	0.5000	0	103	85	115			
Chromium	0.50	0.0060	0.5000	0	99.3	85	115			
Copper	0.49	0.0060	0.5000	0	98.1	85	115			
Iron	0.50	0.020	0.5000	0	99.6	85	115			
Manganese	0.48	0.0020	0.5000	0	95.9	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			

Sample ID	**LLLCS-23939**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID:	**23939**	RunNo:	**32475**					
Prep Date:	**2/25/2016**	Analysis Date:	**3/1/2016**	SeqNo:	**993258**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0023	0.0020	0.002000	0	117	50	150			
Cadmium	0.0021	0.0020	0.002000	0	106	50	150			
Chromium	0.0067	0.0060	0.006000	0	112	50	150			
Copper	0.0066	0.0060	0.006000	0	111	50	150			
Iron	0.021	0.020	0.02000	0	106	50	150			
Manganese	0.0021	0.0020	0.002000	0	103	50	150			
Silver	0.0050	0.0050	0.005000	0	101	50	150			

Sample ID	**MB-24075**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**24075**	RunNo:	**32607**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/7/2016**	SeqNo:	**997674**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A45**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**LCS-24075**	SampType: **LCS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID: **24075**			RunNo: **32607**					
Prep Date:	**3/3/2016**	Analysis Date: **3/7/2016**			SeqNo: **997675**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.50	0.010	0.5000	0	101	85	115			

Sample ID	**LLLCS-24075**	SampType: **LCSLL**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID: **24075**			RunNo: **32607**					
Prep Date:	**3/3/2016**	Analysis Date: **3/7/2016**			SeqNo: **997676**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.0057	0.010	0.005000	0	115	50	150			J

Sample ID	**1602A45-001FMS**	SampType: **MS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-28**	Batch ID: **24075**			RunNo: **32607**					
Prep Date:	**3/3/2016**	Analysis Date: **3/7/2016**			SeqNo: **998055**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.52	0.010	0.5000	0.01788	101	70	130			

Sample ID	**1602A45-001FMSD**	SampType: **MSD**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-28**	Batch ID: **24075**			RunNo: **32607**					
Prep Date:	**3/3/2016**	Analysis Date: **3/7/2016**			SeqNo: **998056**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.51	0.010	0.5000	0.01788	97.6	70	130	2.96	20	

Sample ID	**1602A45-002FMS**	SampType: **MS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-29**	Batch ID: **24075**			RunNo: **32607**					
Prep Date:	**3/3/2016**	Analysis Date: **3/7/2016**			SeqNo: **998061**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.50	0.010	0.5000	0.004370	98.3	70	130			

Sample ID	**1602A45-002FMSD**	SampType: **MSD**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-29**	Batch ID: **24075**			RunNo: **32607**					
Prep Date:	**3/3/2016**	Analysis Date: **3/7/2016**			SeqNo: **998062**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.49	0.010	0.5000	0.004370	96.2	70	130	2.17	20	

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A45**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B32730**	RunNo: **32730**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1001719** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	92.3	85	115			
Lead	0.012	0.00050	0.01250	0	93.0	85	115			
Selenium	0.024	0.0010	0.02500	0	94.0	85	115			
Uranium	0.012	0.00050	0.01250	0	93.5	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B32730**	RunNo: **32730**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1001720** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00093	0.0010	0.001000	0	93.3	50	150			J
Lead	0.00048	0.00050	0.0005000	0	96.9	50	150			J
Selenium	0.0010	0.0010	0.001000	0	105	50	150			
Uranium	0.00047	0.00050	0.0005000	0	94.8	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B32730**	RunNo: **32730**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1001721** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	0.000015	0.00050								J

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B32805**	RunNo: **32805**
Prep Date:	Analysis Date: **3/15/2016**	SeqNo: **1005252** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.4	85	115			
Lead	0.012	0.00050	0.01250	0	95.3	85	115			
Selenium	0.024	0.0010	0.02500	0	97.6	85	115			
Uranium	0.012	0.00050	0.01250	0	95.3	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B32805**	RunNo: **32805**
Prep Date:	Analysis Date: **3/15/2016**	SeqNo: **1005254** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A45**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B32805**	RunNo: **32805**
Prep Date:	Analysis Date: **3/15/2016**	SeqNo: **1005254** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00099	0.0010	0.001000	0	99.3	50	150			J
Lead	0.00049	0.00050	0.0005000	0	98.7	50	150			J
Selenium	0.0010	0.0010	0.001000	0	102	50	150			
Uranium	0.00047	0.00050	0.0005000	0	94.6	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B32805**	RunNo: **32805**
Prep Date:	Analysis Date: **3/15/2016**	SeqNo: **1005256** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A45**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**1602A45-003FMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-25**	Batch ID:	**24075**		RunNo:	**32687**				
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**		SeqNo:	**1000352**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.026	0.0050	0.02500	0.002442	92.4	70	130			
Uranium	0.040	0.0025	0.01250	0.02941	85.4	70	130			

Sample ID	**1602A45-003FMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-25**	Batch ID:	**24075**		RunNo:	**32687**				
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**		SeqNo:	**1000353**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.002789	91.0	70	130			
Lead	0.017	0.00050	0.01250	0.002825	110	70	130			

Sample ID	**1602A45-005FMSDL**	SampType:	**MSDLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-31**	Batch ID:	**24075**		RunNo:	**32687**				
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**		SeqNo:	**1000356**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0050	0.02500	0	108	70	130	1.84	20	
Selenium	0.028	0.0050	0.02500	0.002602	99.9	70	130	0.778	20	
Uranium	0.059	0.0025	0.01250	0.04483	113	70	130	1.51	20	

Sample ID	**1602A45-005FMSDL**	SampType:	**MSDLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-31**	Batch ID:	**24075**		RunNo:	**32687**				
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**		SeqNo:	**1000357**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.018	0.00050	0.01250	0.003584	113	70	130	0.362	20	

Sample ID	**1602A45-005FMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-31**	Batch ID:	**24075**		RunNo:	**32687**				
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**		SeqNo:	**1000358**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.018	0.00050	0.01250	0.003584	113	70	130			

Sample ID	**1602A45-005FMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-31**	Batch ID:	**24075**		RunNo:	**32687**				
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**		SeqNo:	**1000359**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0050	0.02500	0	106	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A45**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**1602A45-005FMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-31**	Batch ID:	**24075**		RunNo:	**32687**				
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**		SeqNo:	**1000359**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.027	0.0050	0.02500	0.002602	99.1	70	130			
Uranium	0.058	0.0025	0.01250	0.04483	105	70	130			

Sample ID	**MB-24075**	SampType:	**MBLK**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**PBW**	Batch ID:	**24075**		RunNo:	**32687**				
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**		SeqNo:	**1000380**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-24075**	SampType:	**LCS**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**LCSW**	Batch ID:	**24075**		RunNo:	**32687**				
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**		SeqNo:	**1000383**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.1	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.025	0.0010	0.02500	0	98.0	85	115			
Uranium	0.012	0.00050	0.01250	0	98.8	85	115			

Sample ID	**MSLLLCS-24075**	SampType:	**LCSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**BatchQC**	Batch ID:	**24075**		RunNo:	**32687**				
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**		SeqNo:	**1000386**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00087	0.0010	0.001000	0	86.9	50	150			J
Lead	0.00046	0.00050	0.0005000	0	91.5	50	150			J
Selenium	0.00081	0.0010	0.001000	0	81.0	50	150			J
Uranium	0.00044	0.00050	0.0005000	0	87.4	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A45**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-23952**	SampType:	**mblk**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**23952**	RunNo:	**32446**					
Prep Date:	**2/25/2016**	Analysis Date:	**2/26/2016**	SeqNo:	**992342**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000060	0.00020								J

Sample ID	**LCS-23952**	SampType:	**lcs**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**23952**	RunNo:	**32446**					
Prep Date:	**2/25/2016**	Analysis Date:	**2/26/2016**	SeqNo:	**992343**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	101	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A45**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32424**	RunNo: **32424**
Prep Date:	Analysis Date: **2/25/2016**	SeqNo: **991478** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32424**	RunNo: **32424**
Prep Date:	Analysis Date: **2/25/2016**	SeqNo: **991479** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	97.4	90	110			
Chloride	4.9	0.50	5.000	0	97.5	90	110			
Bromide	2.5	0.10	2.500	0	99.6	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.4	90	110			
Sulfate	9.9	0.50	10.00	0	98.6	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32480**	RunNo: **32480**
Prep Date:	Analysis Date: **2/29/2016**	SeqNo: **993501** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32480**	RunNo: **32480**
Prep Date:	Analysis Date: **2/29/2016**	SeqNo: **993502** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.7	0.20	3.500	0	106	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A32480**	RunNo: **32480**
Prep Date:	Analysis Date: **2/29/2016**	SeqNo: **993533** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A45**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **A32480**	RunNo: **32480**							
Prep Date:	Analysis Date: **2/29/2016**	SeqNo: **993534**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.1	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R32498**	RunNo: **32498**							
Prep Date:	Analysis Date: **3/1/2016**	SeqNo: **994128**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R32498**	RunNo: **32498**							
Prep Date:	Analysis Date: **3/1/2016**	SeqNo: **994129**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.0	0.50	5.000	0	100	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **A32498**	RunNo: **32498**							
Prep Date:	Analysis Date: **3/1/2016**	SeqNo: **994156**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **A32498**	RunNo: **32498**							
Prep Date:	Analysis Date: **3/1/2016**	SeqNo: **994157**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.0	0.50	5.000	0	99.9	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **A32663**	RunNo: **32663**							
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999401**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A45**
31-Mar-16

Client: Western Refining Southwest, Gallup
Project: Quarterly GW Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **A32663**	RunNo: **32663**							
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999402**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.8	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A45**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB-23932**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **23932**	RunNo: **32388**
Prep Date: **2/25/2016**	Analysis Date: **2/25/2016**	SeqNo: **990951** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		116	70	141			

Sample ID **LCS-23932**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **23932**	RunNo: **32422**
Prep Date: **2/25/2016**	Analysis Date: **2/26/2016**	SeqNo: **991575** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.7	1.0	5.000	0	114	71.3	139			
Surr: DNOP	0.53		0.5000		106	70	141			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A45**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**5ML RB**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBW**	Batch ID:	**R32416**		RunNo:	**32416**					
Prep Date:		Analysis Date:	**2/25/2016**		SeqNo:	**991284**	Units:	**mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		ND	0.050								
Surr: BFB		17		20.00		86.1	49.5	130			

Sample ID	**2.5UG GRO LCS**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSW**	Batch ID:	**R32416**		RunNo:	**32416**					
Prep Date:		Analysis Date:	**2/25/2016**		SeqNo:	**991285**	Units:	**mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		0.46	0.050	0.5000	0	92.2	80	120			
Surr: BFB		20		20.00		102	49.5	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A45**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32418**	RunNo: **32418**
Prep Date:	Analysis Date: **2/25/2016**	SeqNo: **991320** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	0.26	3.0								J
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A45**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32418**	RunNo: **32418**
Prep Date:	Analysis Date: **2/25/2016**	SeqNo: **991320** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	0.61	3.0								J
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.5	70	130			
Surr: Toluene-d8	11		10.00		105	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32418**	RunNo: **32418**
Prep Date:	Analysis Date: **2/25/2016**	SeqNo: **991321** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.7	70	130			
Toluene	22	1.0	20.00	0	109	70	130			
Chlorobenzene	22	1.0	20.00	0	110	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A45**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32418**	RunNo: **32418**
Prep Date:	Analysis Date: **2/25/2016**	SeqNo: **991321** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	19	1.0	20.00	0	95.6	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	98.7	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		108	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.0	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32445**	RunNo: **32445**
Prep Date:	Analysis Date: **2/26/2016**	SeqNo: **992178** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	1.0								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		108	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.0	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32445**	RunNo: **32445**
Prep Date:	Analysis Date: **2/26/2016**	SeqNo: **992179** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21	1.0	20.00	0	107	70	130			
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.3	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		109	70	130			
Surr: Dibromofluoromethane	9.4		10.00		93.9	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A45**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **mb-23981**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **23981**	RunNo: **32524**
Prep Date: **2/29/2016**	Analysis Date: **3/2/2016**	SeqNo: **995048** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A45**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **mb-23981**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **23981**	RunNo: **32524**
Prep Date: **2/29/2016**	Analysis Date: **3/2/2016**	SeqNo: **995048** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	190		200.0		92.6	4.63	113			
Surr: Phenol-d5	190		200.0		94.1	4.13	124			
Surr: 2,4,6-Tribromophenol	94		200.0		47.2	5.14	132			
Surr: Nitrobenzene-d5	87		100.0		87.4	9.13	140			
Surr: 2-Fluorobiphenyl	87		100.0		86.9	10.8	132			
Surr: 4-Terphenyl-d14	110		100.0		110	12.9	107			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602A45**

31-Mar-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **lcs-23981**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **23981**	RunNo: **32524**
Prep Date: **2/29/2016**	Analysis Date: **3/2/2016**	SeqNo: **995049** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	91	10	100.0	0	91.0	40.2	107			
4-Chloro-3-methylphenol	160	10	200.0	0	77.5	48.2	107			
2-Chlorophenol	160	10	200.0	0	81.6	42.5	106			
1,4-Dichlorobenzene	83	10	100.0	0	83.3	31.6	111			
2,4-Dinitrotoluene	68	10	100.0	0	67.8	33.6	86.5			
N-Nitrosodi-n-propylamine	85	10	100.0	0	84.8	44	106			
4-Nitrophenol	130	10	200.0	0	63.3	25.5	109			
Pentachlorophenol	97	20	200.0	0	48.6	38.8	97.8			
Phenol	170	10	200.0	0	84.5	22.7	116			
Pyrene	77	10	100.0	0	76.8	29.3	138			
1,2,4-Trichlorobenzene	84	10	100.0	0	83.6	35.3	123			
Surr: 2-Fluorophenol	160		200.0		80.0	4.63	113			
Surr: Phenol-d5	170		200.0		84.9	4.13	124			
Surr: 2,4,6-Tribromophenol	100		200.0		51.0	5.14	132			
Surr: Nitrobenzene-d5	84		100.0		84.1	9.13	140			
Surr: 2-Fluorobiphenyl	91		100.0		91.2	10.8	132			
Surr: 4-Terphenyl-d14	100		100.0		99.8	12.9	107			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1602A45 RcptNo: 1

Received by/date: AT 02/25/16

Logged By: Ashley Gallegos 2/25/2016 8:16:00 AM

Completed By: Ashley Gallegos 2/25/2016 9:03:29 AM

Reviewed By: JA 02/25/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 14 (<2 or >12 unless noted)

Adjusted? NO

Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

ent: WESTERN REFINING SW, INC.
GALLUP REFINERY.
iling Address: 92 GIANT CROSSING ROAD
GALLUP NM 87301
one #: 505-722-0231
ail or Fax#: CHERYL.JOHNSON@WNR.COM
/QC Package:
Standard ☒ Level 4 (Full Validation)
creditation
NELAP ☐ Other
EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

ate	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1602A47B	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)		Air Bubbles (Y or N)
3/16	0935	WATER	MKTF-28	40 ML VOA-6	HCL	-001			✓							✓						
				1 LITER AMBER-2	NEAT												✓					
				250 ML AMBER-1	NEAT				✓													
				125 ML PLASTIC-1	HNO_3													✓	✓			
				125 ML PLASTIC-1	H_2SO_4													✓				
				500 ML PLASTIC-1	HNO_3														✓			
				500 ML PLASTIC-1	NEAT														✓			
3/16	1100	WATER	MKTF-29	40 ML VOA 6	HCL	-002			✓							✓						
				1 LITER AMBER-2	NEAT												✓					
				250 ML AMBER-1	NEAT				✓													
				125 ML PLASTIC-1	HNO_3													✓	✓			
				125 ML PLASTIC-1	H_2SO_4													✓				

e:	Time:	Relinquished by:	Received by:	Date	Time
4/16	0725			2/24/16	3:00
e:	Time:	Relinquished by:	Received by:	Date	Time
24/16	Bill			02/25/16	0810

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

t: STERN REFINING SW, INC.
LUP REFINERY
ng Address: GIANT CROSSING ROAD
LUP, NM 87301
ne #: 505-722-0231
il or Fax#: CHERYL.JOHNSON@WNR.COM
QC Package: Standard [X] Level 4 (Full Validation)
editation [ ] ELAP [ ] Other
DD (Type) EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

te	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1602A43
/16	1100	WATER	MKTF-29	500 mL PLASTIC-1	HNO_3	-002
	↓	↓	↓	500 mL PLASTIC-1	NEAT	
/16	1225	WATER	MKTF-25	40 mL VOA-6	HCL	-003
	↓	↓	↓	1 LITER AMBER-1	NEAT	
				250 mL AMBER-1	NEAT	
				125 mL PLASTIC-1	HNO_3	
				125 mL PLASTIC-1	H_2SO_4	
				500 mL PLASTIC-1	HNO_3	
↓	↓	↓	↓	500 mL PLASTIC-1	NEAT	
—	—	WATER	TRIP BLANK	40 mL VOA-3	HCL	-004

Analysis Request	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS / ANIONS	WQCC METALS (TOTAL & DISSOLVED)		Air Bubbles (Y or N)
500 mL PLASTIC-1													✓		
500 mL PLASTIC-1													✓		
40 mL VOA-6			✓							✓					
1 LITER AMBER-1											✓				
250 mL AMBER-1			✓												
125 mL PLASTIC-1												✓	✓		
125 mL PLASTIC-1												✓			
500 mL PLASTIC-1													✓		
500 mL PLASTIC-1													✓		
40 mL VOA-3										✓					

	Time:	Relinquished by:	Received by:	Date	Time
te: 4/16	Time: 0725	Relinquished by:	Received by:	2/24/16	3:00
te: /16	Time: 8:16	Relinquished by:	Received by:	Date 02/25/16	Time 08:16

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: EASTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard / [X] Level 4 (Full Validation)
Accreditation: [ ] NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1602A43	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS / ANIONS	WQCC METALS (TOTAL & Dissolved)		Air Bubbles (Y or N)
3/16	1345	WATER	MKTF-31	40 ML VOA-6	HCL	-005			✓							✓	✓				
				1 LITER AMBER-1	NEAT																
				250 ML AMBER-1	NEAT				✓												
				125 ML PLASTIC-1	HNO_3													✓	✓		
				500 ML PLASTIC-1	HNO_3														✓		
				500 ML PLASTIC-1	NEAT													✓			
				125 ML PLASTIC-1	H_2SO_4																
23/16	1450	WATER	MKTF-40	40 ML VOA-6	HCL	-006			✓							✓	✓				
				1 LITER AMBER-1	NEAT																
				250 ML AMBER-1	NEAT				✓												
				125 ML PLASTIC-1	HNO_3													✓	✓		
				500 ML PLASTIC-1	HNO_3														✓		

Analysis Request

Date: 2/24/16 Time: 0725 Relinquished by:
Date: 2/24/16 Time: 8:16 Relinquished by:

Received by: Date 2/24/16 Time 3:00
Received by: Date 02/24/16 Time 08:16

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package:
☐ Standard ☒ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1602A43	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS / ANIONS	WQCC METALS (TOTAL & Dissolved)		Air Bubbles (Y or N)
2/23/16	1450	WATER	MKTF-40	500 ML PLASTIC-1	NEAT	-001													✓		
				125 ML PLASTIC-1	H_2SO_4													✓			
2/23/16	1545	WATER	MKTF-30	40 ML VOA-6	HCL	-007			✓							✓					
				1 LITER AMBER-1	NEAT												✓				
				250 ML AMBER-1	NEAT				✓												
				125 ML PLASTIC-1	HNO_3													✓	✓		
				500 ML PLASTIC-1	HNO_3														✓		
				500 ML PLASTIC	NEAT														✓		
				125 ML PLASTIC-1	H_2SO_4													✓			
—	—	WATER	TRIP BLANK	40 ML VOA-3	HCL	-008										✓					

Date: 2/24/16 Time: 0725 Relinquished by:
Date: 2/24/16 Time: 8:11 Relinquished by:

Received by: Date 2/24/16 Time 3:00
Received by: Date 02/24/16 Time 0811

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

April 01, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: Quarterly GW Sampling OrderNo.: 1602B49

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 21 sample(s) on 2/26/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-19
Project: Quarterly GW Sampling
Collection Date: 2/25/2016 2:40:00 PM
Lab ID: 1602B49-001
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	7.8	0.69	1.0		mg/L	1	3/1/2016 1:12:35 PM	24002
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/1/2016 1:12:35 PM	24002
Surr: DNOP	90.8	0	70-141		%Rec	1	3/1/2016 1:12:35 PM	24002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	22	0.51	1.0		mg/L	20	3/1/2016 3:44:31 PM	A32486
Surr: BFB	102	0	49.5-130		%Rec	20	3/1/2016 3:44:31 PM	A32486
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.24	0.11	0.50	J	mg/L	5	3/1/2016 4:23:45 AM	R32483
Chloride	150	0.55	10		mg/L	20	3/1/2016 4:36:09 AM	R32483
Bromide	1.6	0.16	0.50		mg/L	5	3/1/2016 4:23:45 AM	R32483
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5	H	mg/L	5	3/1/2016 4:23:45 AM	R32483
Sulfate	ND	0.32	2.5		mg/L	5	3/1/2016 4:23:45 AM	R32483
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	2/29/2016 11:15:17 PM	A32480
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	1.7	0.0066	0.010		mg/L	5	3/15/2016 12:21:24 PM	A32792
Cadmium	ND	0.00075	0.0020		mg/L	1	3/11/2016 4:32:05 PM	C32754
Calcium	150	1.3	5.0		mg/L	5	3/16/2016 12:54:03 PM	D32831
Chromium	ND	0.0018	0.0060		mg/L	1	3/11/2016 4:32:05 PM	C32754
Copper	ND	0.0040	0.0060		mg/L	1	3/15/2016 12:19:41 PM	A32792
Iron	11	0.18	0.40	*	mg/L	20	3/16/2016 11:26:38 AM	B32831
Magnesium	30	0.013	1.0		mg/L	1	3/11/2016 4:32:05 PM	C32754
Manganese	3.1	0.0016	0.010	*	mg/L	5	3/15/2016 12:21:24 PM	A32792
Potassium	1.4	0.18	1.0		mg/L	1	3/11/2016 4:32:05 PM	C32754
Silver	ND	0.0028	0.0050		mg/L	1	3/11/2016 4:32:05 PM	C32754
Sodium	270	0.48	5.0		mg/L	5	3/16/2016 11:24:51 AM	B32831
Zinc	0.0097	0.0028	0.010	J	mg/L	1	3/16/2016 11:23:10 AM	B32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	2.8	0.0053	0.010	*	mg/L	5	3/11/2016 2:31:41 PM	24015
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 2:26:13 PM	24015
Chromium	0.012	0.0022	0.0060		mg/L	1	3/11/2016 2:26:13 PM	24015
Copper	0.018	0.0051	0.0060		mg/L	1	3/11/2016 2:26:13 PM	24015
Iron	23	0.36	1.0	*	mg/L	50	3/11/2016 2:42:50 PM	24015
Manganese	3.9	0.0076	0.010	*	mg/L	5	3/11/2016 2:31:41 PM	24015
Silver	ND	0.0021	0.0050		mg/L	1	3/23/2016 10:40:22 AM	24381
Zinc	0.080	0.0039	0.010		mg/L	1	3/11/2016 2:26:13 PM	24015
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.015	0.000065	0.0010	*	mg/L	1	3/15/2016 5:12:15 PM	C32805

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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Hall Environmental Analysis Laboratory, Inc.

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Client Sample ID: MKTF-19
Project: Quarterly GW Sampling
Collection Date: 2/25/2016 2:40:00 PM
Lab ID: 1602B49-001
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.0034	0.000026	0.00050		mg/L	1	3/15/2016 5:12:15 PM	C32805
Selenium	0.0038	0.0019	0.010	J	mg/L	10	3/24/2016 4:55:05 PM	B33051
Uranium	0.00060	0.0000048	0.00050		mg/L	1	3/15/2016 5:12:15 PM	C32805
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.022	0.015	0.050	J*	mg/L	50	3/14/2016 5:32:45 PM	24015
Lead	0.069	0.00024	0.0025	*	mg/L	5	3/14/2016 4:20:56 PM	24015
Selenium	0.019	0.0062	0.050	J	mg/L	50	3/14/2016 5:32:45 PM	24015
Uranium	0.025	0.000025	0.0025		mg/L	5	3/14/2016 4:20:56 PM	24015
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.00027	0.0010		mg/L	5	3/2/2016 3:10:15 PM	24021
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Acenaphthylene	ND	7.2	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Aniline	ND	9.8	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Anthracene	ND	6.6	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Azobenzene	ND	9.3	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Benzoic acid	ND	9.8	20		µg/L	1	3/2/2016 6:41:21 PM	23981
Benzyl alcohol	ND	8.0	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/2/2016 6:41:21 PM	23981
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Carbazole	10	7.2	10		µg/L	1	3/2/2016 6:41:21 PM	23981
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/2/2016 6:41:21 PM	23981
4-Chloroaniline	ND	7.1	10		µg/L	1	3/2/2016 6:41:21 PM	23981
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/2/2016 6:41:21 PM	23981
2-Chlorophenol	ND	8.7	10		µg/L	1	3/2/2016 6:41:21 PM	23981
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Chrysene	ND	6.6	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/2/2016 6:41:21 PM	23981

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-19
Project: Quarterly GW Sampling
Collection Date: 2/25/2016 2:40:00 PM
Lab ID: 1602B49-001 **Matrix:** AQUEOUS **Received Date:** 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Dibenzofuran	ND	8.6	10		µg/L	1	3/2/2016 6:41:21 PM	23981
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/2/2016 6:41:21 PM	23981
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/2/2016 6:41:21 PM	23981
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/2/2016 6:41:21 PM	23981
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Diethyl phthalate	ND	8.2	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/2/2016 6:41:21 PM	23981
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/2/2016 6:41:21 PM	23981
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/2/2016 6:41:21 PM	23981
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/2/2016 6:41:21 PM	23981
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/2/2016 6:41:21 PM	23981
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/2/2016 6:41:21 PM	23981
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Fluoranthene	ND	6.1	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Fluorene	ND	7.2	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Hexachloroethane	ND	5.8	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Isophorone	ND	8.1	10		µg/L	1	3/2/2016 6:41:21 PM	23981
1-Methylnaphthalene	150	6.8	10		µg/L	1	3/2/2016 6:41:21 PM	23981
2-Methylnaphthalene	240	7.0	10		µg/L	1	3/2/2016 6:41:21 PM	23981
2-Methylphenol	ND	8.2	10		µg/L	1	3/2/2016 6:41:21 PM	23981
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/2/2016 6:41:21 PM	23981
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/2/2016 6:41:21 PM	23981
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/2/2016 6:41:21 PM	23981
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Naphthalene	350	59	100		µg/L	10	3/4/2016 10:12:15 AM	23981
2-Nitroaniline	ND	9.0	10		µg/L	1	3/2/2016 6:41:21 PM	23981
3-Nitroaniline	ND	8.8	10		µg/L	1	3/2/2016 6:41:21 PM	23981
4-Nitroaniline	ND	9.1	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Nitrobenzene	ND	7.8	10		µg/L	1	3/2/2016 6:41:21 PM	23981
2-Nitrophenol	ND	7.6	10		µg/L	1	3/2/2016 6:41:21 PM	23981
4-Nitrophenol	ND	6.7	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Pentachlorophenol	ND	7.6	20		µg/L	1	3/2/2016 6:41:21 PM	23981
Phenanthrene	ND	6.8	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Phenol	10	5.1	10	J	µg/L	1	3/2/2016 6:41:21 PM	23981

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CLIENT: Western Refining Southwest, Gallup
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Collection Date: 2/25/2016 2:40:00 PM
Lab ID: 1602B49-001 **Matrix:** AQUEOUS **Received Date:** 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Pyridine	ND	6.7	10		µg/L	1	3/2/2016 6:41:21 PM	23981
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/2/2016 6:41:21 PM	23981
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/2/2016 6:41:21 PM	23981
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/2/2016 6:41:21 PM	23981
Surr: 2-Fluorophenol	44.4	0	4.63-113		%Rec	1	3/2/2016 6:41:21 PM	23981
Surr: Phenol-d5	39.6	0	4.13-124		%Rec	1	3/2/2016 6:41:21 PM	23981
Surr: 2,4,6-Tribromophenol	78.2	0	5.14-132		%Rec	1	3/2/2016 6:41:21 PM	23981
Surr: Nitrobenzene-d5	78.0	0	9.13-140		%Rec	1	3/2/2016 6:41:21 PM	23981
Surr: 2-Fluorobiphenyl	85.3	0	10.8-132		%Rec	1	3/2/2016 6:41:21 PM	23981
Surr: 4-Terphenyl-d14	72.8	0	12.9-107		%Rec	1	3/2/2016 6:41:21 PM	23981
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	1500	1.9	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
Toluene	5.0	1.8	20	J	µg/L	20	3/3/2016 2:21:24 PM	R32574
Ethylbenzene	790	2.2	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
Methyl tert-butyl ether (MTBE)	8600	42	200		µg/L	200	3/4/2016 3:38:43 PM	R32609
1,2,4-Trimethylbenzene	680	2.1	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
1,3,5-Trimethylbenzene	82	2.3	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
1,2-Dichloroethane (EDC)	ND	1.1	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
1,2-Dibromoethane (EDB)	ND	2.2	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
Naphthalene	550	1.7	40		µg/L	20	3/3/2016 2:21:24 PM	R32574
1-Methylnaphthalene	250	4.1	80		µg/L	20	3/3/2016 2:21:24 PM	R32574
2-Methylnaphthalene	350	3.2	80		µg/L	20	3/3/2016 2:21:24 PM	R32574
Acetone	ND	18	200		µg/L	20	3/3/2016 2:21:24 PM	R32574
Bromobenzene	ND	1.6	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
Bromodichloromethane	ND	2.0	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
Bromoform	ND	2.0	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
Bromomethane	ND	16	60		µg/L	20	3/3/2016 2:21:24 PM	R32574
2-Butanone	ND	6.4	200		µg/L	20	3/3/2016 2:21:24 PM	R32574
Carbon disulfide	ND	12	200		µg/L	20	3/3/2016 2:21:24 PM	R32574
Carbon Tetrachloride	ND	2.2	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
Chlorobenzene	ND	2.1	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
Chloroethane	ND	2.9	40		µg/L	20	3/3/2016 2:21:24 PM	R32574
Chloroform	ND	1.8	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
Chloromethane	ND	4.3	60		µg/L	20	3/3/2016 2:21:24 PM	R32574
2-Chlorotoluene	ND	8.0	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
4-Chlorotoluene	ND	2.6	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
cis-1,2-DCE	ND	2.5	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
cis-1,3-Dichloropropene	ND	2.0	20		µg/L	20	3/3/2016 2:21:24 PM	R32574

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	3.1	40		µg/L	20	3/3/2016 2:21:24 PM	R32574
Dibromochloromethane	ND	1.7	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
Dibromomethane	ND	2.4	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
1,2-Dichlorobenzene	ND	8.0	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
1,3-Dichlorobenzene	ND	2.9	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
1,4-Dichlorobenzene	ND	2.9	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
Dichlorodifluoromethane	ND	6.5	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
1,1-Dichloroethane	ND	2.2	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
1,1-Dichloroethene	ND	1.5	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
1,2-Dichloropropane	ND	0.94	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
1,3-Dichloropropane	ND	3.1	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
2,2-Dichloropropane	ND	2.4	40		µg/L	20	3/3/2016 2:21:24 PM	R32574
1,1-Dichloropropene	ND	2.7	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
Hexachlorobutadiene	ND	4.0	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
2-Hexanone	ND	7.2	200		µg/L	20	3/3/2016 2:21:24 PM	R32574
Isopropylbenzene	33	2.0	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
4-Isopropyltoluene	5.9	2.8	20	J	µg/L	20	3/3/2016 2:21:24 PM	R32574
4-Methyl-2-pentanone	ND	3.0	200		µg/L	20	3/3/2016 2:21:24 PM	R32574
Methylene Chloride	5.6	1.3	60	J	µg/L	20	3/3/2016 2:21:24 PM	R32574
n-Butylbenzene	17	3.2	60	J	µg/L	20	3/3/2016 2:21:24 PM	R32574
n-Propylbenzene	99	2.6	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
sec-Butylbenzene	7.5	2.2	20	J	µg/L	20	3/3/2016 2:21:24 PM	R32574
Styrene	ND	1.9	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
tert-Butylbenzene	ND	1.9	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
1,1,1,2-Tetrachloroethane	ND	2.2	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
1,1,2,2-Tetrachloroethane	ND	2.1	40		µg/L	20	3/3/2016 2:21:24 PM	R32574
Tetrachloroethene (PCE)	ND	3.0	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
trans-1,2-DCE	ND	8.0	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
trans-1,3-Dichloropropene	ND	1.7	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
1,2,3-Trichlorobenzene	ND	2.3	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
1,2,4-Trichlorobenzene	ND	2.7	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
1,1,1-Trichloroethane	ND	1.3	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
1,1,2-Trichloroethane	ND	1.5	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
Trichloroethene (TCE)	ND	3.5	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
Trichlorofluoromethane	ND	1.8	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
1,2,3-Trichloropropane	ND	2.2	40		µg/L	20	3/3/2016 2:21:24 PM	R32574
Vinyl chloride	ND	1.3	20		µg/L	20	3/3/2016 2:21:24 PM	R32574
Xylenes, Total	670	6.5	30		µg/L	20	3/3/2016 2:21:24 PM	R32574
Surr: 1,2-Dichloroethane-d4	88.2	0	70-130		%Rec	20	3/3/2016 2:21:24 PM	R32574

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-19
Project: Quarterly GW Sampling
Collection Date: 2/25/2016 2:40:00 PM
Lab ID: 1602B49-001 **Matrix:** AQUEOUS **Received Date:** 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	88.1	0	70-130		%Rec	20	3/3/2016 2:21:24 PM	R32574
Surr: Dibromofluoromethane	96.9	0	70-130		%Rec	20	3/3/2016 2:21:24 PM	R32574
Surr: Toluene-d8	102	0	70-130		%Rec	20	3/3/2016 2:21:24 PM	R32574

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-34
Project: Quarterly GW Sampling
Collection Date: 2/25/2016 3:40:00 PM
Lab ID: 1602B49-002
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/1/2016 2:16:54 PM	24002
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/1/2016 2:16:54 PM	24002
Surr: DNOP	94.3	0	70-141		%Rec	1	3/1/2016 2:16:54 PM	24002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	3/1/2016 4:58:11 PM	A32486
Surr: BFB	84.0	0	49.5-130		%Rec	1	3/1/2016 4:58:11 PM	A32486
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.53	0.023	0.10		mg/L	1	3/2/2016 1:55:11 PM	R32517
Chloride	380	0.55	10		mg/L	20	3/1/2016 5:25:48 AM	R32483
Bromide	2.0	0.032	0.10		mg/L	1	3/1/2016 4:48:34 AM	R32483
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	3/1/2016 4:48:34 AM	R32483
Sulfate	110	1.3	10		mg/L	20	3/1/2016 5:25:48 AM	R32483
Nitrate+Nitrite as N	18	0.42	1.0	*	mg/L	5	2/29/2016 11:27:42 PM	A32480
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.13	0.0013	0.0020		mg/L	1	3/11/2016 4:33:46 PM	C32754
Cadmium	ND	0.00075	0.0020		mg/L	1	3/11/2016 4:33:46 PM	C32754
Calcium	63	0.26	1.0		mg/L	1	3/11/2016 4:33:46 PM	C32754
Chromium	ND	0.0018	0.0060		mg/L	1	3/11/2016 4:33:46 PM	C32754
Copper	ND	0.0040	0.0060		mg/L	1	3/15/2016 12:33:40 PM	A32792
Iron	0.017	0.0091	0.020	J	mg/L	1	3/11/2016 4:33:46 PM	C32754
Magnesium	14	0.013	1.0		mg/L	1	3/11/2016 4:33:46 PM	C32754
Manganese	0.0010	0.00032	0.0020	J	mg/L	1	3/11/2016 4:33:46 PM	C32754
Potassium	1.6	0.18	1.0		mg/L	1	3/11/2016 4:33:46 PM	C32754
Silver	ND	0.0028	0.0050		mg/L	1	3/11/2016 4:33:46 PM	C32754
Sodium	340	0.48	5.0		mg/L	5	3/16/2016 11:30:31 AM	B32831
Zinc	0.012	0.0028	0.010		mg/L	1	3/16/2016 11:28:33 AM	B32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.15	0.0011	0.0020		mg/L	1	3/11/2016 2:44:41 PM	24015
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 2:44:41 PM	24015
Chromium	ND	0.0022	0.0060		mg/L	1	3/11/2016 2:44:41 PM	24015
Copper	ND	0.0051	0.0060		mg/L	1	3/11/2016 2:44:41 PM	24015
Iron	1.6	0.036	0.10	*	mg/L	5	3/11/2016 2:49:57 PM	24015
Manganese	0.044	0.0015	0.0020		mg/L	1	3/11/2016 2:44:41 PM	24015
Silver	ND	0.0021	0.0050		mg/L	1	3/23/2016 10:51:12 AM	24381
Zinc	0.023	0.0039	0.010		mg/L	1	3/11/2016 2:44:41 PM	24015
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0032	0.00032	0.0050	J	mg/L	5	3/22/2016 6:11:03 PM	B32978

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-34
Project: Quarterly GW Sampling
Collection Date: 2/25/2016 3:40:00 PM
Lab ID: 1602B49-002
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00013	0.000026	0.00050	J	mg/L	1	3/15/2016 5:21:26 PM	C32805
Selenium	0.010	0.00097	0.0050		mg/L	5	3/22/2016 6:11:03 PM	B32978
Uranium	0.030	0.000024	0.0025		mg/L	5	3/22/2016 6:11:03 PM	B32978
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0030	0.0015	0.0050	J	mg/L	5	3/11/2016 2:58:55 PM	24015
Lead	0.0016	0.000047	0.00050		mg/L	1	3/11/2016 1:09:27 PM	24015
Selenium	0.0067	0.0012	0.010	J	mg/L	10	3/11/2016 3:01:56 PM	24015
Uranium	0.032	0.000025	0.0025	*	mg/L	5	3/11/2016 2:58:55 PM	24015
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/2/2016 1:07:59 PM	24021
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Acenaphthylene	ND	7.2	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Aniline	ND	9.8	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Anthracene	ND	6.6	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Azobenzene	ND	9.3	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Benzoic acid	ND	9.8	20		µg/L	1	3/2/2016 7:11:11 PM	23981
Benzyl alcohol	ND	8.0	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/2/2016 7:11:11 PM	23981
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Carbazole	ND	7.2	10		µg/L	1	3/2/2016 7:11:11 PM	23981
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/2/2016 7:11:11 PM	23981
4-Chloroaniline	ND	7.1	10		µg/L	1	3/2/2016 7:11:11 PM	23981
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/2/2016 7:11:11 PM	23981
2-Chlorophenol	ND	8.7	10		µg/L	1	3/2/2016 7:11:11 PM	23981
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Chrysene	ND	6.6	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/2/2016 7:11:11 PM	23981

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-34
Project: Quarterly GW Sampling
Collection Date: 2/25/2016 3:40:00 PM
Lab ID: 1602B49-002
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Dibenzofuran	ND	8.6	10		µg/L	1	3/2/2016 7:11:11 PM	23981
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/2/2016 7:11:11 PM	23981
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/2/2016 7:11:11 PM	23981
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/2/2016 7:11:11 PM	23981
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Diethyl phthalate	ND	8.2	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/2/2016 7:11:11 PM	23981
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/2/2016 7:11:11 PM	23981
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/2/2016 7:11:11 PM	23981
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/2/2016 7:11:11 PM	23981
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/2/2016 7:11:11 PM	23981
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/2/2016 7:11:11 PM	23981
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Fluoranthene	ND	6.1	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Fluorene	ND	7.2	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Hexachloroethane	ND	5.8	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Isophorone	ND	8.1	10		µg/L	1	3/2/2016 7:11:11 PM	23981
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/2/2016 7:11:11 PM	23981
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/2/2016 7:11:11 PM	23981
2-Methylphenol	ND	8.2	10		µg/L	1	3/2/2016 7:11:11 PM	23981
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/2/2016 7:11:11 PM	23981
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/2/2016 7:11:11 PM	23981
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/2/2016 7:11:11 PM	23981
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Naphthalene	ND	5.9	10		µg/L	1	3/2/2016 7:11:11 PM	23981
2-Nitroaniline	ND	9.0	10		µg/L	1	3/2/2016 7:11:11 PM	23981
3-Nitroaniline	ND	8.8	10		µg/L	1	3/2/2016 7:11:11 PM	23981
4-Nitroaniline	ND	9.1	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Nitrobenzene	ND	7.8	10		µg/L	1	3/2/2016 7:11:11 PM	23981
2-Nitrophenol	ND	7.6	10		µg/L	1	3/2/2016 7:11:11 PM	23981
4-Nitrophenol	ND	6.7	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Pentachlorophenol	ND	7.6	20		µg/L	1	3/2/2016 7:11:11 PM	23981
Phenanthrene	ND	6.8	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Phenol	ND	5.1	10		µg/L	1	3/2/2016 7:11:11 PM	23981

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-34
Project: Quarterly GW Sampling
Collection Date: 2/25/2016 3:40:00 PM
Lab ID: 1602B49-002
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Pyridine	ND	6.7	10		µg/L	1	3/2/2016 7:11:11 PM	23981
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/2/2016 7:11:11 PM	23981
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/2/2016 7:11:11 PM	23981
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/2/2016 7:11:11 PM	23981
Surr: 2-Fluorophenol	50.9	0	4.63-113		%Rec	1	3/2/2016 7:11:11 PM	23981
Surr: Phenol-d5	38.9	0	4.13-124		%Rec	1	3/2/2016 7:11:11 PM	23981
Surr: 2,4,6-Tribromophenol	60.3	0	5.14-132		%Rec	1	3/2/2016 7:11:11 PM	23981
Surr: Nitrobenzene-d5	91.7	0	9.13-140		%Rec	1	3/2/2016 7:11:11 PM	23981
Surr: 2-Fluorobiphenyl	92.6	0	10.8-132		%Rec	1	3/2/2016 7:11:11 PM	23981
Surr: 4-Terphenyl-d14	72.7	0	12.9-107		%Rec	1	3/2/2016 7:11:11 PM	23981
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	ND	0.096	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Toluene	ND	0.089	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
1,2-Dichloroethane (EDC)	0.15	0.053	1.0	J	µg/L	1	3/3/2016 2:50:04 PM	R32574
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Naphthalene	0.21	0.083	2.0	J	µg/L	1	3/3/2016 2:50:04 PM	R32574
1-Methylnaphthalene	0.43	0.20	4.0	J	µg/L	1	3/3/2016 2:50:04 PM	R32574
2-Methylnaphthalene	0.52	0.16	4.0	J	µg/L	1	3/3/2016 2:50:04 PM	R32574
Acetone	ND	0.88	10		µg/L	1	3/3/2016 2:50:04 PM	R32574
Bromobenzene	ND	0.080	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Bromoform	ND	0.10	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Bromomethane	ND	0.78	3.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
2-Butanone	ND	0.32	10		µg/L	1	3/3/2016 2:50:04 PM	R32574
Carbon disulfide	ND	0.60	10		µg/L	1	3/3/2016 2:50:04 PM	R32574
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Chloroethane	ND	0.15	2.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Chloroform	ND	0.089	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Chloromethane	ND	0.21	3.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-34
Project: Quarterly GW Sampling
Collection Date: 2/25/2016 3:40:00 PM
Lab ID: 1602B49-002 **Matrix:** AQUEOUS **Received Date:** 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Dibromomethane	ND	0.12	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
1,1-Dichloroethane	0.30	0.11	1.0	J	µg/L	1	3/3/2016 2:50:04 PM	R32574
1,1-Dichloroethene	0.42	0.076	1.0	J	µg/L	1	3/3/2016 2:50:04 PM	R32574
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
2-Hexanone	ND	0.36	10		µg/L	1	3/3/2016 2:50:04 PM	R32574
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/3/2016 2:50:04 PM	R32574
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Styrene	ND	0.095	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Trichloroethene (TCE)	1.8	0.18	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/3/2016 2:50:04 PM	R32574
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/3/2016 2:50:04 PM	R32574
Surr: 1,2-Dichloroethane-d4	94.3	0	70-130		%Rec	1	3/3/2016 2:50:04 PM	R32574

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-34
Project: Quarterly GW Sampling
Collection Date: 2/25/2016 3:40:00 PM
Lab ID: 1602B49-002
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	100	0	70-130		%Rec	1	3/3/2016 2:50:04 PM	R32574
Surr: Dibromofluoromethane	105	0	70-130		%Rec	1	3/3/2016 2:50:04 PM	R32574
Surr: Toluene-d8	101	0	70-130		%Rec	1	3/3/2016 2:50:04 PM	R32574

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1602B49-003
Matrix: TRIP BLANK
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	3/1/2016 5:22:36 PM	A32486
Surr: BFB	84.6	0	49.5-130		%Rec	1	3/1/2016 5:22:36 PM	A32486
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	ND	0.096	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Toluene	ND	0.089	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Naphthalene	ND	0.083	2.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Acetone	ND	0.88	10		µg/L	1	3/4/2016 1:22:30 AM	B32574
Bromobenzene	ND	0.080	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Bromoform	ND	0.10	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Bromomethane	ND	0.78	3.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
2-Butanone	ND	0.32	10		µg/L	1	3/4/2016 1:22:30 AM	B32574
Carbon disulfide	ND	0.60	10		µg/L	1	3/4/2016 1:22:30 AM	B32574
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Chloroethane	ND	0.15	2.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Chloroform	ND	0.089	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Chloromethane	ND	0.21	3.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Dibromomethane	ND	0.12	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1602B49-003
Matrix: TRIP BLANK
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
2-Hexanone	ND	0.36	10		µg/L	1	3/4/2016 1:22:30 AM	B32574
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/4/2016 1:22:30 AM	B32574
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Styrene	ND	0.095	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/4/2016 1:22:30 AM	B32574
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/4/2016 1:22:30 AM	B32574
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	1	3/4/2016 1:22:30 AM	B32574
Surr: 4-Bromofluorobenzene	99.7	0	70-130		%Rec	1	3/4/2016 1:22:30 AM	B32574
Surr: Dibromofluoromethane	115	0	70-130		%Rec	1	3/4/2016 1:22:30 AM	B32574
Surr: Toluene-d8	95.8	0	70-130		%Rec	1	3/4/2016 1:22:30 AM	B32574

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 3:50:00 PM
Lab ID: 1602B49-004
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/1/2016 2:59:40 PM	24002
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/1/2016 2:59:40 PM	24002
Surr: DNOP	95.1	0	70-141		%Rec	1	3/1/2016 2:59:40 PM	24002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.88	0.025	0.050		mg/L	1	3/1/2016 5:46:56 PM	A32486
Surr: BFB	89.3	0	49.5-130		%Rec	1	3/1/2016 5:46:56 PM	A32486
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.28	0.023	0.10		mg/L	1	3/9/2016 8:24:28 PM	R32693
Chloride	450	1.4	25		mg/L	50	3/9/2016 8:36:53 PM	R32693
Bromide	1.6	0.032	0.10		mg/L	1	3/9/2016 8:24:28 PM	R32693
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	3/9/2016 8:24:28 PM	R32693
Sulfate	91	3.2	25		mg/L	50	3/9/2016 8:36:53 PM	R32693
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	3/1/2016 12:17:21 AM	A32480
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.049	0.0013	0.0020		mg/L	1	3/11/2016 4:35:41 PM	C32754
Cadmium	ND	0.00075	0.0020		mg/L	1	3/11/2016 4:35:41 PM	C32754
Calcium	30	0.26	1.0		mg/L	1	3/11/2016 4:35:41 PM	C32754
Chromium	ND	0.0018	0.0060		mg/L	1	3/11/2016 4:35:41 PM	C32754
Copper	ND	0.0040	0.0060		mg/L	1	3/15/2016 12:37:35 PM	A32792
Iron	0.023	0.0091	0.020		mg/L	1	3/11/2016 4:35:41 PM	C32754
Magnesium	5.6	0.013	1.0		mg/L	1	3/11/2016 4:35:41 PM	C32754
Manganese	0.062	0.00032	0.0020	*	mg/L	1	3/11/2016 4:35:41 PM	C32754
Potassium	1.0	0.18	1.0		mg/L	1	3/11/2016 4:35:41 PM	C32754
Silver	ND	0.0028	0.0050		mg/L	1	3/11/2016 4:35:41 PM	C32754
Sodium	580	0.96	10		mg/L	10	3/16/2016 11:34:29 AM	B32831
Zinc	0.012	0.0028	0.010		mg/L	1	3/16/2016 11:32:25 AM	B32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.097	0.0011	0.0020		mg/L	1	3/11/2016 2:55:56 PM	24015
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 2:55:56 PM	24015
Chromium	ND	0.0022	0.0060		mg/L	1	3/11/2016 2:55:56 PM	24015
Copper	ND	0.0051	0.0060		mg/L	1	3/11/2016 2:55:56 PM	24015
Iron	2.0	0.036	0.10	*	mg/L	5	3/11/2016 3:03:22 PM	24015
Manganese	0.13	0.0015	0.0020	*	mg/L	1	3/11/2016 2:55:56 PM	24015
Silver	ND	0.0021	0.0050		mg/L	1	3/23/2016 11:08:39 AM	24381
Zinc	0.013	0.0039	0.010		mg/L	1	3/11/2016 2:55:56 PM	24015
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0029	0.000065	0.0010		mg/L	1	3/15/2016 5:24:29 PM	C32805

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 3:50:00 PM
Lab ID: 1602B49-004
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00024	0.000026	0.00050	J	mg/L	1	3/15/2016 5:24:29 PM	C32805
Selenium	0.0034	0.0019	0.010	J	mg/L	10	3/24/2016 4:58:15 PM	B33051
Uranium	0.063	0.000024	0.0025	*	mg/L	5	3/22/2016 6:14:07 PM	B32978
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0034	0.00029	0.0010		mg/L	1	3/11/2016 1:12:28 PM	24015
Lead	0.0028	0.000047	0.00050		mg/L	1	3/11/2016 1:12:28 PM	24015
Selenium	0.0031	0.00062	0.0050	J	mg/L	5	3/11/2016 3:04:57 PM	24015
Uranium	0.062	0.000025	0.0025	*	mg/L	5	3/11/2016 3:04:57 PM	24015
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/2/2016 1:10:03 PM	24021
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Aniline	ND	9.8	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/3/2016 4:08:51 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/3/2016 4:08:51 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Carbazole	ND	7.2	10		µg/L	1	3/3/2016 4:08:51 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/3/2016 4:08:51 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/3/2016 4:08:51 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/3/2016 4:08:51 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/3/2016 4:08:51 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/3/2016 4:08:51 PM	24000

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Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/3/2016 4:08:51 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/3/2016 4:08:51 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/3/2016 4:08:51 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/3/2016 4:08:51 PM	24000
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/3/2016 4:08:51 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/3/2016 4:08:51 PM	24000
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/3/2016 4:08:51 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/3/2016 4:08:51 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/3/2016 4:08:51 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/3/2016 4:08:51 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Fluorene	ND	7.2	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/3/2016 4:08:51 PM	24000
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/3/2016 4:08:51 PM	24000
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/3/2016 4:08:51 PM	24000
2-Methylphenol	ND	8.2	10		µg/L	1	3/3/2016 4:08:51 PM	24000
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/3/2016 4:08:51 PM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/3/2016 4:08:51 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/3/2016 4:08:51 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Naphthalene	ND	5.9	10		µg/L	1	3/3/2016 4:08:51 PM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/3/2016 4:08:51 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/3/2016 4:08:51 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/3/2016 4:08:51 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/3/2016 4:08:51 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/3/2016 4:08:51 PM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Phenol	ND	5.1	10		µg/L	1	3/3/2016 4:08:51 PM	24000

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Lab ID: 1602B49-004
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/3/2016 4:08:51 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/3/2016 4:08:51 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/3/2016 4:08:51 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/3/2016 4:08:51 PM	24000
Surr: 2-Fluorophenol	44.6	0	4.63-113		%Rec	1	3/3/2016 4:08:51 PM	24000
Surr: Phenol-d5	33.3	0	4.13-124		%Rec	1	3/3/2016 4:08:51 PM	24000
Surr: 2,4,6-Tribromophenol	72.6	0	5.14-132		%Rec	1	3/3/2016 4:08:51 PM	24000
Surr: Nitrobenzene-d5	81.1	0	9.13-140		%Rec	1	3/3/2016 4:08:51 PM	24000
Surr: 2-Fluorobiphenyl	83.7	0	10.8-132		%Rec	1	3/3/2016 4:08:51 PM	24000
Surr: 4-Terphenyl-d14	67.8	0	12.9-107		%Rec	1	3/3/2016 4:08:51 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	0.40	0.096	1.0	J	µg/L	1	3/3/2016 3:18:43 PM	R32574
Toluene	ND	0.089	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
Methyl tert-butyl ether (MTBE)	620	2.1	10		µg/L	10	3/4/2016 4:07:28 PM	R32609
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
1,2-Dichloroethane (EDC)	19	0.053	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
Naphthalene	ND	0.083	2.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
Acetone	ND	0.88	10		µg/L	1	3/3/2016 3:18:43 PM	R32574
Bromobenzene	ND	0.080	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
Bromoform	ND	0.10	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
Bromomethane	ND	0.78	3.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
2-Butanone	ND	0.32	10		µg/L	1	3/3/2016 3:18:43 PM	R32574
Carbon disulfide	ND	0.60	10		µg/L	1	3/3/2016 3:18:43 PM	R32574
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
Chloroethane	ND	0.15	2.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
Chloroform	ND	0.089	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
Chloromethane	ND	0.21	3.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
cis-1,2-DCE	1.6	0.12	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
Dibromomethane	ND	0.12	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
1,1-Dichloroethane	17	0.11	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
1,1-Dichloroethene	28	0.076	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
2-Hexanone	ND	0.36	10		µg/L	1	3/3/2016 3:18:43 PM	R32574
Isopropylbenzene	0.21	0.098	1.0	J	µg/L	1	3/3/2016 3:18:43 PM	R32574
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/3/2016 3:18:43 PM	R32574
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
n-Butylbenzene	0.17	0.16	3.0	J	µg/L	1	3/3/2016 3:18:43 PM	R32574
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
sec-Butylbenzene	0.93	0.11	1.0	J	µg/L	1	3/3/2016 3:18:43 PM	R32574
Styrene	ND	0.095	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
1,1,1-Trichloroethane	0.55	0.063	1.0	J	µg/L	1	3/3/2016 3:18:43 PM	R32574
1,1,2-Trichloroethane	1.6	0.077	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/3/2016 3:18:43 PM	R32574
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/3/2016 3:18:43 PM	R32574
Surr: 1,2-Dichloroethane-d4	90.6	0	70-130		%Rec	1	3/3/2016 3:18:43 PM	R32574

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Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	3/3/2016 3:18:43 PM	R32574
Surr: Dibromofluoromethane	100	0	70-130		%Rec	1	3/3/2016 3:18:43 PM	R32574
Surr: Toluene-d8	102	0	70-130		%Rec	1	3/3/2016 3:18:43 PM	R32574

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 4:50:00 PM
Lab ID: 1602B49-005
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/1/2016 3:20:59 PM	24002
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/1/2016 3:20:59 PM	24002
Surr: DNOP	96.3	0	70-141		%Rec	1	3/1/2016 3:20:59 PM	24002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	3/1/2016 6:11:18 PM	A32486
Surr: BFB	87.6	0	49.5-130		%Rec	1	3/1/2016 6:11:18 PM	A32486
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.47	0.023	0.10		mg/L	1	3/3/2016 1:55:55 AM	R32541
Chloride	790	2.7	50		mg/L	100	3/9/2016 8:49:18 PM	R32693
Bromide	4.5	0.65	2.0		mg/L	20	3/3/2016 2:08:19 AM	R32541
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	3/3/2016 1:55:55 AM	R32541
Sulfate	74	1.3	10		mg/L	20	3/3/2016 2:08:19 AM	R32541
Nitrate+Nitrite as N	4.7	0.42	1.0		mg/L	5	3/1/2016 12:19:38 PM	R32498
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.070	0.0013	0.0020		mg/L	1	3/11/2016 4:46:21 PM	C32754
Cadmium	ND	0.00075	0.0020		mg/L	1	3/11/2016 4:46:21 PM	C32754
Calcium	16	0.26	1.0		mg/L	1	3/11/2016 4:46:21 PM	C32754
Chromium	0.0025	0.0018	0.0060	J	mg/L	1	3/11/2016 4:46:21 PM	C32754
Copper	ND	0.0040	0.0060		mg/L	1	3/15/2016 12:41:37 PM	A32792
Iron	0.074	0.0091	0.020		mg/L	1	3/16/2016 11:36:18 AM	B32831
Magnesium	2.0	0.013	1.0		mg/L	1	3/11/2016 4:46:21 PM	C32754
Manganese	0.0068	0.00032	0.0020		mg/L	1	3/11/2016 4:46:21 PM	C32754
Potassium	2.4	0.18	1.0		mg/L	1	3/11/2016 4:46:21 PM	C32754
Silver	ND	0.0028	0.0050		mg/L	1	3/11/2016 4:46:21 PM	C32754
Sodium	600	0.96	10		mg/L	10	3/16/2016 11:38:21 AM	B32831
Zinc	0.0063	0.0028	0.010	J	mg/L	1	3/16/2016 11:36:18 AM	B32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.12	0.0011	0.0020		mg/L	1	3/11/2016 3:05:21 PM	24015
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 3:05:21 PM	24015
Chromium	0.0027	0.0022	0.0060	J	mg/L	1	3/11/2016 3:05:21 PM	24015
Copper	ND	0.0051	0.0060		mg/L	1	3/11/2016 3:05:21 PM	24015
Iron	2.4	0.036	0.10	*	mg/L	5	3/11/2016 3:07:16 PM	24015
Manganese	0.12	0.0015	0.0020	*	mg/L	1	3/11/2016 3:05:21 PM	24015
Silver	ND	0.0021	0.0050		mg/L	1	3/23/2016 11:12:41 AM	24381
Zinc	0.013	0.0039	0.010		mg/L	1	3/11/2016 3:05:21 PM	24015
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0051	0.00065	0.010	J	mg/L	10	3/22/2016 6:20:13 PM	B32978

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Collection Date: 2/24/2016 4:50:00 PM
Lab ID: 1602B49-005
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00035	0.00013	0.0025	J	mg/L	5	3/22/2016 6:17:10 PM	B32978
Selenium	0.047	0.00097	0.0050		mg/L	5	3/22/2016 6:17:10 PM	B32978
Uranium	0.023	0.000024	0.0025		mg/L	5	3/22/2016 6:17:10 PM	B32978
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0049	0.0015	0.0050	J	mg/L	5	3/11/2016 3:10:58 PM	24015
Lead	0.0035	0.00024	0.0025		mg/L	5	3/11/2016 3:10:58 PM	24015
Selenium	0.044	0.00062	0.0050		mg/L	5	3/11/2016 3:10:58 PM	24015
Uranium	0.022	0.000025	0.0025		mg/L	5	3/11/2016 3:10:58 PM	24015
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/2/2016 1:12:06 PM	24021
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Aniline	ND	9.8	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/3/2016 4:38:59 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/3/2016 4:38:59 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Carbazole	ND	7.2	10		µg/L	1	3/3/2016 4:38:59 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/3/2016 4:38:59 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/3/2016 4:38:59 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/3/2016 4:38:59 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/3/2016 4:38:59 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/3/2016 4:38:59 PM	24000

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 4:50:00 PM
Lab ID: 1602B49-005 **Matrix:** AQUEOUS **Received Date:** 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/3/2016 4:38:59 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/3/2016 4:38:59 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/3/2016 4:38:59 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/3/2016 4:38:59 PM	24000
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/3/2016 4:38:59 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/3/2016 4:38:59 PM	24000
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/3/2016 4:38:59 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/3/2016 4:38:59 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/3/2016 4:38:59 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/3/2016 4:38:59 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Fluorene	ND	7.2	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/3/2016 4:38:59 PM	24000
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/3/2016 4:38:59 PM	24000
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/3/2016 4:38:59 PM	24000
2-Methylphenol	ND	8.2	10		µg/L	1	3/3/2016 4:38:59 PM	24000
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/3/2016 4:38:59 PM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/3/2016 4:38:59 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/3/2016 4:38:59 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Naphthalene	ND	5.9	10		µg/L	1	3/3/2016 4:38:59 PM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/3/2016 4:38:59 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/3/2016 4:38:59 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/3/2016 4:38:59 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/3/2016 4:38:59 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/3/2016 4:38:59 PM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Phenol	ND	5.1	10		µg/L	1	3/3/2016 4:38:59 PM	24000

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 4:50:00 PM
Lab ID: 1602B49-005 **Matrix:** AQUEOUS **Received Date:** 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/3/2016 4:38:59 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/3/2016 4:38:59 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/3/2016 4:38:59 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/3/2016 4:38:59 PM	24000
Surr: 2-Fluorophenol	41.7	0	4.63-113		%Rec	1	3/3/2016 4:38:59 PM	24000
Surr: Phenol-d5	28.6	0	4.13-124		%Rec	1	3/3/2016 4:38:59 PM	24000
Surr: 2,4,6-Tribromophenol	56.4	0	5.14-132		%Rec	1	3/3/2016 4:38:59 PM	24000
Surr: Nitrobenzene-d5	80.4	0	9.13-140		%Rec	1	3/3/2016 4:38:59 PM	24000
Surr: 2-Fluorobiphenyl	74.6	0	10.8-132		%Rec	1	3/3/2016 4:38:59 PM	24000
Surr: 4-Terphenyl-d14	63.4	0	12.9-107		%Rec	1	3/3/2016 4:38:59 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	ND	0.096	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Toluene	ND	0.089	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Methyl tert-butyl ether (MTBE)	0.68	0.21	1.0	J	µg/L	1	3/3/2016 3:47:22 PM	R32574
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
1,2-Dichloroethane (EDC)	1.9	0.053	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Naphthalene	ND	0.083	2.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Acetone	ND	0.88	10		µg/L	1	3/3/2016 3:47:22 PM	R32574
Bromobenzene	ND	0.080	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Bromoform	ND	0.10	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Bromomethane	ND	0.78	3.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
2-Butanone	ND	0.32	10		µg/L	1	3/3/2016 3:47:22 PM	R32574
Carbon disulfide	ND	0.60	10		µg/L	1	3/3/2016 3:47:22 PM	R32574
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Chloroethane	ND	0.15	2.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Chloroform	ND	0.089	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Chloromethane	ND	0.21	3.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574

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Lab ID: 1602B49-005 **Matrix:** AQUEOUS **Received Date:** 2/26/2016 4:15:00 PM

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EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Dibromomethane	ND	0.12	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
1,1-Dichloroethane	2.6	0.11	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
1,1-Dichloroethene	4.1	0.076	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
2-Hexanone	ND	0.36	10		µg/L	1	3/3/2016 3:47:22 PM	R32574
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/3/2016 3:47:22 PM	R32574
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Styrene	ND	0.095	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
1,1,2-Trichloroethane	0.28	0.077	1.0	J	µg/L	1	3/3/2016 3:47:22 PM	R32574
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/3/2016 3:47:22 PM	R32574
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/3/2016 3:47:22 PM	R32574
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	3/3/2016 3:47:22 PM	R32574

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 4:50:00 PM
Lab ID: 1602B49-005
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	1	3/3/2016 3:47:22 PM	R32574
Surr: Dibromofluoromethane	105	0	70-130		%Rec	1	3/3/2016 3:47:22 PM	R32574
Surr: Toluene-d8	96.7	0	70-130		%Rec	1	3/3/2016 3:47:22 PM	R32574

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1602B49-006
Matrix: TRIP BLANK
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	3/1/2016 6:35:44 PM	A32486
Surr: BFB	83.7	0	49.5-130		%Rec	1	3/1/2016 6:35:44 PM	A32486
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	ND	0.096	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Toluene	ND	0.089	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Naphthalene	ND	0.083	2.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Acetone	ND	0.88	10		µg/L	1	3/4/2016 1:51:16 AM	B32574
Bromobenzene	ND	0.080	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Bromoform	ND	0.10	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Bromomethane	ND	0.78	3.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
2-Butanone	ND	0.32	10		µg/L	1	3/4/2016 1:51:16 AM	B32574
Carbon disulfide	ND	0.60	10		µg/L	1	3/4/2016 1:51:16 AM	B32574
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Chloroethane	ND	0.15	2.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Chloroform	ND	0.089	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Chloromethane	ND	0.21	3.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Dibromomethane	ND	0.12	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1602B49-006
Matrix: TRIP BLANK
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
2-Hexanone	ND	0.36	10		µg/L	1	3/4/2016 1:51:16 AM	B32574
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/4/2016 1:51:16 AM	B32574
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Styrene	ND	0.095	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/4/2016 1:51:16 AM	B32574
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/4/2016 1:51:16 AM	B32574
Surr: 1,2-Dichloroethane-d4	90.9	0	70-130		%Rec	1	3/4/2016 1:51:16 AM	B32574
Surr: 4-Bromofluorobenzene	94.8	0	70-130		%Rec	1	3/4/2016 1:51:16 AM	B32574
Surr: Dibromofluoromethane	102	0	70-130		%Rec	1	3/4/2016 1:51:16 AM	B32574
Surr: Toluene-d8	103	0	70-130		%Rec	1	3/4/2016 1:51:16 AM	B32574

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-1
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 10:10:00 AM
Lab ID: 1602B49-007
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	3.0	0.69	1.0		mg/L	1	3/1/2016 3:42:29 PM	24002
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/1/2016 3:42:29 PM	24002
Surr: DNOP	97.7	0	70-141		%Rec	1	3/1/2016 3:42:29 PM	24002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	51	1.3	2.5		mg/L	50	3/1/2016 8:38:50 PM	A32486
Surr: BFB	94.8	0	49.5-130		%Rec	50	3/1/2016 8:38:50 PM	A32486
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.023	0.10		mg/L	1	3/3/2016 2:20:44 AM	A32541
Chloride	470	1.4	25		mg/L	50	3/9/2016 9:01:42 PM	R32693
Bromide	2.6	0.65	2.0		mg/L	20	3/3/2016 2:33:09 AM	A32541
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	3/3/2016 2:20:44 AM	A32541
Sulfate	0.55	0.064	0.50		mg/L	1	3/3/2016 2:20:44 AM	A32541
Nitrate+Nitrite as N	2.6	0.42	1.0		mg/L	5	3/1/2016 12:32:02 PM	R32498
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	3.2	0.013	0.020	*	mg/L	10	3/16/2016 1:18:34 PM	D32831
Cadmium	ND	0.00075	0.0020		mg/L	1	3/11/2016 4:48:28 PM	C32754
Calcium	130	2.6	10		mg/L	10	3/16/2016 1:18:34 PM	D32831
Chromium	ND	0.0018	0.0060		mg/L	1	3/11/2016 4:48:28 PM	C32754
Copper	ND	0.0040	0.0060		mg/L	1	3/15/2016 12:45:43 PM	A32792
Iron	5.2	0.091	0.20	*	mg/L	10	3/16/2016 1:18:34 PM	D32831
Magnesium	27	0.013	1.0		mg/L	1	3/11/2016 4:48:28 PM	C32754
Manganese	2.1	0.0032	0.020	*	mg/L	10	3/16/2016 1:18:34 PM	D32831
Potassium	0.81	0.18	1.0	J	mg/L	1	3/11/2016 4:48:28 PM	C32754
Silver	ND	0.0028	0.0050		mg/L	1	3/11/2016 4:48:28 PM	C32754
Sodium	490	0.96	10		mg/L	10	3/16/2016 1:18:34 PM	D32831
Zinc	0.077	0.0028	0.010		mg/L	1	3/16/2016 1:16:54 PM	D32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	3.3	0.011	0.020	*	mg/L	10	3/11/2016 3:10:55 PM	24015
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 3:09:14 PM	24015
Chromium	ND	0.0022	0.0060		mg/L	1	3/11/2016 3:09:14 PM	24015
Copper	ND	0.0051	0.0060		mg/L	1	3/11/2016 3:09:14 PM	24015
Iron	5.5	0.072	0.20	*	mg/L	10	3/11/2016 3:10:55 PM	24015
Manganese	2.2	0.015	0.020	*	mg/L	10	3/11/2016 3:10:55 PM	24015
Silver	ND	0.0021	0.0050		mg/L	1	3/23/2016 11:16:21 AM	24381
Zinc	0.0099	0.0039	0.010	J	mg/L	1	3/11/2016 3:09:14 PM	24015
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0018	0.000065	0.0010		mg/L	1	3/15/2016 5:36:47 PM	C32805

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-1
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 10:10:00 AM
Lab ID: 1602B49-007
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00013	0.0025		mg/L	5	3/22/2016 7:42:57 PM	C32978
Selenium	0.0046	0.00097	0.0050	J	mg/L	5	3/22/2016 7:42:57 PM	C32978
Uranium	0.00017	0.000024	0.0025	J	mg/L	5	3/22/2016 7:42:57 PM	C32978
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0020	0.00029	0.0010		mg/L	1	3/11/2016 1:27:30 PM	24015
Lead	0.0011	0.000047	0.00050		mg/L	1	3/11/2016 1:27:30 PM	24015
Selenium	0.0028	0.00062	0.0050	J	mg/L	5	3/11/2016 3:32:06 PM	24015
Uranium	0.00029	0.0000049	0.00050	J	mg/L	1	3/11/2016 1:27:30 PM	24015
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/2/2016 1:14:10 PM	24021
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Aniline	9.9	9.8	10	J	µg/L	1	3/3/2016 5:09:13 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/3/2016 5:09:13 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/3/2016 5:09:13 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Carbazole	ND	7.2	10		µg/L	1	3/3/2016 5:09:13 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/3/2016 5:09:13 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/3/2016 5:09:13 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/3/2016 5:09:13 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/3/2016 5:09:13 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/3/2016 5:09:13 PM	24000

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-1
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 10:10:00 AM
Lab ID: 1602B49-007
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/3/2016 5:09:13 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/3/2016 5:09:13 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/3/2016 5:09:13 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/3/2016 5:09:13 PM	24000
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/3/2016 5:09:13 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/3/2016 5:09:13 PM	24000
2,4-Dimethylphenol	26	4.7	10		µg/L	1	3/3/2016 5:09:13 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/3/2016 5:09:13 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/3/2016 5:09:13 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/3/2016 5:09:13 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Fluorene	ND	7.2	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/3/2016 5:09:13 PM	24000
1-Methylnaphthalene	52	6.8	10		µg/L	1	3/3/2016 5:09:13 PM	24000
2-Methylnaphthalene	22	7.0	10		µg/L	1	3/3/2016 5:09:13 PM	24000
2-Methylphenol	38	8.2	10		µg/L	1	3/3/2016 5:09:13 PM	24000
3+4-Methylphenol	46	7.1	10		µg/L	1	3/3/2016 5:09:13 PM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/3/2016 5:09:13 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/3/2016 5:09:13 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Naphthalene	88	5.9	10		µg/L	1	3/3/2016 5:09:13 PM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/3/2016 5:09:13 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/3/2016 5:09:13 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/3/2016 5:09:13 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/3/2016 5:09:13 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/3/2016 5:09:13 PM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Phenol	12	5.1	10		µg/L	1	3/3/2016 5:09:13 PM	24000

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-1
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 10:10:00 AM
Lab ID: 1602B49-007
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/3/2016 5:09:13 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/3/2016 5:09:13 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/3/2016 5:09:13 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/3/2016 5:09:13 PM	24000
Surr: 2-Fluorophenol	38.4	0	4.63-113		%Rec	1	3/3/2016 5:09:13 PM	24000
Surr: Phenol-d5	37.0	0	4.13-124		%Rec	1	3/3/2016 5:09:13 PM	24000
Surr: 2,4,6-Tribromophenol	76.4	0	5.14-132		%Rec	1	3/3/2016 5:09:13 PM	24000
Surr: Nitrobenzene-d5	81.5	0	9.13-140		%Rec	1	3/3/2016 5:09:13 PM	24000
Surr: 2-Fluorobiphenyl	93.4	0	10.8-132		%Rec	1	3/3/2016 5:09:13 PM	24000
Surr: 4-Terphenyl-d14	65.0	0	12.9-107		%Rec	1	3/3/2016 5:09:13 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	9500	48	500		µg/L	500	3/3/2016 4:16:06 PM	R32574
Toluene	1800	4.5	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
Ethylbenzene	850	5.6	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
Methyl tert-butyl ether (MTBE)	330	11	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
1,2,4-Trimethylbenzene	660	5.2	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
1,3,5-Trimethylbenzene	30	5.8	50	J	µg/L	50	3/3/2016 4:44:46 PM	R32574
1,2-Dichloroethane (EDC)	9.1	2.6	50	J	µg/L	50	3/3/2016 4:44:46 PM	R32574
1,2-Dibromoethane (EDB)	ND	5.6	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
Naphthalene	110	4.2	100		µg/L	50	3/3/2016 4:44:46 PM	R32574
1-Methylnaphthalene	67	10	200	J	µg/L	50	3/3/2016 4:44:46 PM	R32574
2-Methylnaphthalene	35	7.9	200	J	µg/L	50	3/3/2016 4:44:46 PM	R32574
Acetone	160	44	500	J	µg/L	50	3/3/2016 4:44:46 PM	R32574
Bromobenzene	ND	4.0	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
Bromodichloromethane	ND	4.9	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
Bromoform	ND	5.1	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
Bromomethane	ND	39	150		µg/L	50	3/3/2016 4:44:46 PM	R32574
2-Butanone	ND	16	500		µg/L	50	3/3/2016 4:44:46 PM	R32574
Carbon disulfide	ND	30	500		µg/L	50	3/3/2016 4:44:46 PM	R32574
Carbon Tetrachloride	ND	5.4	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
Chlorobenzene	ND	5.2	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
Chloroethane	ND	7.3	100		µg/L	50	3/3/2016 4:44:46 PM	R32574
Chloroform	ND	4.4	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
Chloromethane	ND	11	150		µg/L	50	3/3/2016 4:44:46 PM	R32574
2-Chlorotoluene	ND	20	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
4-Chlorotoluene	ND	6.4	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
cis-1,2-DCE	26	6.2	50	J	µg/L	50	3/3/2016 4:44:46 PM	R32574
cis-1,3-Dichloropropene	ND	5.0	50		µg/L	50	3/3/2016 4:44:46 PM	R32574

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-1
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 10:10:00 AM
Lab ID: 1602B49-007
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	7.7	100		µg/L	50	3/3/2016 4:44:46 PM	R32574
Dibromochloromethane	ND	4.3	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
Dibromomethane	ND	6.0	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
1,2-Dichlorobenzene	ND	20	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
1,3-Dichlorobenzene	ND	7.2	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
1,4-Dichlorobenzene	ND	7.1	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
Dichlorodifluoromethane	ND	16	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
1,1-Dichloroethane	60	5.4	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
1,1-Dichloroethene	25	3.8	50	J	µg/L	50	3/3/2016 4:44:46 PM	R32574
1,2-Dichloropropane	ND	2.4	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
1,3-Dichloropropane	ND	7.8	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
2,2-Dichloropropane	ND	6.0	100		µg/L	50	3/3/2016 4:44:46 PM	R32574
1,1-Dichloropropene	ND	6.7	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
Hexachlorobutadiene	ND	9.9	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
2-Hexanone	ND	18	500		µg/L	50	3/3/2016 4:44:46 PM	R32574
Isopropylbenzene	46	4.9	50	J	µg/L	50	3/3/2016 4:44:46 PM	R32574
4-Isopropyltoluene	ND	7.0	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
4-Methyl-2-pentanone	ND	7.5	500		µg/L	50	3/3/2016 4:44:46 PM	R32574
Methylene Chloride	16	3.1	150	J	µg/L	50	3/3/2016 4:44:46 PM	R32574
n-Butylbenzene	22	8.0	150	J	µg/L	50	3/3/2016 4:44:46 PM	R32574
n-Propylbenzene	160	6.6	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
sec-Butylbenzene	8.2	5.4	50	J	µg/L	50	3/3/2016 4:44:46 PM	R32574
Styrene	ND	4.8	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
tert-Butylbenzene	ND	4.8	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
1,1,1,2-Tetrachloroethane	ND	5.6	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
1,1,2,2-Tetrachloroethane	ND	5.3	100		µg/L	50	3/3/2016 4:44:46 PM	R32574
Tetrachloroethene (PCE)	ND	7.6	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
trans-1,2-DCE	ND	20	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
trans-1,3-Dichloropropene	ND	4.2	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
1,2,3-Trichlorobenzene	ND	5.6	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
1,2,4-Trichlorobenzene	ND	6.6	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
1,1,1-Trichloroethane	ND	3.2	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
1,1,2-Trichloroethane	ND	3.8	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
Trichloroethene (TCE)	ND	8.8	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
Trichlorofluoromethane	ND	4.4	50		µg/L	50	3/3/2016 4:44:46 PM	R32574
1,2,3-Trichloropropane	ND	5.6	100		µg/L	50	3/3/2016 4:44:46 PM	R32574
Vinyl chloride	22	3.2	50	J	µg/L	50	3/3/2016 4:44:46 PM	R32574
Xylenes, Total	1000	16	75		µg/L	50	3/3/2016 4:44:46 PM	R32574
Surr: 1,2-Dichloroethane-d4	93.1	0	70-130		%Rec	50	3/3/2016 4:44:46 PM	R32574

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-1
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 10:10:00 AM
Lab ID: 1602B49-007
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	87.5	0	70-130		%Rec	50	3/3/2016 4:44:46 PM	R32574
Surr: Dibromofluoromethane	104	0	70-130		%Rec	50	3/3/2016 4:44:46 PM	R32574
Surr: Toluene-d8	100	0	70-130		%Rec	50	3/3/2016 4:44:46 PM	R32574

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-2
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 11:35:00 AM
Lab ID: 1602B49-008
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/1/2016 4:03:56 PM	24002
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/1/2016 4:03:56 PM	24002
Surr: DNOP	97.7	0	70-141		%Rec	1	3/1/2016 4:03:56 PM	24002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	1.2	0.13	0.25		mg/L	5	3/1/2016 9:03:29 PM	A32486
Surr: BFB	88.9	0	49.5-130		%Rec	5	3/1/2016 9:03:29 PM	A32486
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	1.8	0.11	0.50		mg/L	5	3/3/2016 2:45:34 AM	A32541
Chloride	520	1.4	25		mg/L	50	3/9/2016 9:14:07 PM	R32693
Bromide	1.7	0.16	0.50		mg/L	5	3/3/2016 2:45:34 AM	A32541
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5	H	mg/L	5	3/3/2016 2:45:34 AM	A32541
Sulfate	160	0.32	2.5		mg/L	5	3/3/2016 2:45:34 AM	A32541
Nitrate+Nitrite as N	8.8	0.42	1.0		mg/L	5	3/1/2016 12:44:26 PM	R32498
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.095	0.0013	0.0020		mg/L	1	3/11/2016 4:50:09 PM	C32754
Cadmium	ND	0.00075	0.0020		mg/L	1	3/11/2016 4:50:09 PM	C32754
Calcium	68	0.26	1.0		mg/L	1	3/11/2016 4:50:09 PM	C32754
Chromium	ND	0.0018	0.0060		mg/L	1	3/11/2016 4:50:09 PM	C32754
Copper	ND	0.0040	0.0060		mg/L	1	3/15/2016 12:49:24 PM	A32792
Iron	0.55	0.0091	0.020	*	mg/L	1	3/16/2016 1:26:14 PM	D32831
Magnesium	10	0.013	1.0		mg/L	1	3/11/2016 4:50:09 PM	C32754
Manganese	0.39	0.00032	0.0020	*	mg/L	1	3/11/2016 4:50:09 PM	C32754
Potassium	3.1	0.18	1.0		mg/L	1	3/11/2016 4:50:09 PM	C32754
Silver	ND	0.0028	0.0050		mg/L	1	3/11/2016 4:50:09 PM	C32754
Sodium	600	0.96	10		mg/L	10	3/16/2016 1:28:15 PM	D32831
Zinc	0.074	0.0028	0.010		mg/L	1	3/16/2016 1:26:14 PM	D32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.73	0.0011	0.0020		mg/L	1	3/11/2016 3:12:51 PM	24015
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 3:12:51 PM	24015
Chromium	0.0098	0.0022	0.0060		mg/L	1	3/11/2016 3:12:51 PM	24015
Copper	0.018	0.0051	0.0060		mg/L	1	3/11/2016 3:12:51 PM	24015
Iron	14	0.14	0.40	*	mg/L	20	3/11/2016 3:16:24 PM	24015
Manganese	1.1	0.0076	0.010	*	mg/L	5	3/11/2016 3:14:38 PM	24015
Silver	ND	0.0021	0.0050		mg/L	1	3/23/2016 11:19:53 AM	24381
Zinc	0.057	0.0039	0.010		mg/L	1	3/11/2016 3:12:51 PM	24015
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0027	0.000065	0.0010		mg/L	1	3/15/2016 5:39:51 PM	C32805

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Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-2
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 11:35:00 AM
Lab ID: 1602B49-008
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.0020	0.00013	0.0025	J	mg/L	5	3/22/2016 7:46:01 PM	C32978
Selenium	0.0033	0.00097	0.0050	J	mg/L	5	3/22/2016 7:46:01 PM	C32978
Uranium	0.059	0.000024	0.0025	*	mg/L	5	3/22/2016 7:46:01 PM	C32978
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0045	0.00029	0.0010		mg/L	1	3/11/2016 1:30:31 PM	24015
Lead	0.023	0.00024	0.0025	*	mg/L	5	3/11/2016 3:35:07 PM	24015
Selenium	0.0033	0.00062	0.0050	J	mg/L	5	3/11/2016 3:35:07 PM	24015
Uranium	0.063	0.000025	0.0025	*	mg/L	5	3/11/2016 3:35:07 PM	24015
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	0.000056	0.000053	0.00020	J	mg/L	1	3/2/2016 1:16:14 PM	24021
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Aniline	ND	9.8	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/3/2016 6:39:44 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/3/2016 6:39:44 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Carbazole	ND	7.2	10		µg/L	1	3/3/2016 6:39:44 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/3/2016 6:39:44 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/3/2016 6:39:44 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/3/2016 6:39:44 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/3/2016 6:39:44 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/3/2016 6:39:44 PM	24000

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-2
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 11:35:00 AM
Lab ID: 1602B49-008
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/3/2016 6:39:44 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/3/2016 6:39:44 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/3/2016 6:39:44 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/3/2016 6:39:44 PM	24000
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/3/2016 6:39:44 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/3/2016 6:39:44 PM	24000
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/3/2016 6:39:44 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/3/2016 6:39:44 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/3/2016 6:39:44 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/3/2016 6:39:44 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Fluorene	ND	7.2	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/3/2016 6:39:44 PM	24000
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/3/2016 6:39:44 PM	24000
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/3/2016 6:39:44 PM	24000
2-Methylphenol	ND	8.2	10		µg/L	1	3/3/2016 6:39:44 PM	24000
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/3/2016 6:39:44 PM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/3/2016 6:39:44 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/3/2016 6:39:44 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Naphthalene	ND	5.9	10		µg/L	1	3/3/2016 6:39:44 PM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/3/2016 6:39:44 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/3/2016 6:39:44 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/3/2016 6:39:44 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/3/2016 6:39:44 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/3/2016 6:39:44 PM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Phenol	ND	5.1	10		µg/L	1	3/3/2016 6:39:44 PM	24000

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-2
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 11:35:00 AM
Lab ID: 1602B49-008
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/3/2016 6:39:44 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/3/2016 6:39:44 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/3/2016 6:39:44 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/3/2016 6:39:44 PM	24000
Surr: 2-Fluorophenol	49.0	0	4.63-113		%Rec	1	3/3/2016 6:39:44 PM	24000
Surr: Phenol-d5	34.2	0	4.13-124		%Rec	1	3/3/2016 6:39:44 PM	24000
Surr: 2,4,6-Tribromophenol	84.5	0	5.14-132		%Rec	1	3/3/2016 6:39:44 PM	24000
Surr: Nitrobenzene-d5	80.6	0	9.13-140		%Rec	1	3/3/2016 6:39:44 PM	24000
Surr: 2-Fluorobiphenyl	87.0	0	10.8-132		%Rec	1	3/3/2016 6:39:44 PM	24000
Surr: 4-Terphenyl-d14	70.0	0	12.9-107		%Rec	1	3/3/2016 6:39:44 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	110	0.48	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
Toluene	0.95	0.45	5.0	J	µg/L	5	3/3/2016 5:13:24 PM	R32574
Ethylbenzene	1.1	0.56	5.0	J	µg/L	5	3/3/2016 5:13:24 PM	R32574
Methyl tert-butyl ether (MTBE)	36	1.1	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
1,2,4-Trimethylbenzene	1.3	0.52	5.0	J	µg/L	5	3/3/2016 5:13:24 PM	R32574
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
1,2-Dichloroethane (EDC)	15	0.26	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
Naphthalene	ND	0.42	10		µg/L	5	3/3/2016 5:13:24 PM	R32574
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/3/2016 5:13:24 PM	R32574
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/3/2016 5:13:24 PM	R32574
Acetone	4.6	4.4	50	J	µg/L	5	3/3/2016 5:13:24 PM	R32574
Bromobenzene	ND	0.40	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
Bromoform	ND	0.51	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
Bromomethane	ND	3.9	15		µg/L	5	3/3/2016 5:13:24 PM	R32574
2-Butanone	ND	1.6	50		µg/L	5	3/3/2016 5:13:24 PM	R32574
Carbon disulfide	ND	3.0	50		µg/L	5	3/3/2016 5:13:24 PM	R32574
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
Chloroethane	ND	0.73	10		µg/L	5	3/3/2016 5:13:24 PM	R32574
Chloroform	ND	0.44	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
Chloromethane	ND	1.1	15		µg/L	5	3/3/2016 5:13:24 PM	R32574
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
cis-1,2-DCE	5.8	0.62	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-2
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 11:35:00 AM
Lab ID: 1602B49-008
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/3/2016 5:13:24 PM	R32574
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
Dibromomethane	ND	0.60	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
1,1-Dichloroethane	58	0.54	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
1,1-Dichloroethene	110	0.38	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/3/2016 5:13:24 PM	R32574
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
2-Hexanone	ND	1.8	50		µg/L	5	3/3/2016 5:13:24 PM	R32574
Isopropylbenzene	4.0	0.49	5.0	J	µg/L	5	3/3/2016 5:13:24 PM	R32574
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/3/2016 5:13:24 PM	R32574
Methylene Chloride	1.7	0.31	15	J	µg/L	5	3/3/2016 5:13:24 PM	R32574
n-Butylbenzene	ND	0.80	15		µg/L	5	3/3/2016 5:13:24 PM	R32574
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
Styrene	ND	0.48	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/3/2016 5:13:24 PM	R32574
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
1,1,1-Trichloroethane	1.7	0.32	5.0	J	µg/L	5	3/3/2016 5:13:24 PM	R32574
1,1,2-Trichloroethane	1.9	0.38	5.0	J	µg/L	5	3/3/2016 5:13:24 PM	R32574
Trichloroethene (TCE)	7.3	0.88	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/3/2016 5:13:24 PM	R32574
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/3/2016 5:13:24 PM	R32574
Vinyl chloride	1.6	0.32	5.0	J	µg/L	5	3/3/2016 5:13:24 PM	R32574
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/3/2016 5:13:24 PM	R32574
Surr: 1,2-Dichloroethane-d4	95.6	0	70-130		%Rec	5	3/3/2016 5:13:24 PM	R32574

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-2
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 11:35:00 AM
Lab ID: 1602B49-008
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	109	0	70-130		%Rec	5	3/3/2016 5:13:24 PM	R32574
Surr: Dibromofluoromethane	98.5	0	70-130		%Rec	5	3/3/2016 5:13:24 PM	R32574
Surr: Toluene-d8	98.2	0	70-130		%Rec	5	3/3/2016 5:13:24 PM	R32574

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 12:45:00 PM
Lab ID: 1602B49-009
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/1/2016 4:25:32 PM	24002
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/1/2016 4:25:32 PM	24002
Surr: DNOP	101	0	70-141		%Rec	1	3/1/2016 4:25:32 PM	24002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	3/1/2016 9:28:06 PM	A32486
Surr: BFB	82.2	0	49.5-130		%Rec	1	3/1/2016 9:28:06 PM	A32486
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.45	0.11	0.50	J	mg/L	5	3/3/2016 3:10:24 AM	A32541
Chloride	270	0.55	10		mg/L	20	3/3/2016 3:22:48 AM	A32541
Bromide	1.1	0.16	0.50		mg/L	5	3/3/2016 3:10:24 AM	A32541
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5	H	mg/L	5	3/3/2016 3:10:24 AM	A32541
Sulfate	100	0.32	2.5		mg/L	5	3/3/2016 3:10:24 AM	A32541
Nitrate+Nitrite as N	1.1	0.42	1.0		mg/L	5	3/1/2016 12:56:51 PM	R32498
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.072	0.0013	0.0020		mg/L	1	3/11/2016 4:52:08 PM	C32754
Cadmium	ND	0.00075	0.0020		mg/L	1	3/11/2016 4:52:08 PM	C32754
Calcium	24	0.26	1.0		mg/L	1	3/11/2016 4:52:08 PM	C32754
Chromium	0.0090	0.0018	0.0060		mg/L	1	3/11/2016 4:52:08 PM	C32754
Copper	ND	0.0040	0.0060		mg/L	1	3/15/2016 1:01:53 PM	A32792
Iron	0.13	0.0091	0.020		mg/L	1	3/16/2016 1:30:11 PM	D32831
Magnesium	1.1	0.013	1.0		mg/L	1	3/11/2016 4:52:08 PM	C32754
Manganese	0.0046	0.00032	0.0020		mg/L	1	3/11/2016 4:52:08 PM	C32754
Potassium	2.3	0.18	1.0		mg/L	1	3/11/2016 4:52:08 PM	C32754
Silver	ND	0.0028	0.0050		mg/L	1	3/11/2016 4:52:08 PM	C32754
Sodium	530	0.96	10		mg/L	10	3/16/2016 1:32:15 PM	D32831
Zinc	0.014	0.0028	0.010		mg/L	1	3/16/2016 1:30:11 PM	D32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.10	0.0011	0.0020		mg/L	1	3/11/2016 3:18:24 PM	24015
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 3:18:24 PM	24015
Chromium	0.0098	0.0022	0.0060		mg/L	1	3/11/2016 3:18:24 PM	24015
Copper	ND	0.0051	0.0060		mg/L	1	3/11/2016 3:18:24 PM	24015
Iron	2.9	0.036	0.10	*	mg/L	5	3/11/2016 3:20:14 PM	24015
Manganese	0.056	0.0015	0.0020	*	mg/L	1	3/11/2016 3:18:24 PM	24015
Silver	ND	0.0021	0.0050		mg/L	1	3/23/2016 11:31:24 AM	24381
Zinc	0.013	0.0039	0.010		mg/L	1	3/11/2016 3:18:24 PM	24015
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0052	0.000065	0.0010		mg/L	1	3/15/2016 5:42:54 PM	C32805

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 12:45:00 PM
Lab ID: 1602B49-009
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00039	0.000026	0.00050	J	mg/L	1	3/15/2016 5:42:54 PM	C32805
Selenium	0.012	0.00019	0.0010		mg/L	1	3/15/2016 5:42:54 PM	C32805
Uranium	0.18	0.000096	0.010	*	mg/L	20	3/22/2016 7:49:04 PM	C32978
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0061	0.0058	0.020	J	mg/L	20	3/11/2016 3:41:08 PM	24015
Lead	0.0037	0.000047	0.00050		mg/L	1	3/11/2016 1:33:31 PM	24015
Selenium	0.016	0.0025	0.020	J	mg/L	20	3/11/2016 3:41:08 PM	24015
Uranium	0.18	0.000099	0.010	*	mg/L	20	3/11/2016 3:41:08 PM	24015
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/2/2016 1:18:20 PM	24021
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Aniline	ND	9.8	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/3/2016 7:09:57 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/3/2016 7:09:57 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Carbazole	ND	7.2	10		µg/L	1	3/3/2016 7:09:57 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/3/2016 7:09:57 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/3/2016 7:09:57 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/3/2016 7:09:57 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/3/2016 7:09:57 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/3/2016 7:09:57 PM	24000

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/3/2016 7:09:57 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/3/2016 7:09:57 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/3/2016 7:09:57 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/3/2016 7:09:57 PM	24000
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/3/2016 7:09:57 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/3/2016 7:09:57 PM	24000
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/3/2016 7:09:57 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/3/2016 7:09:57 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/3/2016 7:09:57 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/3/2016 7:09:57 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Fluorene	ND	7.2	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/3/2016 7:09:57 PM	24000
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/3/2016 7:09:57 PM	24000
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/3/2016 7:09:57 PM	24000
2-Methylphenol	ND	8.2	10		µg/L	1	3/3/2016 7:09:57 PM	24000
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/3/2016 7:09:57 PM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/3/2016 7:09:57 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/3/2016 7:09:57 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Naphthalene	ND	5.9	10		µg/L	1	3/3/2016 7:09:57 PM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/3/2016 7:09:57 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/3/2016 7:09:57 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/3/2016 7:09:57 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/3/2016 7:09:57 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/3/2016 7:09:57 PM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Phenol	ND	5.1	10		µg/L	1	3/3/2016 7:09:57 PM	24000

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Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/3/2016 7:09:57 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/3/2016 7:09:57 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/3/2016 7:09:57 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/3/2016 7:09:57 PM	24000
Surr: 2-Fluorophenol	50.2	0	4.63-113		%Rec	1	3/3/2016 7:09:57 PM	24000
Surr: Phenol-d5	36.4	0	4.13-124		%Rec	1	3/3/2016 7:09:57 PM	24000
Surr: 2,4,6-Tribromophenol	68.5	0	5.14-132		%Rec	1	3/3/2016 7:09:57 PM	24000
Surr: Nitrobenzene-d5	81.9	0	9.13-140		%Rec	1	3/3/2016 7:09:57 PM	24000
Surr: 2-Fluorobiphenyl	83.5	0	10.8-132		%Rec	1	3/3/2016 7:09:57 PM	24000
Surr: 4-Terphenyl-d14	57.8	0	12.9-107		%Rec	1	3/3/2016 7:09:57 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	ND	0.096	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Toluene	ND	0.089	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Naphthalene	ND	0.083	2.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Acetone	ND	0.88	10		µg/L	1	3/3/2016 5:42:13 PM	R32574
Bromobenzene	ND	0.080	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Bromoform	ND	0.10	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Bromomethane	ND	0.78	3.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
2-Butanone	ND	0.32	10		µg/L	1	3/3/2016 5:42:13 PM	R32574
Carbon disulfide	ND	0.60	10		µg/L	1	3/3/2016 5:42:13 PM	R32574
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Chloroethane	ND	0.15	2.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Chloroform	ND	0.089	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Chloromethane	ND	0.21	3.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574

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Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Dibromomethane	ND	0.12	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
2-Hexanone	ND	0.36	10		µg/L	1	3/3/2016 5:42:13 PM	R32574
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/3/2016 5:42:13 PM	R32574
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Styrene	ND	0.095	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/3/2016 5:42:13 PM	R32574
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/3/2016 5:42:13 PM	R32574
Surr: 1,2-Dichloroethane-d4	92.4	0	70-130		%Rec	1	3/3/2016 5:42:13 PM	R32574

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 12:45:00 PM
Lab ID: 1602B49-009
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	107	0	70-130		%Rec	1	3/3/2016 5:42:13 PM	R32574
Surr: Dibromofluoromethane	99.0	0	70-130		%Rec	1	3/3/2016 5:42:13 PM	R32574
Surr: Toluene-d8	101	0	70-130		%Rec	1	3/3/2016 5:42:13 PM	R32574

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1602B49-010
Matrix: TRIP BLANK
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	3/1/2016 9:52:36 PM	A32486
Surr: BFB	81.7	0	49.5-130		%Rec	1	3/1/2016 9:52:36 PM	A32486
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	ND	0.096	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Toluene	ND	0.089	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Naphthalene	ND	0.083	2.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Acetone	ND	0.88	10		µg/L	1	3/4/2016 2:20:02 AM	B32574
Bromobenzene	ND	0.080	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Bromoform	ND	0.10	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Bromomethane	ND	0.78	3.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
2-Butanone	ND	0.32	10		µg/L	1	3/4/2016 2:20:02 AM	B32574
Carbon disulfide	ND	0.60	10		µg/L	1	3/4/2016 2:20:02 AM	B32574
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Chloroethane	ND	0.15	2.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Chloroform	ND	0.089	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Chloromethane	ND	0.21	3.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Dibromomethane	ND	0.12	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1602B49-010
Matrix: TRIP BLANK
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
2-Hexanone	ND	0.36	10		µg/L	1	3/4/2016 2:20:02 AM	B32574
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/4/2016 2:20:02 AM	B32574
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Styrene	ND	0.095	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/4/2016 2:20:02 AM	B32574
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/4/2016 2:20:02 AM	B32574
Surr: 1,2-Dichloroethane-d4	97.9	0	70-130		%Rec	1	3/4/2016 2:20:02 AM	B32574
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	1	3/4/2016 2:20:02 AM	B32574
Surr: Dibromofluoromethane	105	0	70-130		%Rec	1	3/4/2016 2:20:02 AM	B32574
Surr: Toluene-d8	104	0	70-130		%Rec	1	3/4/2016 2:20:02 AM	B32574

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-23
Project: Quarterly GW Sampling
Collection Date: 2/25/2016 9:40:00 AM
Lab ID: 1602B49-011
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	56	0.69	1.0		mg/L	1	3/1/2016 4:46:58 PM	24002
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/1/2016 4:46:58 PM	24002
Surr: DNOP	109	0	70-141		%Rec	1	3/1/2016 4:46:58 PM	24002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	32	1.3	2.5		mg/L	50	3/1/2016 10:17:15 PM	A32486
Surr: BFB	96.4	0	49.5-130		%Rec	50	3/1/2016 10:17:15 PM	A32486
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.69	0.11	0.50		mg/L	5	3/3/2016 4:00:01 AM	A32541
Chloride	240	0.55	10		mg/L	20	3/3/2016 4:12:26 AM	A32541
Bromide	1.9	0.16	0.50		mg/L	5	3/3/2016 4:00:01 AM	A32541
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5	H	mg/L	5	3/3/2016 4:00:01 AM	A32541
Sulfate	0.38	0.32	2.5	J	mg/L	5	3/3/2016 4:00:01 AM	A32541
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	3/1/2016 1:09:16 PM	R32498
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.58	0.0013	0.0020		mg/L	1	3/11/2016 4:54:16 PM	C32754
Cadmium	ND	0.00075	0.0020		mg/L	1	3/11/2016 4:54:16 PM	C32754
Calcium	70	0.26	1.0		mg/L	1	3/11/2016 4:54:16 PM	C32754
Chromium	ND	0.0018	0.0060		mg/L	1	3/11/2016 4:54:16 PM	C32754
Copper	ND	0.0040	0.0060		mg/L	1	3/15/2016 1:05:46 PM	A32792
Iron	3.5	0.045	0.10	*	mg/L	5	3/16/2016 1:35:58 PM	D32831
Magnesium	12	0.013	1.0		mg/L	1	3/11/2016 4:54:16 PM	C32754
Manganese	1.8	0.0016	0.010	*	mg/L	5	3/16/2016 1:35:58 PM	D32831
Potassium	1.6	0.18	1.0		mg/L	1	3/11/2016 4:54:16 PM	C32754
Silver	ND	0.0028	0.0050		mg/L	1	3/11/2016 4:54:16 PM	C32754
Sodium	470	0.48	5.0		mg/L	5	3/16/2016 1:35:58 PM	D32831
Zinc	0.0083	0.0028	0.010	J	mg/L	1	3/16/2016 1:34:02 PM	D32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.67	0.0011	0.0020		mg/L	1	3/11/2016 3:27:49 PM	24015
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 3:27:49 PM	24015
Chromium	ND	0.0022	0.0060		mg/L	1	3/11/2016 3:27:49 PM	24015
Copper	ND	0.0051	0.0060		mg/L	1	3/11/2016 3:27:49 PM	24015
Iron	3.8	0.036	0.10	*	mg/L	5	3/11/2016 3:29:30 PM	24015
Manganese	1.6	0.0076	0.010	*	mg/L	5	3/11/2016 3:29:30 PM	24015
Silver	ND	0.0021	0.0050		mg/L	1	3/23/2016 11:35:02 AM	24381
Zinc	0.0054	0.0039	0.010	J	mg/L	1	3/11/2016 3:27:49 PM	24015
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.010	0.000065	0.0010	*	mg/L	1	3/15/2016 5:45:58 PM	C32805

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-23
Project: Quarterly GW Sampling
Collection Date: 2/25/2016 9:40:00 AM
Lab ID: 1602B49-011
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00038	0.000026	0.00050	J	mg/L	1	3/15/2016 5:45:58 PM	C32805
Selenium	0.0042	0.0019	0.010	J	mg/L	10	3/24/2016 5:07:28 PM	B33051
Uranium	0.0018	0.0000048	0.00050		mg/L	1	3/15/2016 5:45:58 PM	C32805
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0094	0.00029	0.0010		mg/L	1	3/11/2016 1:42:37 PM	24015
Lead	0.0025	0.000047	0.00050		mg/L	1	3/11/2016 1:42:37 PM	24015
Selenium	0.0035	0.00062	0.0050	J	mg/L	5	3/11/2016 3:44:09 PM	24015
Uranium	0.0027	0.0000049	0.00050		mg/L	1	3/11/2016 1:42:37 PM	24015
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/2/2016 1:20:26 PM	24021
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Aniline	ND	9.8	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/3/2016 7:40:01 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/3/2016 7:40:01 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Carbazole	ND	7.2	10		µg/L	1	3/3/2016 7:40:01 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/3/2016 7:40:01 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/3/2016 7:40:01 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/3/2016 7:40:01 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/3/2016 7:40:01 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/3/2016 7:40:01 PM	24000

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-23
Project: Quarterly GW Sampling
Collection Date: 2/25/2016 9:40:00 AM
Lab ID: 1602B49-011
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/3/2016 7:40:01 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/3/2016 7:40:01 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/3/2016 7:40:01 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/3/2016 7:40:01 PM	24000
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/3/2016 7:40:01 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/3/2016 7:40:01 PM	24000
2,4-Dimethylphenol	110	4.7	10		µg/L	1	3/3/2016 7:40:01 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/3/2016 7:40:01 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/3/2016 7:40:01 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/3/2016 7:40:01 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Fluorene	11	7.2	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/3/2016 7:40:01 PM	24000
1-Methylnaphthalene	220	6.8	10		µg/L	1	3/3/2016 7:40:01 PM	24000
2-Methylnaphthalene	230	7.0	10		µg/L	1	3/3/2016 7:40:01 PM	24000
2-Methylphenol	37	8.2	10		µg/L	1	3/3/2016 7:40:01 PM	24000
3+4-Methylphenol	24	7.1	10		µg/L	1	3/3/2016 7:40:01 PM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/3/2016 7:40:01 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/3/2016 7:40:01 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Naphthalene	230	120	200		µg/L	20	3/4/2016 10:41:57 AM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/3/2016 7:40:01 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/3/2016 7:40:01 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/3/2016 7:40:01 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/3/2016 7:40:01 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/3/2016 7:40:01 PM	24000
Phenanthrene	29	6.8	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Phenol	17	5.1	10		µg/L	1	3/3/2016 7:40:01 PM	24000

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Hall Environmental Analysis Laboratory, Inc.

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Project: Quarterly GW Sampling
Collection Date: 2/25/2016 9:40:00 AM
Lab ID: 1602B49-011
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/3/2016 7:40:01 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/3/2016 7:40:01 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/3/2016 7:40:01 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/3/2016 7:40:01 PM	24000
Surr: 2-Fluorophenol	22.1	0	4.63-113		%Rec	1	3/3/2016 7:40:01 PM	24000
Surr: Phenol-d5	21.9	0	4.13-124		%Rec	1	3/3/2016 7:40:01 PM	24000
Surr: 2,4,6-Tribromophenol	72.2	0	5.14-132		%Rec	1	3/3/2016 7:40:01 PM	24000
Surr: Nitrobenzene-d5	78.6	0	9.13-140		%Rec	1	3/3/2016 7:40:01 PM	24000
Surr: 2-Fluorobiphenyl	80.5	0	10.8-132		%Rec	1	3/3/2016 7:40:01 PM	24000
Surr: 4-Terphenyl-d14	60.3	0	12.9-107		%Rec	1	3/3/2016 7:40:01 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	3100	19	200		µg/L	200	3/3/2016 6:10:59 PM	R32574
Toluene	1200	1.8	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
Ethylbenzene	310	2.2	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
Methyl tert-butyl ether (MTBE)	1600	4.2	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
1,2,4-Trimethylbenzene	1300	2.1	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
1,3,5-Trimethylbenzene	350	2.3	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
1,2-Dichloroethane (EDC)	5.3	1.1	20	J	µg/L	20	3/3/2016 6:39:37 PM	R32574
1,2-Dibromoethane (EDB)	ND	2.2	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
Naphthalene	240	1.7	40		µg/L	20	3/3/2016 6:39:37 PM	R32574
1-Methylnaphthalene	85	4.1	80		µg/L	20	3/3/2016 6:39:37 PM	R32574
2-Methylnaphthalene	110	3.2	80		µg/L	20	3/3/2016 6:39:37 PM	R32574
Acetone	42	18	200	J	µg/L	20	3/3/2016 6:39:37 PM	R32574
Bromobenzene	ND	1.6	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
Bromodichloromethane	ND	2.0	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
Bromoform	ND	2.0	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
Bromomethane	ND	16	60		µg/L	20	3/3/2016 6:39:37 PM	R32574
2-Butanone	ND	6.4	200		µg/L	20	3/3/2016 6:39:37 PM	R32574
Carbon disulfide	ND	12	200		µg/L	20	3/3/2016 6:39:37 PM	R32574
Carbon Tetrachloride	ND	2.2	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
Chlorobenzene	ND	2.1	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
Chloroethane	ND	2.9	40		µg/L	20	3/3/2016 6:39:37 PM	R32574
Chloroform	ND	1.8	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
Chloromethane	ND	4.3	60		µg/L	20	3/3/2016 6:39:37 PM	R32574
2-Chlorotoluene	ND	8.0	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
4-Chlorotoluene	ND	2.6	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
cis-1,2-DCE	36	2.5	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
cis-1,3-Dichloropropene	ND	2.0	20		µg/L	20	3/3/2016 6:39:37 PM	R32574

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Hall Environmental Analysis Laboratory, Inc.

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Project: Quarterly GW Sampling
Collection Date: 2/25/2016 9:40:00 AM
Lab ID: 1602B49-011
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	3.1	40		µg/L	20	3/3/2016 6:39:37 PM	R32574
Dibromochloromethane	ND	1.7	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
Dibromomethane	ND	2.4	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
1,2-Dichlorobenzene	ND	8.0	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
1,3-Dichlorobenzene	ND	2.9	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
1,4-Dichlorobenzene	ND	2.9	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
Dichlorodifluoromethane	ND	6.5	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
1,1-Dichloroethane	110	2.2	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
1,1-Dichloroethene	58	1.5	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
1,2-Dichloropropane	ND	0.94	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
1,3-Dichloropropane	ND	3.1	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
2,2-Dichloropropane	ND	2.4	40		µg/L	20	3/3/2016 6:39:37 PM	R32574
1,1-Dichloropropene	ND	2.7	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
Hexachlorobutadiene	ND	4.0	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
2-Hexanone	ND	7.2	200		µg/L	20	3/3/2016 6:39:37 PM	R32574
Isopropylbenzene	29	2.0	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
4-Isopropyltoluene	9.7	2.8	20	J	µg/L	20	3/3/2016 6:39:37 PM	R32574
4-Methyl-2-pentanone	ND	3.0	200		µg/L	20	3/3/2016 6:39:37 PM	R32574
Methylene Chloride	ND	1.3	60		µg/L	20	3/3/2016 6:39:37 PM	R32574
n-Butylbenzene	17	3.2	60	J	µg/L	20	3/3/2016 6:39:37 PM	R32574
n-Propylbenzene	48	2.6	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
sec-Butylbenzene	10	2.2	20	J	µg/L	20	3/3/2016 6:39:37 PM	R32574
Styrene	ND	1.9	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
tert-Butylbenzene	ND	1.9	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
1,1,1,2-Tetrachloroethane	ND	2.2	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
1,1,2,2-Tetrachloroethane	ND	2.1	40		µg/L	20	3/3/2016 6:39:37 PM	R32574
Tetrachloroethene (PCE)	ND	3.0	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
trans-1,2-DCE	ND	8.0	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
trans-1,3-Dichloropropene	ND	1.7	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
1,2,3-Trichlorobenzene	ND	2.3	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
1,2,4-Trichlorobenzene	ND	2.7	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
1,1,1-Trichloroethane	14	1.3	20	J	µg/L	20	3/3/2016 6:39:37 PM	R32574
1,1,2-Trichloroethane	ND	1.5	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
Trichloroethene (TCE)	ND	3.5	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
Trichlorofluoromethane	ND	1.8	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
1,2,3-Trichloropropane	ND	2.2	40		µg/L	20	3/3/2016 6:39:37 PM	R32574
Vinyl chloride	ND	1.3	20		µg/L	20	3/3/2016 6:39:37 PM	R32574
Xylenes, Total	6700	65	300		µg/L	200	3/3/2016 6:10:59 PM	R32574
Surr: 1,2-Dichloroethane-d4	89.0	0	70-130		%Rec	20	3/3/2016 6:39:37 PM	R32574

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Project: Quarterly GW Sampling
Collection Date: 2/25/2016 9:40:00 AM
Lab ID: 1602B49-011
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	90.8	0	70-130		%Rec	20	3/3/2016 6:39:37 PM	R32574
Surr: Dibromofluoromethane	99.1	0	70-130		%Rec	20	3/3/2016 6:39:37 PM	R32574
Surr: Toluene-d8	98.9	0	70-130		%Rec	20	3/3/2016 6:39:37 PM	R32574

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-22
Project: Quarterly GW Sampling
Collection Date: 2/25/2016 10:55:00 AM
Lab ID: 1602B49-012
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	2.7	0.69	1.0		mg/L	1	3/1/2016 5:08:27 PM	24002
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/1/2016 5:08:27 PM	24002
Surr: DNOP	109	0	70-141		%Rec	1	3/1/2016 5:08:27 PM	24002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	24	0.51	1.0		mg/L	20	3/1/2016 10:41:50 PM	A32486
Surr: BFB	95.8	0	49.5-130		%Rec	20	3/1/2016 10:41:50 PM	A32486
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.37	0.023	0.10		mg/L	1	3/3/2016 4:24:51 AM	A32541
Chloride	95	0.55	10		mg/L	20	3/3/2016 4:37:16 AM	A32541
Bromide	0.75	0.032	0.10		mg/L	1	3/3/2016 4:24:51 AM	A32541
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	3/3/2016 4:24:51 AM	A32541
Sulfate	4.7	0.064	0.50		mg/L	1	3/3/2016 4:24:51 AM	A32541
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	3/1/2016 1:21:41 PM	R32498
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	1.3	0.013	0.020		mg/L	10	3/16/2016 1:39:37 PM	D32831
Cadmium	ND	0.00075	0.0020		mg/L	1	3/11/2016 4:55:58 PM	C32754
Calcium	120	2.6	10		mg/L	10	3/16/2016 1:39:37 PM	D32831
Chromium	ND	0.0018	0.0060		mg/L	1	3/11/2016 4:55:58 PM	C32754
Copper	ND	0.0040	0.0060		mg/L	1	3/15/2016 1:09:32 PM	A32792
Iron	6.3	0.091	0.20	*	mg/L	10	3/16/2016 1:39:37 PM	D32831
Magnesium	23	0.013	1.0		mg/L	1	3/11/2016 4:55:58 PM	C32754
Manganese	2.3	0.0032	0.020	*	mg/L	10	3/16/2016 1:39:37 PM	D32831
Potassium	1.0	0.18	1.0		mg/L	1	3/11/2016 4:55:58 PM	C32754
Silver	ND	0.0028	0.0050		mg/L	1	3/11/2016 4:55:58 PM	C32754
Sodium	250	0.96	10		mg/L	10	3/16/2016 1:39:37 PM	D32831
Zinc	0.011	0.0028	0.010		mg/L	1	3/16/2016 1:37:57 PM	D32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	2.0	0.0053	0.010		mg/L	5	3/11/2016 3:33:17 PM	24015
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 3:31:27 PM	24015
Chromium	0.012	0.0022	0.0060		mg/L	1	3/11/2016 3:31:27 PM	24015
Copper	0.013	0.0051	0.0060		mg/L	1	3/11/2016 3:31:27 PM	24015
Iron	20	0.36	1.0	*	mg/L	50	3/14/2016 2:01:17 PM	24015
Manganese	3.4	0.0076	0.010	*	mg/L	5	3/11/2016 3:33:17 PM	24015
Silver	ND	0.0021	0.0050		mg/L	1	3/23/2016 11:38:46 AM	24381
Zinc	0.039	0.0039	0.010		mg/L	1	3/11/2016 3:31:27 PM	24015
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0014	0.000065	0.0010		mg/L	1	3/15/2016 5:49:01 PM	C32805

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Hall Environmental Analysis Laboratory, Inc.

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Collection Date: 2/25/2016 10:55:00 AM
Lab ID: 1602B49-012
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00053	0.000026	0.00050		mg/L	1	3/15/2016 5:49:01 PM	C32805
Selenium	0.0015	0.00019	0.0010		mg/L	1	3/15/2016 5:49:01 PM	C32805
Uranium	0.0019	0.0000048	0.00050		mg/L	1	3/15/2016 5:49:01 PM	C32805
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0023	0.00029	0.0010		mg/L	1	3/11/2016 1:45:37 PM	24015
Lead	0.035	0.00024	0.0025	*	mg/L	5	3/11/2016 3:47:09 PM	24015
Selenium	0.0025	0.00062	0.0050	J	mg/L	5	3/11/2016 3:47:09 PM	24015
Uranium	0.0039	0.0000049	0.00050		mg/L	1	3/11/2016 1:45:37 PM	24015
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/2/2016 1:26:48 PM	24021
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Aniline	ND	9.8	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Anthracene	ND	6.6	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/4/2016 11:11:44 AM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/4/2016 11:11:44 AM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Carbazole	ND	7.2	10		µg/L	1	3/4/2016 11:11:44 AM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/4/2016 11:11:44 AM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/4/2016 11:11:44 AM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/4/2016 11:11:44 AM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/4/2016 11:11:44 AM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Chrysene	ND	6.6	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/4/2016 11:11:44 AM	24000

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-22
Project: Quarterly GW Sampling
Collection Date: 2/25/2016 10:55:00 AM
Lab ID: 1602B49-012
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/4/2016 11:11:44 AM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/4/2016 11:11:44 AM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/4/2016 11:11:44 AM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/4/2016 11:11:44 AM	24000
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/4/2016 11:11:44 AM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/4/2016 11:11:44 AM	24000
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/4/2016 11:11:44 AM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/4/2016 11:11:44 AM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/4/2016 11:11:44 AM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/4/2016 11:11:44 AM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Fluorene	ND	7.2	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Isophorone	ND	8.1	10		µg/L	1	3/4/2016 11:11:44 AM	24000
1-Methylnaphthalene	42	6.8	10		µg/L	1	3/4/2016 11:11:44 AM	24000
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/4/2016 11:11:44 AM	24000
2-Methylphenol	ND	8.2	10		µg/L	1	3/4/2016 11:11:44 AM	24000
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/4/2016 11:11:44 AM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/4/2016 11:11:44 AM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/4/2016 11:11:44 AM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Naphthalene	29	5.9	10		µg/L	1	3/4/2016 11:11:44 AM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/4/2016 11:11:44 AM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/4/2016 11:11:44 AM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/4/2016 11:11:44 AM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/4/2016 11:11:44 AM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/4/2016 11:11:44 AM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Phenol	ND	5.1	10		µg/L	1	3/4/2016 11:11:44 AM	24000

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-22
Project: Quarterly GW Sampling
Collection Date: 2/25/2016 10:55:00 AM
Lab ID: 1602B49-012
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Pyridine	ND	6.7	10		µg/L	1	3/4/2016 11:11:44 AM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/4/2016 11:11:44 AM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/4/2016 11:11:44 AM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/4/2016 11:11:44 AM	24000
Surr: 2-Fluorophenol	19.0	0	4.63-113		%Rec	1	3/4/2016 11:11:44 AM	24000
Surr: Phenol-d5	18.0	0	4.13-124		%Rec	1	3/4/2016 11:11:44 AM	24000
Surr: 2,4,6-Tribromophenol	62.8	0	5.14-132		%Rec	1	3/4/2016 11:11:44 AM	24000
Surr: Nitrobenzene-d5	44.4	0	9.13-140		%Rec	1	3/4/2016 11:11:44 AM	24000
Surr: 2-Fluorobiphenyl	48.3	0	10.8-132		%Rec	1	3/4/2016 11:11:44 AM	24000
Surr: 4-Terphenyl-d14	56.8	0	12.9-107		%Rec	1	3/4/2016 11:11:44 AM	24000
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	4000	19	200	P	µg/L	200	3/3/2016 7:08:21 PM	R32574
Toluene	32	1.8	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Ethylbenzene	570	2.2	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Methyl tert-butyl ether (MTBE)	7200	42	200	P	µg/L	200	3/3/2016 7:08:21 PM	R32574
1,2,4-Trimethylbenzene	43	2.1	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
1,3,5-Trimethylbenzene	ND	2.3	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
1,2-Dichloroethane (EDC)	3.0	1.1	20	JP	µg/L	20	3/3/2016 7:37:15 PM	R32574
1,2-Dibromoethane (EDB)	ND	2.2	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Naphthalene	73	1.7	40	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
1-Methylnaphthalene	110	4.1	80	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
2-Methylnaphthalene	17	3.2	80	JP	µg/L	20	3/3/2016 7:37:15 PM	R32574
Acetone	ND	18	200	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Bromobenzene	ND	1.6	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Bromodichloromethane	ND	2.0	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Bromoform	ND	2.0	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Bromomethane	ND	16	60	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
2-Butanone	ND	6.4	200	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Carbon disulfide	ND	12	200	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Carbon Tetrachloride	ND	2.2	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Chlorobenzene	ND	2.1	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Chloroethane	ND	2.9	40	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Chloroform	ND	1.8	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Chloromethane	ND	4.3	60	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
2-Chlorotoluene	ND	8.0	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
4-Chlorotoluene	ND	2.6	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
cis-1,2-DCE	7.7	2.5	20	JP	µg/L	20	3/3/2016 7:37:15 PM	R32574
cis-1,3-Dichloropropene	ND	2.0	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-22
Project: Quarterly GW Sampling
Collection Date: 2/25/2016 10:55:00 AM
Lab ID: 1602B49-012
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	3.1	40	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Dibromochloromethane	ND	1.7	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Dibromomethane	ND	2.4	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
1,2-Dichlorobenzene	ND	8.0	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
1,3-Dichlorobenzene	ND	2.9	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
1,4-Dichlorobenzene	ND	2.9	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Dichlorodifluoromethane	ND	6.5	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
1,1-Dichloroethane	ND	2.2	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
1,1-Dichloroethene	4.0	1.5	20	JP	µg/L	20	3/3/2016 7:37:15 PM	R32574
1,2-Dichloropropane	ND	0.94	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
1,3-Dichloropropane	ND	3.1	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
2,2-Dichloropropane	ND	2.4	40	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
1,1-Dichloropropene	ND	2.7	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Hexachlorobutadiene	ND	4.0	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
2-Hexanone	ND	7.2	200	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Isopropylbenzene	20	2.0	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
4-Isopropyltoluene	3.4	2.8	20	JP	µg/L	20	3/3/2016 7:37:15 PM	R32574
4-Methyl-2-pentanone	ND	3.0	200	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Methylene Chloride	ND	1.3	60	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
n-Butylbenzene	13	3.2	60	JP	µg/L	20	3/3/2016 7:37:15 PM	R32574
n-Propylbenzene	50	2.6	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
sec-Butylbenzene	7.1	2.2	20	JP	µg/L	20	3/3/2016 7:37:15 PM	R32574
Styrene	ND	1.9	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
tert-Butylbenzene	ND	1.9	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
1,1,1,2-Tetrachloroethane	ND	2.2	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
1,1,2,2-Tetrachloroethane	ND	2.1	40	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Tetrachloroethene (PCE)	ND	3.0	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
trans-1,2-DCE	ND	8.0	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
trans-1,3-Dichloropropene	ND	1.7	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
1,2,3-Trichlorobenzene	ND	2.3	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
1,2,4-Trichlorobenzene	ND	2.7	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
1,1,1-Trichloroethane	ND	1.3	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
1,1,2-Trichloroethane	ND	1.5	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Trichloroethene (TCE)	ND	3.5	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Trichlorofluoromethane	ND	1.8	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
1,2,3-Trichloropropane	ND	2.2	40	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Vinyl chloride	ND	1.3	20	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Xylenes, Total	70	6.5	30	P	µg/L	20	3/3/2016 7:37:15 PM	R32574
Surr: 1,2-Dichloroethane-d4	91.3	0	70-130	P	%Rec	20	3/3/2016 7:37:15 PM	R32574

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-22
Project: Quarterly GW Sampling
Collection Date: 2/25/2016 10:55:00 AM
Lab ID: 1602B49-012
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	95.1	0	70-130	P	%Rec	20	3/3/2016 7:37:15 PM	R32574
Surr: Dibromofluoromethane	97.3	0	70-130	P	%Rec	20	3/3/2016 7:37:15 PM	R32574
Surr: Toluene-d8	109	0	70-130	P	%Rec	20	3/3/2016 7:37:15 PM	R32574

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-33
Project: Quarterly GW Sampling
Collection Date: 2/25/2016 11:55:00 AM
Lab ID: 1602B49-013
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/1/2016 5:29:49 PM	24002
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/1/2016 5:29:49 PM	24002
Surr: DNOP	93.4	0	70-141		%Rec	1	3/1/2016 5:29:49 PM	24002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.35	0.025	0.050		mg/L	1	3/1/2016 11:06:24 PM	A32486
Surr: BFB	83.6	0	49.5-130		%Rec	1	3/1/2016 11:06:24 PM	A32486
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.25	0.023	0.10		mg/L	1	3/3/2016 4:49:41 AM	A32541
Chloride	100	0.55	10		mg/L	20	3/3/2016 5:02:05 AM	A32541
Bromide	0.81	0.032	0.10		mg/L	1	3/3/2016 4:49:41 AM	A32541
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	3/3/2016 4:49:41 AM	A32541
Sulfate	310	1.3	10		mg/L	20	3/3/2016 5:02:05 AM	A32541
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	3/1/2016 1:34:06 PM	R32498
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.047	0.0013	0.0020		mg/L	1	3/11/2016 4:57:39 PM	C32754
Cadmium	ND	0.00075	0.0020		mg/L	1	3/11/2016 4:57:39 PM	C32754
Calcium	92	0.26	1.0		mg/L	1	3/16/2016 1:41:36 PM	D32831
Chromium	ND	0.0018	0.0060		mg/L	1	3/11/2016 4:57:39 PM	C32754
Copper	ND	0.0040	0.0060		mg/L	1	3/15/2016 1:13:12 PM	A32792
Iron	0.045	0.0091	0.020		mg/L	1	3/16/2016 1:41:36 PM	D32831
Magnesium	20	0.013	1.0		mg/L	1	3/11/2016 4:57:39 PM	C32754
Manganese	0.16	0.00032	0.0020	*	mg/L	1	3/11/2016 4:57:39 PM	C32754
Potassium	1.2	0.18	1.0		mg/L	1	3/11/2016 4:57:39 PM	C32754
Silver	ND	0.0028	0.0050		mg/L	1	3/11/2016 4:57:39 PM	C32754
Sodium	310	0.48	5.0		mg/L	5	3/16/2016 1:43:32 PM	D32831
Zinc	0.017	0.0028	0.010		mg/L	1	3/16/2016 1:41:36 PM	D32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.24	0.0011	0.0020		mg/L	1	3/11/2016 3:37:06 PM	24015
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 3:37:06 PM	24015
Chromium	0.0055	0.0022	0.0060	J	mg/L	1	3/11/2016 3:37:06 PM	24015
Copper	ND	0.0051	0.0060		mg/L	1	3/11/2016 3:37:06 PM	24015
Iron	4.9	0.036	0.10	*	mg/L	5	3/11/2016 3:38:49 PM	24015
Manganese	0.55	0.0015	0.0020	*	mg/L	1	3/11/2016 3:37:06 PM	24015
Silver	ND	0.0021	0.0050		mg/L	1	3/23/2016 11:42:24 AM	24381
Zinc	0.016	0.0039	0.010		mg/L	1	3/11/2016 3:37:06 PM	24015
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.00079	0.000065	0.0010	J	mg/L	1	3/15/2016 5:52:04 PM	C32805

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Hall Environmental Analysis Laboratory, Inc.

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Project: Quarterly GW Sampling
Collection Date: 2/25/2016 11:55:00 AM
Lab ID: 1602B49-013
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00011	0.000026	0.00050	J	mg/L	1	3/15/2016 5:52:04 PM	C32805
Selenium	0.0018	0.00019	0.0010		mg/L	1	3/15/2016 5:52:04 PM	C32805
Uranium	0.040	0.000024	0.0025	*	mg/L	5	3/22/2016 7:55:11 PM	C32978
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0012	0.00029	0.0010		mg/L	1	3/11/2016 1:48:38 PM	24015
Lead	0.0067	0.000047	0.00050		mg/L	1	3/11/2016 1:48:38 PM	24015
Selenium	0.0016	0.00062	0.0050	J	mg/L	5	3/11/2016 3:50:10 PM	24015
Uranium	0.040	0.000025	0.0025	*	mg/L	5	3/11/2016 3:50:10 PM	24015
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/2/2016 1:28:47 PM	24021
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Aniline	ND	9.8	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Anthracene	ND	6.6	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/4/2016 11:41:37 AM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/4/2016 11:41:37 AM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Carbazole	ND	7.2	10		µg/L	1	3/4/2016 11:41:37 AM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/4/2016 11:41:37 AM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/4/2016 11:41:37 AM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/4/2016 11:41:37 AM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/4/2016 11:41:37 AM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Chrysene	ND	6.6	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/4/2016 11:41:37 AM	24000

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/4/2016 11:41:37 AM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/4/2016 11:41:37 AM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/4/2016 11:41:37 AM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/4/2016 11:41:37 AM	24000
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/4/2016 11:41:37 AM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/4/2016 11:41:37 AM	24000
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/4/2016 11:41:37 AM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/4/2016 11:41:37 AM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/4/2016 11:41:37 AM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/4/2016 11:41:37 AM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Fluorene	ND	7.2	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Isophorone	ND	8.1	10		µg/L	1	3/4/2016 11:41:37 AM	24000
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/4/2016 11:41:37 AM	24000
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/4/2016 11:41:37 AM	24000
2-Methylphenol	ND	8.2	10		µg/L	1	3/4/2016 11:41:37 AM	24000
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/4/2016 11:41:37 AM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/4/2016 11:41:37 AM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/4/2016 11:41:37 AM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Naphthalene	ND	5.9	10		µg/L	1	3/4/2016 11:41:37 AM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/4/2016 11:41:37 AM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/4/2016 11:41:37 AM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/4/2016 11:41:37 AM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/4/2016 11:41:37 AM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/4/2016 11:41:37 AM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Phenol	ND	5.1	10		µg/L	1	3/4/2016 11:41:37 AM	24000

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Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Pyridine	ND	6.7	10		µg/L	1	3/4/2016 11:41:37 AM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/4/2016 11:41:37 AM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/4/2016 11:41:37 AM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/4/2016 11:41:37 AM	24000
Surr: 2-Fluorophenol	42.2	0	4.63-113		%Rec	1	3/4/2016 11:41:37 AM	24000
Surr: Phenol-d5	34.1	0	4.13-124		%Rec	1	3/4/2016 11:41:37 AM	24000
Surr: 2,4,6-Tribromophenol	72.6	0	5.14-132		%Rec	1	3/4/2016 11:41:37 AM	24000
Surr: Nitrobenzene-d5	79.8	0	9.13-140		%Rec	1	3/4/2016 11:41:37 AM	24000
Surr: 2-Fluorobiphenyl	78.5	0	10.8-132		%Rec	1	3/4/2016 11:41:37 AM	24000
Surr: 4-Terphenyl-d14	65.4	0	12.9-107		%Rec	1	3/4/2016 11:41:37 AM	24000
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	0.16	0.096	1.0	J	µg/L	1	3/3/2016 8:06:08 PM	R32574
Toluene	ND	0.089	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
Methyl tert-butyl ether (MTBE)	310	2.1	10		µg/L	10	3/4/2016 4:36:12 PM	R32609
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
1,2-Dichloroethane (EDC)	0.20	0.053	1.0	J	µg/L	1	3/3/2016 8:06:08 PM	R32574
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
Naphthalene	ND	0.083	2.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
Acetone	ND	0.88	10		µg/L	1	3/3/2016 8:06:08 PM	R32574
Bromobenzene	ND	0.080	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
Bromoform	ND	0.10	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
Bromomethane	ND	0.78	3.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
2-Butanone	ND	0.32	10		µg/L	1	3/3/2016 8:06:08 PM	R32574
Carbon disulfide	ND	0.60	10		µg/L	1	3/3/2016 8:06:08 PM	R32574
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
Chloroethane	ND	0.15	2.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
Chloroform	ND	0.089	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
Chloromethane	ND	0.21	3.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574

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EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
Dibromomethane	ND	0.12	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
1,4-Dichlorobenzene	0.37	0.14	1.0	J	µg/L	1	3/3/2016 8:06:08 PM	R32574
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
2-Hexanone	ND	0.36	10		µg/L	1	3/3/2016 8:06:08 PM	R32574
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/3/2016 8:06:08 PM	R32574
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
sec-Butylbenzene	1.6	0.11	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
Styrene	ND	0.095	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/3/2016 8:06:08 PM	R32574
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/3/2016 8:06:08 PM	R32574
Surr: 1,2-Dichloroethane-d4	96.7	0	70-130		%Rec	1	3/3/2016 8:06:08 PM	R32574

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-33
Project: Quarterly GW Sampling
Collection Date: 2/25/2016 11:55:00 AM
Lab ID: 1602B49-013
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	3/3/2016 8:06:08 PM	R32574
Surr: Dibromofluoromethane	107	0	70-130		%Rec	1	3/3/2016 8:06:08 PM	R32574
Surr: Toluene-d8	99.7	0	70-130		%Rec	1	3/3/2016 8:06:08 PM	R32574

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1602B49-014
Matrix: TRIP BLANK
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	3/1/2016 11:30:45 PM	A32486
Surr: BFB	85.1	0	49.5-130		%Rec	1	3/1/2016 11:30:45 PM	A32486
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	ND	0.096	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Toluene	ND	0.089	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Naphthalene	ND	0.083	2.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Acetone	ND	0.88	10		µg/L	1	3/4/2016 2:48:45 AM	B32574
Bromobenzene	ND	0.080	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Bromoform	ND	0.10	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Bromomethane	ND	0.78	3.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
2-Butanone	ND	0.32	10		µg/L	1	3/4/2016 2:48:45 AM	B32574
Carbon disulfide	ND	0.60	10		µg/L	1	3/4/2016 2:48:45 AM	B32574
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Chloroethane	ND	0.15	2.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Chloroform	ND	0.089	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Chloromethane	ND	0.21	3.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Dibromomethane	ND	0.12	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1602B49-014
Matrix: TRIP BLANK
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
2-Hexanone	ND	0.36	10		µg/L	1	3/4/2016 2:48:45 AM	B32574
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/4/2016 2:48:45 AM	B32574
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Styrene	ND	0.095	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/4/2016 2:48:45 AM	B32574
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/4/2016 2:48:45 AM	B32574
Surr: 1,2-Dichloroethane-d4	87.7	0	70-130		%Rec	1	3/4/2016 2:48:45 AM	B32574
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	1	3/4/2016 2:48:45 AM	B32574
Surr: Dibromofluoromethane	97.9	0	70-130		%Rec	1	3/4/2016 2:48:45 AM	B32574
Surr: Toluene-d8	96.9	0	70-130		%Rec	1	3/4/2016 2:48:45 AM	B32574

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-17
Project: Quarterly GW Sampling
Collection Date: 2/26/2016 9:30:00 AM
Lab ID: 1602B49-015
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/1/2016 5:51:23 PM	24002
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/1/2016 5:51:23 PM	24002
Surr: DNOP	92.7	0	70-141		%Rec	1	3/1/2016 5:51:23 PM	24002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	1.6	0.13	0.25		mg/L	5	3/1/2016 11:55:19 PM	A32486
Surr: BFB	85.8	0	49.5-130		%Rec	5	3/1/2016 11:55:19 PM	A32486
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.54	0.023	0.10		mg/L	1	3/3/2016 5:14:30 AM	A32541
Chloride	76	0.55	10		mg/L	20	3/3/2016 5:26:55 AM	A32541
Bromide	0.66	0.032	0.10		mg/L	1	3/3/2016 5:14:30 AM	A32541
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	3/3/2016 5:14:30 AM	A32541
Sulfate	180	1.3	10		mg/L	20	3/3/2016 5:26:55 AM	A32541
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	3/1/2016 2:23:44 PM	R32498
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.095	0.0013	0.0020		mg/L	1	3/11/2016 4:59:35 PM	C32754
Cadmium	ND	0.00075	0.0020		mg/L	1	3/11/2016 4:59:35 PM	C32754
Calcium	96	0.26	1.0		mg/L	1	3/16/2016 1:52:53 PM	D32831
Chromium	ND	0.0018	0.0060		mg/L	1	3/11/2016 4:59:35 PM	C32754
Copper	ND	0.0040	0.0060		mg/L	1	3/15/2016 1:17:07 PM	A32792
Iron	0.093	0.0091	0.020		mg/L	1	3/16/2016 1:52:53 PM	D32831
Magnesium	18	0.013	1.0		mg/L	1	3/11/2016 4:59:35 PM	C32754
Manganese	2.8	0.0016	0.010	*	mg/L	5	3/15/2016 1:27:36 PM	A32792
Potassium	1.5	0.18	1.0		mg/L	1	3/11/2016 4:59:35 PM	C32754
Silver	ND	0.0028	0.0050		mg/L	1	3/11/2016 4:59:35 PM	C32754
Sodium	270	0.48	5.0		mg/L	5	3/16/2016 1:54:48 PM	D32831
Zinc	0.020	0.0028	0.010		mg/L	1	3/16/2016 1:52:53 PM	D32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.12	0.0011	0.0020		mg/L	1	3/11/2016 3:40:47 PM	24015
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 3:40:47 PM	24015
Chromium	ND	0.0022	0.0060		mg/L	1	3/11/2016 3:40:47 PM	24015
Copper	ND	0.0051	0.0060		mg/L	1	3/11/2016 3:40:47 PM	24015
Iron	0.98	0.0072	0.020	*	mg/L	1	3/11/2016 3:40:47 PM	24015
Manganese	2.6	0.0076	0.010	*	mg/L	5	3/11/2016 3:42:38 PM	24015
Silver	ND	0.0021	0.0050		mg/L	1	3/23/2016 11:46:03 AM	24381
Zinc	0.0056	0.0039	0.010	J	mg/L	1	3/11/2016 3:40:47 PM	24015
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0030	0.000065	0.0010		mg/L	1	3/15/2016 5:55:08 PM	C32805

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-17
Project: Quarterly GW Sampling
Collection Date: 2/26/2016 9:30:00 AM
Lab ID: 1602B49-015
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00012	0.000026	0.00050	J	mg/L	1	3/15/2016 5:55:08 PM	C32805
Selenium	0.0015	0.00019	0.0010		mg/L	1	3/15/2016 5:55:08 PM	C32805
Uranium	0.018	0.0000048	0.00050		mg/L	1	3/15/2016 5:55:08 PM	C32805
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0046	0.00029	0.0010		mg/L	1	3/11/2016 1:51:38 PM	24015
Lead	0.00095	0.000047	0.00050		mg/L	1	3/11/2016 1:51:38 PM	24015
Selenium	0.0012	0.00062	0.0050	J	mg/L	5	3/11/2016 3:53:10 PM	24015
Uranium	0.018	0.0000049	0.00050		mg/L	1	3/11/2016 1:51:38 PM	24015
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/2/2016 1:30:47 PM	24021
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Aniline	ND	9.8	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/4/2016 12:11:34 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/4/2016 12:11:34 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Carbazole	ND	7.2	10		µg/L	1	3/4/2016 12:11:34 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/4/2016 12:11:34 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/4/2016 12:11:34 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/4/2016 12:11:34 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/4/2016 12:11:34 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/4/2016 12:11:34 PM	24000

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-17
Project: Quarterly GW Sampling
Collection Date: 2/26/2016 9:30:00 AM
Lab ID: 1602B49-015
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/4/2016 12:11:34 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/4/2016 12:11:34 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/4/2016 12:11:34 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/4/2016 12:11:34 PM	24000
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/4/2016 12:11:34 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/4/2016 12:11:34 PM	24000
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/4/2016 12:11:34 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/4/2016 12:11:34 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/4/2016 12:11:34 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/4/2016 12:11:34 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Fluorene	ND	7.2	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/4/2016 12:11:34 PM	24000
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/4/2016 12:11:34 PM	24000
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/4/2016 12:11:34 PM	24000
2-Methylphenol	ND	8.2	10		µg/L	1	3/4/2016 12:11:34 PM	24000
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/4/2016 12:11:34 PM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/4/2016 12:11:34 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/4/2016 12:11:34 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Naphthalene	ND	5.9	10		µg/L	1	3/4/2016 12:11:34 PM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/4/2016 12:11:34 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/4/2016 12:11:34 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/4/2016 12:11:34 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/4/2016 12:11:34 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/4/2016 12:11:34 PM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Phenol	ND	5.1	10		µg/L	1	3/4/2016 12:11:34 PM	24000

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-17
Project: Quarterly GW Sampling
Collection Date: 2/26/2016 9:30:00 AM
Lab ID: 1602B49-015
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/4/2016 12:11:34 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/4/2016 12:11:34 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/4/2016 12:11:34 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/4/2016 12:11:34 PM	24000
Surr: 2-Fluorophenol	41.5	0	4.63-113		%Rec	1	3/4/2016 12:11:34 PM	24000
Surr: Phenol-d5	32.0	0	4.13-124		%Rec	1	3/4/2016 12:11:34 PM	24000
Surr: 2,4,6-Tribromophenol	85.9	0	5.14-132		%Rec	1	3/4/2016 12:11:34 PM	24000
Surr: Nitrobenzene-d5	66.6	0	9.13-140		%Rec	1	3/4/2016 12:11:34 PM	24000
Surr: 2-Fluorobiphenyl	73.9	0	10.8-132		%Rec	1	3/4/2016 12:11:34 PM	24000
Surr: 4-Terphenyl-d14	75.2	0	12.9-107		%Rec	1	3/4/2016 12:11:34 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	260	0.48	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
Toluene	ND	0.45	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
Ethylbenzene	18	0.56	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
Methyl tert-butyl ether (MTBE)	640	1.1	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
1,2,4-Trimethylbenzene	2.4	0.52	5.0	J	µg/L	5	3/3/2016 8:34:50 PM	R32574
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
Naphthalene	2.5	0.42	10	J	µg/L	5	3/3/2016 8:34:50 PM	R32574
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/3/2016 8:34:50 PM	R32574
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/3/2016 8:34:50 PM	R32574
Acetone	ND	4.4	50		µg/L	5	3/3/2016 8:34:50 PM	R32574
Bromobenzene	ND	0.40	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
Bromoform	ND	0.51	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
Bromomethane	ND	3.9	15		µg/L	5	3/3/2016 8:34:50 PM	R32574
2-Butanone	ND	1.6	50		µg/L	5	3/3/2016 8:34:50 PM	R32574
Carbon disulfide	ND	3.0	50		µg/L	5	3/3/2016 8:34:50 PM	R32574
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
Chloroethane	ND	0.73	10		µg/L	5	3/3/2016 8:34:50 PM	R32574
Chloroform	ND	0.44	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
Chloromethane	ND	1.1	15		µg/L	5	3/3/2016 8:34:50 PM	R32574
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574

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Lab ID: 1602B49-015
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/3/2016 8:34:50 PM	R32574
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
Dibromomethane	ND	0.60	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/3/2016 8:34:50 PM	R32574
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
2-Hexanone	ND	1.8	50		µg/L	5	3/3/2016 8:34:50 PM	R32574
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
4-Isopropyltoluene	1.0	0.70	5.0	J	µg/L	5	3/3/2016 8:34:50 PM	R32574
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/3/2016 8:34:50 PM	R32574
Methylene Chloride	ND	0.31	15		µg/L	5	3/3/2016 8:34:50 PM	R32574
n-Butylbenzene	ND	0.80	15		µg/L	5	3/3/2016 8:34:50 PM	R32574
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
Styrene	ND	0.48	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/3/2016 8:34:50 PM	R32574
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/3/2016 8:34:50 PM	R32574
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/3/2016 8:34:50 PM	R32574
Xylenes, Total	23	1.6	7.5		µg/L	5	3/3/2016 8:34:50 PM	R32574
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	5	3/3/2016 8:34:50 PM	R32574

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Project: Quarterly GW Sampling
Collection Date: 2/26/2016 9:30:00 AM
Lab ID: 1602B49-015
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	98.2	0	70-130		%Rec	5	3/3/2016 8:34:50 PM	R32574
Surr: Dibromofluoromethane	111	0	70-130		%Rec	5	3/3/2016 8:34:50 PM	R32574
Surr: Toluene-d8	108	0	70-130		%Rec	5	3/3/2016 8:34:50 PM	R32574

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-35
Project: Quarterly GW Sampling
Collection Date: 2/26/2016 12:00:00 PM
Lab ID: 1602B49-016
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	0.94	0.69	1.0	J	mg/L	1	3/1/2016 6:12:45 PM	24002
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/1/2016 6:12:45 PM	24002
Surr: DNOP	92.2	0	70-141		%Rec	1	3/1/2016 6:12:45 PM	24002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.87	0.13	0.25		mg/L	5	3/2/2016 12:19:45 AM	A32486
Surr: BFB	94.8	0	49.5-130		%Rec	5	3/2/2016 12:19:45 AM	A32486
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.45	0.023	0.10		mg/L	1	3/3/2016 5:39:20 AM	A32541
Chloride	65	0.55	10		mg/L	20	3/3/2016 5:51:44 AM	A32541
Bromide	0.38	0.032	0.10		mg/L	1	3/3/2016 5:39:20 AM	A32541
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	3/3/2016 5:39:20 AM	A32541
Sulfate	99	1.3	10		mg/L	20	3/3/2016 5:51:44 AM	A32541
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	3/1/2016 2:36:08 PM	R32498
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.43	0.0013	0.0020		mg/L	1	3/11/2016 5:01:31 PM	C32754
Cadmium	ND	0.00075	0.0020		mg/L	1	3/11/2016 5:01:31 PM	C32754
Calcium	130	1.3	5.0		mg/L	5	3/16/2016 1:58:23 PM	D32831
Chromium	ND	0.0018	0.0060		mg/L	1	3/11/2016 5:01:31 PM	C32754
Copper	ND	0.0040	0.0060		mg/L	1	3/15/2016 1:29:34 PM	A32792
Iron	2.8	0.045	0.10	*	mg/L	5	3/15/2016 1:31:14 PM	A32792
Magnesium	34	0.013	1.0		mg/L	1	3/11/2016 5:01:31 PM	C32754
Manganese	3.0	0.0016	0.010	*	mg/L	5	3/15/2016 1:31:14 PM	A32792
Potassium	0.63	0.18	1.0	J	mg/L	1	3/11/2016 5:01:31 PM	C32754
Silver	ND	0.0028	0.0050		mg/L	1	3/11/2016 5:01:31 PM	C32754
Sodium	150	0.48	5.0		mg/L	5	3/16/2016 1:58:23 PM	D32831
Zinc	0.0099	0.0028	0.010	J	mg/L	1	3/16/2016 1:56:42 PM	D32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	3.3	0.011	0.020	*	mg/L	10	3/11/2016 3:52:01 PM	24015
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 3:44:35 PM	24015
Chromium	0.0087	0.0022	0.0060		mg/L	1	3/11/2016 3:44:35 PM	24015
Copper	ND	0.0051	0.0060		mg/L	1	3/11/2016 3:44:35 PM	24015
Iron	9.1	0.14	0.40	*	mg/L	20	3/14/2016 2:03:08 PM	24015
Manganese	4.1	0.015	0.020	*	mg/L	10	3/11/2016 3:52:01 PM	24015
Silver	ND	0.0021	0.0050		mg/L	1	3/23/2016 11:56:17 AM	24381
Zinc	0.026	0.0039	0.010		mg/L	1	3/11/2016 3:44:35 PM	24015
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.00046	0.000065	0.0010	J	mg/L	1	3/15/2016 5:58:11 PM	C32805

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Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00037	0.000026	0.00050	J	mg/L	1	3/15/2016 5:58:11 PM	C32805
Selenium	0.00089	0.00019	0.0010	J	mg/L	1	3/15/2016 5:58:11 PM	C32805
Uranium	0.0016	0.0000048	0.00050		mg/L	1	3/15/2016 5:58:11 PM	C32805
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0018	0.00029	0.0010		mg/L	1	3/11/2016 1:54:39 PM	24015
Lead	0.013	0.000047	0.00050		mg/L	1	3/11/2016 1:54:39 PM	24015
Selenium	0.00075	0.00012	0.0010	J	mg/L	1	3/11/2016 1:54:39 PM	24015
Uranium	0.0029	0.0000049	0.00050		mg/L	1	3/11/2016 1:54:39 PM	24015
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/2/2016 1:32:47 PM	24021
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Aniline	ND	9.8	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/4/2016 12:41:35 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/4/2016 12:41:35 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Carbazole	ND	7.2	10		µg/L	1	3/4/2016 12:41:35 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/4/2016 12:41:35 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/4/2016 12:41:35 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/4/2016 12:41:35 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/4/2016 12:41:35 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/4/2016 12:41:35 PM	24000

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-35
Project: Quarterly GW Sampling
Collection Date: 2/26/2016 12:00:00 PM
Lab ID: 1602B49-016
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/4/2016 12:41:35 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/4/2016 12:41:35 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/4/2016 12:41:35 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/4/2016 12:41:35 PM	24000
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/4/2016 12:41:35 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/4/2016 12:41:35 PM	24000
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/4/2016 12:41:35 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/4/2016 12:41:35 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/4/2016 12:41:35 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/4/2016 12:41:35 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Fluorene	ND	7.2	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/4/2016 12:41:35 PM	24000
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/4/2016 12:41:35 PM	24000
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/4/2016 12:41:35 PM	24000
2-Methylphenol	ND	8.2	10		µg/L	1	3/4/2016 12:41:35 PM	24000
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/4/2016 12:41:35 PM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/4/2016 12:41:35 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/4/2016 12:41:35 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Naphthalene	ND	5.9	10		µg/L	1	3/4/2016 12:41:35 PM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/4/2016 12:41:35 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/4/2016 12:41:35 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/4/2016 12:41:35 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/4/2016 12:41:35 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/4/2016 12:41:35 PM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Phenol	ND	5.1	10		µg/L	1	3/4/2016 12:41:35 PM	24000

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-35
Project: Quarterly GW Sampling
Collection Date: 2/26/2016 12:00:00 PM
Lab ID: 1602B49-016
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/4/2016 12:41:35 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/4/2016 12:41:35 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/4/2016 12:41:35 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/4/2016 12:41:35 PM	24000
Surr: 2-Fluorophenol	26.0	0	4.63-113		%Rec	1	3/4/2016 12:41:35 PM	24000
Surr: Phenol-d5	20.8	0	4.13-124		%Rec	1	3/4/2016 12:41:35 PM	24000
Surr: 2,4,6-Tribromophenol	57.5	0	5.14-132		%Rec	1	3/4/2016 12:41:35 PM	24000
Surr: Nitrobenzene-d5	49.2	0	9.13-140		%Rec	1	3/4/2016 12:41:35 PM	24000
Surr: 2-Fluorobiphenyl	55.1	0	10.8-132		%Rec	1	3/4/2016 12:41:35 PM	24000
Surr: 4-Terphenyl-d14	68.9	0	12.9-107		%Rec	1	3/4/2016 12:41:35 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	46	0.48	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
Toluene	ND	0.45	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
Ethylbenzene	34	0.56	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
Methyl tert-butyl ether (MTBE)	20	1.1	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
1,2,4-Trimethylbenzene	11	0.52	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
Naphthalene	ND	0.42	10		µg/L	5	3/3/2016 9:03:24 PM	R32574
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/3/2016 9:03:24 PM	R32574
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/3/2016 9:03:24 PM	R32574
Acetone	ND	4.4	50		µg/L	5	3/3/2016 9:03:24 PM	R32574
Bromobenzene	ND	0.40	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
Bromoform	ND	0.51	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
Bromomethane	ND	3.9	15		µg/L	5	3/3/2016 9:03:24 PM	R32574
2-Butanone	ND	1.6	50		µg/L	5	3/3/2016 9:03:24 PM	R32574
Carbon disulfide	ND	3.0	50		µg/L	5	3/3/2016 9:03:24 PM	R32574
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
Chloroethane	ND	0.73	10		µg/L	5	3/3/2016 9:03:24 PM	R32574
Chloroform	ND	0.44	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
Chloromethane	ND	1.1	15		µg/L	5	3/3/2016 9:03:24 PM	R32574
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-35
Project: Quarterly GW Sampling
Collection Date: 2/26/2016 12:00:00 PM
Lab ID: 1602B49-016
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/3/2016 9:03:24 PM	R32574
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
Dibromomethane	ND	0.60	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
1,4-Dichlorobenzene	5.2	0.71	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/3/2016 9:03:24 PM	R32574
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
2-Hexanone	ND	1.8	50		µg/L	5	3/3/2016 9:03:24 PM	R32574
Isopropylbenzene	3.4	0.49	5.0	J	µg/L	5	3/3/2016 9:03:24 PM	R32574
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/3/2016 9:03:24 PM	R32574
Methylene Chloride	ND	0.31	15		µg/L	5	3/3/2016 9:03:24 PM	R32574
n-Butylbenzene	1.6	0.80	15	J	µg/L	5	3/3/2016 9:03:24 PM	R32574
n-Propylbenzene	12	0.66	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
sec-Butylbenzene	2.4	0.54	5.0	J	µg/L	5	3/3/2016 9:03:24 PM	R32574
Styrene	ND	0.48	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/3/2016 9:03:24 PM	R32574
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/3/2016 9:03:24 PM	R32574
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/3/2016 9:03:24 PM	R32574
Xylenes, Total	4.5	1.6	7.5	J	µg/L	5	3/3/2016 9:03:24 PM	R32574
Surr: 1,2-Dichloroethane-d4	95.0	0	70-130		%Rec	5	3/3/2016 9:03:24 PM	R32574

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-35
Project: Quarterly GW Sampling
Collection Date: 2/26/2016 12:00:00 PM
Lab ID: 1602B49-016
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	99.9	0	70-130		%Rec	5	3/3/2016 9:03:24 PM	R32574
Surr: Dibromofluoromethane	102	0	70-130		%Rec	5	3/3/2016 9:03:24 PM	R32574
Surr: Toluene-d8	103	0	70-130		%Rec	5	3/3/2016 9:03:24 PM	R32574

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-18
Project: Quarterly GW Sampling
Collection Date: 2/26/2016 1:30:00 PM
Lab ID: 1602B49-017
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	3.0	0.69	1.0		mg/L	1	3/1/2016 6:34:19 PM	24002
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/1/2016 6:34:19 PM	24002
Surr: DNOP	89.6	0	70-141		%Rec	1	3/1/2016 6:34:19 PM	24002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.79	0.13	0.25		mg/L	5	3/3/2016 9:45:45 AM	A32557
Surr: BFB	97.9	0	49.5-130		%Rec	5	3/3/2016 9:45:45 AM	A32557
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	0.64	0.023	0.10		mg/L	1	3/4/2016 4:44:07 PM	R32615
Chloride	160	0.55	10		mg/L	20	3/4/2016 4:56:31 PM	R32615
Bromide	0.80	0.032	0.10		mg/L	1	3/4/2016 4:44:07 PM	R32615
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	3/4/2016 4:44:07 PM	R32615
Sulfate	0.26	0.064	0.50	J	mg/L	1	3/4/2016 4:44:07 PM	R32615
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	3/1/2016 2:48:32 PM	R32498
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	2.1	0.0066	0.010	*	mg/L	5	3/15/2016 1:34:52 PM	A32792
Cadmium	ND	0.00075	0.0020		mg/L	1	3/11/2016 5:03:14 PM	C32754
Calcium	81	0.26	1.0		mg/L	1	3/11/2016 5:03:14 PM	C32754
Chromium	ND	0.0018	0.0060		mg/L	1	3/11/2016 5:03:14 PM	C32754
Copper	ND	0.0040	0.0060		mg/L	1	3/15/2016 1:33:12 PM	A32792
Iron	2.1	0.045	0.10	*	mg/L	5	3/15/2016 1:34:52 PM	A32792
Magnesium	20	0.013	1.0		mg/L	1	3/11/2016 5:03:14 PM	C32754
Manganese	1.9	0.0016	0.010	*	mg/L	5	3/15/2016 1:34:52 PM	A32792
Potassium	0.83	0.18	1.0	J	mg/L	1	3/11/2016 5:03:14 PM	C32754
Silver	ND	0.0028	0.0050		mg/L	1	3/11/2016 5:03:14 PM	C32754
Sodium	270	0.48	5.0		mg/L	5	3/16/2016 2:02:00 PM	D32831
Zinc	0.011	0.0028	0.010		mg/L	1	3/16/2016 2:00:21 PM	D32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	2.3	0.011	0.020	*	mg/L	10	3/11/2016 3:55:51 PM	24015
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 3:54:06 PM	24015
Chromium	0.0043	0.0022	0.0060	J	mg/L	1	3/11/2016 3:54:06 PM	24015
Copper	0.0057	0.0051	0.0060	J	mg/L	1	3/14/2016 2:05:05 PM	24015
Iron	6.4	0.072	0.20	*	mg/L	10	3/11/2016 3:55:51 PM	24015
Manganese	2.1	0.015	0.020	*	mg/L	10	3/11/2016 3:55:51 PM	24015
Silver	ND	0.0021	0.0050		mg/L	1	3/23/2016 12:00:07 PM	24381
Zinc	0.020	0.0039	0.010		mg/L	1	3/14/2016 2:05:05 PM	24015
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0020	0.000065	0.0010		mg/L	1	3/15/2016 6:07:25 PM	C32805

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-18
Project: Quarterly GW Sampling
Collection Date: 2/26/2016 1:30:00 PM
Lab ID: 1602B49-017
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00039	0.000026	0.00050	J	mg/L	1	3/15/2016 6:07:25 PM	C32805
Selenium	0.0018	0.00019	0.0010		mg/L	1	3/15/2016 6:07:25 PM	C32805
Uranium	0.0012	0.0000048	0.00050		mg/L	1	3/15/2016 6:07:25 PM	C32805
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0022	0.00029	0.0010		mg/L	1	3/11/2016 1:57:39 PM	24015
Lead	0.0064	0.000047	0.00050		mg/L	1	3/11/2016 1:57:39 PM	24015
Selenium	0.0019	0.00062	0.0050	J	mg/L	5	3/11/2016 4:02:15 PM	24015
Uranium	0.0016	0.0000049	0.00050		mg/L	1	3/11/2016 1:57:39 PM	24015
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/2/2016 1:34:48 PM	24021
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Aniline	ND	9.8	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/4/2016 1:11:43 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/4/2016 1:11:43 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Carbazole	ND	7.2	10		µg/L	1	3/4/2016 1:11:43 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/4/2016 1:11:43 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/4/2016 1:11:43 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/4/2016 1:11:43 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/4/2016 1:11:43 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/4/2016 1:11:43 PM	24000

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Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/4/2016 1:11:43 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/4/2016 1:11:43 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/4/2016 1:11:43 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/4/2016 1:11:43 PM	24000
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/4/2016 1:11:43 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/4/2016 1:11:43 PM	24000
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/4/2016 1:11:43 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/4/2016 1:11:43 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/4/2016 1:11:43 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/4/2016 1:11:43 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Fluorene	ND	7.2	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/4/2016 1:11:43 PM	24000
1-Methylnaphthalene	60	6.8	10		µg/L	1	3/4/2016 1:11:43 PM	24000
2-Methylnaphthalene	17	7.0	10		µg/L	1	3/4/2016 1:11:43 PM	24000
2-Methylphenol	ND	8.2	10		µg/L	1	3/4/2016 1:11:43 PM	24000
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/4/2016 1:11:43 PM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/4/2016 1:11:43 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/4/2016 1:11:43 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Naphthalene	16	5.9	10		µg/L	1	3/4/2016 1:11:43 PM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/4/2016 1:11:43 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/4/2016 1:11:43 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/4/2016 1:11:43 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/4/2016 1:11:43 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/4/2016 1:11:43 PM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Phenol	ND	5.1	10		µg/L	1	3/4/2016 1:11:43 PM	24000

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Lab ID: 1602B49-017
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/4/2016 1:11:43 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/4/2016 1:11:43 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/4/2016 1:11:43 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/4/2016 1:11:43 PM	24000
Surr: 2-Fluorophenol	40.4	0	4.63-113		%Rec	1	3/4/2016 1:11:43 PM	24000
Surr: Phenol-d5	28.5	0	4.13-124		%Rec	1	3/4/2016 1:11:43 PM	24000
Surr: 2,4,6-Tribromophenol	74.5	0	5.14-132		%Rec	1	3/4/2016 1:11:43 PM	24000
Surr: Nitrobenzene-d5	64.7	0	9.13-140		%Rec	1	3/4/2016 1:11:43 PM	24000
Surr: 2-Fluorobiphenyl	73.3	0	10.8-132		%Rec	1	3/4/2016 1:11:43 PM	24000
Surr: 4-Terphenyl-d14	63.7	0	12.9-107		%Rec	1	3/4/2016 1:11:43 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	17	0.096	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Toluene	0.59	0.089	1.0	J	µg/L	1	3/3/2016 9:32:09 PM	R32574
Ethylbenzene	34	0.11	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Methyl tert-butyl ether (MTBE)	71	0.21	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
1,2,4-Trimethylbenzene	14	0.10	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
1,3,5-Trimethylbenzene	1.2	0.12	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Naphthalene	35	0.083	2.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
1-Methylnaphthalene	140	2.0	40		µg/L	10	3/4/2016 5:05:04 PM	R32609
2-Methylnaphthalene	40	0.16	4.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Acetone	3.2	0.88	10	J	µg/L	1	3/3/2016 9:32:09 PM	R32574
Bromobenzene	ND	0.080	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Bromoform	ND	0.10	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Bromomethane	ND	0.78	3.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
2-Butanone	ND	0.32	10		µg/L	1	3/3/2016 9:32:09 PM	R32574
Carbon disulfide	ND	0.60	10		µg/L	1	3/3/2016 9:32:09 PM	R32574
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Chloroethane	ND	0.15	2.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Chloroform	ND	0.089	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Chloromethane	ND	0.21	3.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
cis-1,2-DCE	4.2	0.12	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Dibromomethane	ND	0.12	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
1,1-Dichloroethane	0.76	0.11	1.0	J	µg/L	1	3/3/2016 9:32:09 PM	R32574
1,1-Dichloroethene	0.43	0.076	1.0	J	µg/L	1	3/3/2016 9:32:09 PM	R32574
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
2-Hexanone	ND	0.36	10		µg/L	1	3/3/2016 9:32:09 PM	R32574
Isopropylbenzene	6.0	0.098	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
4-Isopropyltoluene	1.7	0.14	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/3/2016 9:32:09 PM	R32574
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
n-Butylbenzene	3.0	0.16	3.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
n-Propylbenzene	7.1	0.13	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
sec-Butylbenzene	3.2	0.11	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Styrene	ND	0.095	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/3/2016 9:32:09 PM	R32574
Xylenes, Total	5.6	0.32	1.5		µg/L	1	3/3/2016 9:32:09 PM	R32574
Surr: 1,2-Dichloroethane-d4	88.4	0	70-130		%Rec	1	3/3/2016 9:32:09 PM	R32574

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-18
Project: Quarterly GW Sampling
Collection Date: 2/26/2016 1:30:00 PM
Lab ID: 1602B49-017
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	81.2	0	70-130		%Rec	1	3/3/2016 9:32:09 PM	R32574
Surr: Dibromofluoromethane	90.9	0	70-130		%Rec	1	3/3/2016 9:32:09 PM	R32574
Surr: Toluene-d8	108	0	70-130		%Rec	1	3/3/2016 9:32:09 PM	R32574

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1602B49-018
Matrix: TRIP BLANK
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	3/3/2016 10:34:55 AM	A32557
Surr: BFB	90.2	0	49.5-130		%Rec	1	3/3/2016 10:34:55 AM	A32557
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	ND	0.096	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Toluene	ND	0.089	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Naphthalene	ND	0.083	2.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Acetone	ND	0.88	10		µg/L	1	3/4/2016 3:17:34 AM	B32574
Bromobenzene	ND	0.080	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Bromoform	ND	0.10	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Bromomethane	ND	0.78	3.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
2-Butanone	ND	0.32	10		µg/L	1	3/4/2016 3:17:34 AM	B32574
Carbon disulfide	ND	0.60	10		µg/L	1	3/4/2016 3:17:34 AM	B32574
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Chloroethane	ND	0.15	2.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Chloroform	ND	0.089	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Chloromethane	ND	0.21	3.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Dibromomethane	ND	0.12	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1602B49-018
Matrix: TRIP BLANK
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
2-Hexanone	ND	0.36	10		µg/L	1	3/4/2016 3:17:34 AM	B32574
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/4/2016 3:17:34 AM	B32574
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Styrene	ND	0.095	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/4/2016 3:17:34 AM	B32574
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/4/2016 3:17:34 AM	B32574
Surr: 1,2-Dichloroethane-d4	89.5	0	70-130		%Rec	1	3/4/2016 3:17:34 AM	B32574
Surr: 4-Bromofluorobenzene	104	0	70-130		%Rec	1	3/4/2016 3:17:34 AM	B32574
Surr: Dibromofluoromethane	100	0	70-130		%Rec	1	3/4/2016 3:17:34 AM	B32574
Surr: Toluene-d8	104	0	70-130		%Rec	1	3/4/2016 3:17:34 AM	B32574

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 1:40:00 PM
Lab ID: 1602B49-019
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/1/2016 6:55:46 PM	24002
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/1/2016 6:55:46 PM	24002
Surr: DNOP	87.8	0	70-141		%Rec	1	3/1/2016 6:55:46 PM	24002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	3/3/2016 10:59:42 AM	A32557
Surr: BFB	93.1	0	49.5-130		%Rec	1	3/3/2016 10:59:42 AM	A32557
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	ND	0.45	2.0		mg/L	20	3/4/2016 5:21:20 PM	R32615
Chloride	15000	27	500		mg/L	1000	3/11/2016 4:46:49 AM	A32739
Bromide	12	0.65	2.0		mg/L	20	3/4/2016 5:21:20 PM	R32615
Phosphorus, Orthophosphate (As P)	ND	4.4	10	H	mg/L	20	3/4/2016 5:21:20 PM	R32615
Sulfate	1200	32	250		mg/L	500	3/9/2016 9:26:32 PM	R32693
Nitrate+Nitrite as N	ND	4.2	10		mg/L	50	3/9/2016 10:28:36 PM	R32693
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.057	0.0013	0.0020		mg/L	1	3/11/2016 5:13:28 PM	C32754
Cadmium	ND	0.00075	0.0020		mg/L	1	3/11/2016 5:13:28 PM	C32754
Calcium	2500	26	100		mg/L	100	3/16/2016 2:08:06 PM	D32831
Chromium	ND	0.0018	0.0060		mg/L	1	3/11/2016 5:13:28 PM	C32754
Copper	ND	0.0040	0.0060		mg/L	1	3/15/2016 1:36:49 PM	A32792
Iron	0.041	0.0091	0.020		mg/L	1	3/15/2016 1:36:49 PM	A32792
Magnesium	410	0.065	5.0		mg/L	5	3/16/2016 2:06:03 PM	D32831
Manganese	12	0.016	0.10	*	mg/L	50	3/15/2016 1:41:07 PM	A32792
Potassium	11	0.18	1.0		mg/L	1	3/11/2016 5:13:28 PM	C32754
Silver	ND	0.0028	0.0050		mg/L	1	3/11/2016 5:13:28 PM	C32754
Sodium	6000	9.6	100		mg/L	100	3/16/2016 2:08:06 PM	D32831
Zinc	0.017	0.014	0.050	J	mg/L	5	3/16/2016 2:06:03 PM	D32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.13	0.0053	0.010		mg/L	5	3/11/2016 3:57:50 PM	24015
Cadmium	ND	0.0031	0.010		mg/L	5	3/11/2016 3:57:50 PM	24015
Chromium	ND	0.011	0.030		mg/L	5	3/11/2016 3:57:50 PM	24015
Copper	ND	0.026	0.030		mg/L	5	3/14/2016 2:06:46 PM	24015
Iron	2.4	0.036	0.10	*	mg/L	5	3/11/2016 3:57:50 PM	24015
Manganese	12	0.030	0.040	*	mg/L	20	3/11/2016 3:59:50 PM	24015
Silver	ND	0.0021	0.0050		mg/L	1	3/23/2016 12:03:45 PM	24381
Zinc	0.022	0.019	0.050	J	mg/L	5	3/14/2016 2:06:46 PM	24015
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.013	0.0065	0.10	J*	mg/L	100	3/24/2016 5:10:31 PM	B33051

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 1:40:00 PM
Lab ID: 1602B49-019
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.0013	0.025		mg/L	50	3/22/2016 8:01:18 PM	C32978
Selenium	0.043	0.019	0.10	J	mg/L	100	3/24/2016 5:10:31 PM	B33051
Uranium	0.24	0.00024	0.025	*	mg/L	50	3/22/2016 8:01:18 PM	C32978
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.015	0.050		mg/L	50	3/11/2016 4:08:16 PM	24015
Lead	0.0038	0.0024	0.025	J	mg/L	50	3/11/2016 4:08:16 PM	24015
Selenium	0.030	0.0062	0.050	J	mg/L	50	3/11/2016 4:08:16 PM	24015
Uranium	0.22	0.00025	0.025	*	mg/L	50	3/11/2016 4:08:16 PM	24015
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/2/2016 1:36:50 PM	24021
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Aniline	ND	9.8	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/13/2016 3:22:19 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/13/2016 3:22:19 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Carbazole	ND	7.2	10		µg/L	1	3/13/2016 3:22:19 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/13/2016 3:22:19 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/13/2016 3:22:19 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/13/2016 3:22:19 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/13/2016 3:22:19 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/13/2016 3:22:19 PM	24000

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 1:40:00 PM
Lab ID: 1602B49-019
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/13/2016 3:22:19 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/13/2016 3:22:19 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/13/2016 3:22:19 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/13/2016 3:22:19 PM	24000
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/13/2016 3:22:19 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/13/2016 3:22:19 PM	24000
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/13/2016 3:22:19 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/13/2016 3:22:19 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/13/2016 3:22:19 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/13/2016 3:22:19 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Fluorene	ND	7.2	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/13/2016 3:22:19 PM	24000
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/13/2016 3:22:19 PM	24000
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/13/2016 3:22:19 PM	24000
2-Methylphenol	ND	8.2	10		µg/L	1	3/13/2016 3:22:19 PM	24000
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/13/2016 3:22:19 PM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/13/2016 3:22:19 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/13/2016 3:22:19 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Naphthalene	ND	5.9	10		µg/L	1	3/13/2016 3:22:19 PM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/13/2016 3:22:19 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/13/2016 3:22:19 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/13/2016 3:22:19 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/13/2016 3:22:19 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/13/2016 3:22:19 PM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Phenol	ND	5.1	10		µg/L	1	3/13/2016 3:22:19 PM	24000

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 1:40:00 PM
Lab ID: 1602B49-019
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/13/2016 3:22:19 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/13/2016 3:22:19 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/13/2016 3:22:19 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/13/2016 3:22:19 PM	24000
Surr: 2-Fluorophenol	10.6	0	4.63-113		%Rec	1	3/13/2016 3:22:19 PM	24000
Surr: Phenol-d5	13.9	0	4.13-124		%Rec	1	3/13/2016 3:22:19 PM	24000
Surr: 2,4,6-Tribromophenol	22.5	0	5.14-132		%Rec	1	3/13/2016 3:22:19 PM	24000
Surr: Nitrobenzene-d5	73.3	0	9.13-140		%Rec	1	3/13/2016 3:22:19 PM	24000
Surr: 2-Fluorobiphenyl	69.0	0	10.8-132		%Rec	1	3/13/2016 3:22:19 PM	24000
Surr: 4-Terphenyl-d14	54.2	0	12.9-107		%Rec	1	3/13/2016 3:22:19 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	ND	0.096	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
Toluene	ND	0.089	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
Naphthalene	ND	0.083	2.0		µg/L	1	3/4/2016 2:41:19 PM	R32609
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/4/2016 2:41:19 PM	R32609
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/4/2016 2:41:19 PM	R32609
Acetone	2.3	0.88	10	J	µg/L	1	3/3/2016 10:01:01 PM	R32574
Bromobenzene	ND	0.080	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
Bromoform	ND	0.10	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
Bromomethane	ND	0.78	3.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
2-Butanone	ND	0.32	10		µg/L	1	3/3/2016 10:01:01 PM	R32574
Carbon disulfide	ND	0.60	10		µg/L	1	3/3/2016 10:01:01 PM	R32574
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
Chloroethane	ND	0.15	2.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
Chloroform	0.18	0.089	1.0	J	µg/L	1	3/3/2016 10:01:01 PM	R32574
Chloromethane	ND	0.21	3.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 1:40:00 PM
Lab ID: 1602B49-019
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
Dibromomethane	ND	0.12	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
2-Hexanone	ND	0.36	10		µg/L	1	3/3/2016 10:01:01 PM	R32574
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/3/2016 10:01:01 PM	R32574
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
Styrene	ND	0.095	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/3/2016 10:01:01 PM	R32574
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/3/2016 10:01:01 PM	R32574
Surr: 1,2-Dichloroethane-d4	99.8	0	70-130		%Rec	1	3/3/2016 10:01:01 PM	R32574

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 1:40:00 PM
Lab ID: 1602B49-019
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	97.5	0	70-130		%Rec	1	3/3/2016 10:01:01 PM	R32574
Surr: Dibromofluoromethane	108	0	70-130		%Rec	1	3/3/2016 10:01:01 PM	R32574
Surr: Toluene-d8	105	0	70-130		%Rec	1	3/3/2016 10:01:01 PM	R32574

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 2:50:00 PM
Lab ID: 1602B49-020
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	52	0.69	1.0		mg/L	1	3/1/2016 7:17:21 PM	24002
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/1/2016 7:17:21 PM	24002
Surr: DNOP	97.7	0	70-141		%Rec	1	3/1/2016 7:17:21 PM	24002
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.12	0.025	0.050		mg/L	1	3/3/2016 11:24:28 AM	A32557
Surr: BFB	104	0	49.5-130		%Rec	1	3/3/2016 11:24:28 AM	A32557
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	0.69	0.11	0.50		mg/L	5	3/4/2016 5:33:44 PM	R32615
Chloride	860	2.7	50		mg/L	100	3/9/2016 9:38:57 PM	R32693
Bromide	2.0	0.16	0.50		mg/L	5	3/4/2016 5:33:44 PM	R32615
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5	H	mg/L	5	3/4/2016 5:33:44 PM	R32615
Sulfate	120	0.32	2.5		mg/L	5	3/4/2016 5:33:44 PM	R32615
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	3/1/2016 3:13:22 PM	R32498
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.073	0.0013	0.0020		mg/L	1	3/11/2016 5:15:39 PM	C32754
Cadmium	ND	0.00075	0.0020		mg/L	1	3/11/2016 5:15:39 PM	C32754
Calcium	20	0.26	1.0		mg/L	1	3/11/2016 5:15:39 PM	C32754
Chromium	ND	0.0018	0.0060		mg/L	1	3/11/2016 5:15:39 PM	C32754
Copper	ND	0.0040	0.0060		mg/L	1	3/15/2016 1:44:54 PM	A32792
Iron	0.19	0.0091	0.020		mg/L	1	3/15/2016 1:44:54 PM	A32792
Magnesium	2.5	0.013	1.0		mg/L	1	3/11/2016 5:15:39 PM	C32754
Manganese	0.44	0.00032	0.0020	*	mg/L	1	3/11/2016 5:15:39 PM	C32754
Potassium	2.3	0.18	1.0		mg/L	1	3/11/2016 5:15:39 PM	C32754
Silver	ND	0.0028	0.0050		mg/L	1	3/11/2016 5:15:39 PM	C32754
Sodium	680	0.96	10		mg/L	10	3/16/2016 2:17:27 PM	D32831
Zinc	0.0099	0.0028	0.010	J	mg/L	1	3/16/2016 2:15:32 PM	D32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.092	0.0011	0.0020		mg/L	1	3/11/2016 4:01:44 PM	24015
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 4:01:44 PM	24015
Chromium	ND	0.0022	0.0060		mg/L	1	3/11/2016 4:01:44 PM	24015
Copper	0.010	0.0051	0.0060		mg/L	1	3/14/2016 2:08:46 PM	24015
Iron	0.89	0.0072	0.020	*	mg/L	1	3/11/2016 4:01:44 PM	24015
Manganese	0.41	0.0015	0.0020	*	mg/L	1	3/11/2016 4:01:44 PM	24015
Silver	ND	0.0021	0.0050		mg/L	1	3/23/2016 12:07:20 PM	24381
Zinc	0.0061	0.0039	0.010	J	mg/L	1	3/14/2016 2:08:46 PM	24015
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0029	0.000065	0.0010		mg/L	1	3/15/2016 6:13:32 PM	C32805

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 2:50:00 PM
Lab ID: 1602B49-020
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00016	0.000026	0.00050	J	mg/L	1	3/15/2016 6:13:32 PM	C32805
Selenium	0.0071	0.00097	0.0050		mg/L	5	3/22/2016 8:04:21 PM	C32978
Uranium	0.025	0.000024	0.0025		mg/L	5	3/22/2016 8:04:21 PM	C32978
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0026	0.00029	0.0010		mg/L	1	3/11/2016 2:03:40 PM	24015
Lead	0.0015	0.000047	0.00050		mg/L	1	3/11/2016 2:03:40 PM	24015
Selenium	0.0035	0.00062	0.0050	J	mg/L	5	3/11/2016 4:11:17 PM	24015
Uranium	0.023	0.000025	0.0025		mg/L	5	3/11/2016 4:11:17 PM	24015
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/2/2016 1:38:51 PM	24021
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	80	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Acenaphthylene	ND	72	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Aniline	ND	98	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Anthracene	ND	66	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Azobenzene	ND	93	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Benz(a)anthracene	ND	61	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Benzo(a)pyrene	ND	63	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Benzo(b)fluoranthene	ND	66	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Benzo(g,h,i)perylene	ND	68	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Benzo(k)fluoranthene	ND	72	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Benzoic acid	ND	98	200	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Benzyl alcohol	ND	80	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Bis(2-chloroethoxy)methane	ND	73	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Bis(2-chloroethyl)ether	ND	83	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Bis(2-chloroisopropyl)ether	ND	91	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Bis(2-ethylhexyl)phthalate	ND	75	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
4-Bromophenyl phenyl ether	ND	86	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Butyl benzyl phthalate	ND	78	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Carbazole	ND	72	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
4-Chloro-3-methylphenol	ND	80	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
4-Chloroaniline	ND	71	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
2-Chloronaphthalene	ND	72	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
2-Chlorophenol	ND	87	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
4-Chlorophenyl phenyl ether	ND	82	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Chrysene	ND	66	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Di-n-butyl phthalate	ND	81	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Di-n-octyl phthalate	ND	63	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 2:50:00 PM
Lab ID: 1602B49-020 **Matrix:** AQUEOUS **Received Date:** 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	68	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Dibenzofuran	ND	86	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
1,2-Dichlorobenzene	ND	64	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
1,3-Dichlorobenzene	ND	61	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
1,4-Dichlorobenzene	ND	63	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
3,3´-Dichlorobenzidine	ND	47	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Diethyl phthalate	ND	82	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Dimethyl phthalate	ND	75	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
2,4-Dichlorophenol	ND	76	200	D	µg/L	10	3/4/2016 2:12:19 PM	24000
2,4-Dimethylphenol	ND	47	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
4,6-Dinitro-2-methylphenol	ND	73	200	D	µg/L	10	3/4/2016 2:12:19 PM	24000
2,4-Dinitrophenol	ND	99	200	D	µg/L	10	3/4/2016 2:12:19 PM	24000
2,4-Dinitrotoluene	ND	85	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
2,6-Dinitrotoluene	ND	75	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Fluoranthene	ND	61	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Fluorene	ND	72	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Hexachlorobenzene	ND	71	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Hexachlorobutadiene	ND	52	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Hexachlorocyclopentadiene	ND	52	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Hexachloroethane	ND	58	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Indeno(1,2,3-cd)pyrene	ND	56	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Isophorone	ND	81	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
1-Methylnaphthalene	270	68	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
2-Methylnaphthalene	ND	70	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
2-Methylphenol	ND	82	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
3+4-Methylphenol	ND	71	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
N-Nitrosodi-n-propylamine	ND	78	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
N-Nitrosodimethylamine	ND	91	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
N-Nitrosodiphenylamine	ND	62	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Naphthalene	ND	59	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
2-Nitroaniline	ND	90	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
3-Nitroaniline	ND	88	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
4-Nitroaniline	ND	91	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Nitrobenzene	ND	78	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
2-Nitrophenol	ND	76	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
4-Nitrophenol	ND	67	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Pentachlorophenol	ND	76	200	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Phenanthrene	ND	68	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Phenol	ND	51	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 2:50:00 PM
Lab ID: 1602B49-020
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	55	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Pyridine	ND	67	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
1,2,4-Trichlorobenzene	ND	62	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
2,4,5-Trichlorophenol	ND	84	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
2,4,6-Trichlorophenol	ND	88	100	D	µg/L	10	3/4/2016 2:12:19 PM	24000
Surr: 2-Fluorophenol	31.7	0	4.63-113	D	%Rec	10	3/4/2016 2:12:19 PM	24000
Surr: Phenol-d5	33.0	0	4.13-124	D	%Rec	10	3/4/2016 2:12:19 PM	24000
Surr: 2,4,6-Tribromophenol	57.0	0	5.14-132	D	%Rec	10	3/4/2016 2:12:19 PM	24000
Surr: Nitrobenzene-d5	95.2	0	9.13-140	D	%Rec	10	3/4/2016 2:12:19 PM	24000
Surr: 2-Fluorobiphenyl	91.4	0	10.8-132	D	%Rec	10	3/4/2016 2:12:19 PM	24000
Surr: 4-Terphenyl-d14	73.8	0	12.9-107	D	%Rec	10	3/4/2016 2:12:19 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	4.1	0.096	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
Toluene	0.22	0.089	1.0	J	µg/L	1	3/3/2016 10:29:49 PM	R32574
Ethylbenzene	1.1	0.11	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
1,2,4-Trimethylbenzene	6.6	0.10	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
1,3,5-Trimethylbenzene	3.8	0.12	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
1,2-Dichloroethane (EDC)	0.79	0.053	1.0	J	µg/L	1	3/3/2016 10:29:49 PM	R32574
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
Naphthalene	28	0.083	2.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
1-Methylnaphthalene	16	0.20	4.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
2-Methylnaphthalene	11	0.16	4.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
Acetone	23	0.88	10		µg/L	1	3/3/2016 10:29:49 PM	R32574
Bromobenzene	ND	0.080	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
Bromoform	ND	0.10	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
Bromomethane	1.6	0.78	3.0	J	µg/L	1	3/4/2016 3:10:02 PM	R32609
2-Butanone	5.6	0.32	10	J	µg/L	1	3/3/2016 10:29:49 PM	R32574
Carbon disulfide	ND	0.60	10		µg/L	1	3/3/2016 10:29:49 PM	R32574
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
Chloroethane	ND	0.15	2.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
Chloroform	ND	0.089	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
Chloromethane	ND	0.21	3.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 2:50:00 PM
Lab ID: 1602B49-020 **Matrix:** AQUEOUS **Received Date:** 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
Dibromomethane	ND	0.12	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
2-Hexanone	1.6	0.36	10	J	µg/L	1	3/3/2016 10:29:49 PM	R32574
Isopropylbenzene	0.31	0.098	1.0	J	µg/L	1	3/3/2016 10:29:49 PM	R32574
4-Isopropyltoluene	1.1	0.14	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
4-Methyl-2-pentanone	1.8	0.15	10	J	µg/L	1	3/3/2016 10:29:49 PM	R32574
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
n-Propylbenzene	0.39	0.13	1.0	J	µg/L	1	3/3/2016 10:29:49 PM	R32574
sec-Butylbenzene	0.17	0.11	1.0	J	µg/L	1	3/3/2016 10:29:49 PM	R32574
Styrene	ND	0.095	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/3/2016 10:29:49 PM	R32574
Xylenes, Total	26	0.32	1.5		µg/L	1	3/3/2016 10:29:49 PM	R32574
Surr: 1,2-Dichloroethane-d4	97.5	0	70-130		%Rec	1	3/3/2016 10:29:49 PM	R32574

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: Quarterly GW Sampling
Collection Date: 2/24/2016 2:50:00 PM
Lab ID: 1602B49-020
Matrix: AQUEOUS
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	114	0	70-130		%Rec	1	3/3/2016 10:29:49 PM	R32574
Surr: Dibromofluoromethane	105	0	70-130		%Rec	1	3/3/2016 10:29:49 PM	R32574
Surr: Toluene-d8	105	0	70-130		%Rec	1	3/3/2016 10:29:49 PM	R32574

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1602B49-021
Matrix: TRIP BLANK
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	3/3/2016 11:49:12 AM	A32557
Surr: BFB	82.6	0	49.5-130		%Rec	1	3/3/2016 11:49:12 AM	A32557
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	ND	0.096	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Toluene	ND	0.089	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Naphthalene	ND	0.083	2.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Acetone	ND	0.88	10		µg/L	1	3/4/2016 3:46:18 AM	B32574
Bromobenzene	ND	0.080	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Bromoform	ND	0.10	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Bromomethane	ND	0.78	3.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
2-Butanone	ND	0.32	10		µg/L	1	3/4/2016 3:46:18 AM	B32574
Carbon disulfide	ND	0.60	10		µg/L	1	3/4/2016 3:46:18 AM	B32574
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Chloroethane	ND	0.15	2.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Chloroform	ND	0.089	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Chloromethane	ND	0.21	3.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Dibromomethane	ND	0.12	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1602B49-021
Matrix: TRIP BLANK
Received Date: 2/26/2016 4:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
2-Hexanone	ND	0.36	10		µg/L	1	3/4/2016 3:46:18 AM	B32574
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/4/2016 3:46:18 AM	B32574
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Styrene	ND	0.095	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/4/2016 3:46:18 AM	B32574
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/4/2016 3:46:18 AM	B32574
Surr: 1,2-Dichloroethane-d4	98.3	0	70-130		%Rec	1	3/4/2016 3:46:18 AM	B32574
Surr: 4-Bromofluorobenzene	98.6	0	70-130		%Rec	1	3/4/2016 3:46:18 AM	B32574
Surr: Dibromofluoromethane	104	0	70-130		%Rec	1	3/4/2016 3:46:18 AM	B32574
Surr: Toluene-d8	111	0	70-130		%Rec	1	3/4/2016 3:46:18 AM	B32574

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**
01-Apr-16

Client: Western Refining Southwest, Gallup
Project: Quarterly GW Sampling

Sample ID **MB-C**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C32754**	RunNo: **32754**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1002498** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C32754**	RunNo: **32754**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1002499** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.2	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Calcium	51	1.0	50.00	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	99.2	85	115			
Iron	0.50	0.020	0.5000	0	99.5	85	115			
Magnesium	51	1.0	50.00	0	101	85	115			
Manganese	0.49	0.0020	0.5000	0	97.7	85	115			
Potassium	49	1.0	50.00	0	98.3	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C32754**	RunNo: **32754**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1002500** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0018	0.0020	0.002000	0	90.0	50	150			J
Cadmium	0.0022	0.0020	0.002000	0	108	50	150			
Calcium	0.51	1.0	0.5000	0	102	50	150			J
Chromium	0.0058	0.0060	0.006000	0	97.3	50	150			J
Iron	0.016	0.020	0.02000	0	81.3	50	150			J
Magnesium	0.53	1.0	0.5000	0	105	50	150			J
Manganese	0.0018	0.0020	0.002000	0	92.5	50	150			J
Potassium	0.54	1.0	0.5000	0	108	50	150			J
Silver	0.0048	0.0050	0.005000	0	96.8	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A32792**	RunNo: **32792**
Prep Date:	Analysis Date: **3/15/2016**	SeqNo: **1004789** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A32792**	RunNo: **32792**
Prep Date:	Analysis Date: **3/15/2016**	SeqNo: **1004790** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.0	85	115			
Copper	0.47	0.0060	0.5000	0	94.0	85	115			
Iron	0.49	0.020	0.5000	0	97.7	85	115			
Manganese	0.47	0.0020	0.5000	0	93.5	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A32792**	RunNo: **32792**
Prep Date:	Analysis Date: **3/15/2016**	SeqNo: **1004791** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0019	0.0020	0.002000	0	93.0	50	150			J
Copper	0.0065	0.0060	0.006000	0	108	50	150			
Iron	0.023	0.020	0.02000	0	114	50	150			
Manganese	0.0021	0.0020	0.002000	0	103	50	150			

Sample ID **MB-D**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **D32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006183** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Sodium	ND	1.0								
Zinc	ND	0.010								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**LCS-D**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID:	**D32831**	RunNo:	**32831**					
Prep Date:		Analysis Date:	**3/16/2016**	SeqNo:	**1006187**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.0	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Magnesium	51	1.0	50.00	0	101	85	115			
Manganese	0.49	0.0020	0.5000	0	97.7	85	115			
Sodium	50	1.0	50.00	0	100	85	115			
Zinc	0.50	0.010	0.5000	0	99.5	85	115			

Sample ID	**LLLCS-D**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**D32831**	RunNo:	**32831**					
Prep Date:		Analysis Date:	**3/16/2016**	SeqNo:	**1006188**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0024	0.0020	0.002000	0	119	50	150			
Calcium	0.54	1.0	0.5000	0	108	50	150			J
Iron	0.021	0.020	0.02000	0	106	50	150			
Magnesium	0.53	1.0	0.5000	0	106	50	150			J
Manganese	0.0022	0.0020	0.002000	0	109	50	150			
Sodium	0.46	1.0	0.5000	0	91.5	50	150			J
Zinc	0.0056	0.010	0.005000	0	112	50	150			J

Sample ID	**MB-B**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**B32831**	RunNo:	**32831**					
Prep Date:		Analysis Date:	**3/16/2016**	SeqNo:	**1006651**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	**LCS-B**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID:	**B32831**	RunNo:	**32831**					
Prep Date:		Analysis Date:	**3/16/2016**	SeqNo:	**1006655**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.51	0.020	0.5000	0	102	85	115			
Sodium	49	1.0	50.00	0	97.6	85	115			
Zinc	0.52	0.010	0.5000	0	103	85	115			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**LLLCS-B**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Dissolved Metals**
Client ID:	**BatchQC**	Batch ID:	**B32831**	RunNo:	**32831**
Prep Date:		Analysis Date:	**3/16/2016**	SeqNo:	**1006656** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.023	0.020	0.02000	0	115	50	150			
Sodium	0.48	1.0	0.5000	0	96.5	50	150			J
Zinc	0.0061	0.010	0.005000	0	122	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-24015**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**24015**	RunNo:	**32754**					
Prep Date:	**3/1/2016**	Analysis Date:	**3/11/2016**	SeqNo:	**1002480**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID	**LCS-24015**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID:	**24015**	RunNo:	**32754**					
Prep Date:	**3/1/2016**	Analysis Date:	**3/11/2016**	SeqNo:	**1002481**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.2	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	97.4	85	115			
Copper	0.49	0.0060	0.5000	0	98.9	85	115			
Iron	0.49	0.020	0.5000	0	98.0	85	115			
Manganese	0.48	0.0020	0.5000	0	96.9	85	115			
Zinc	0.49	0.010	0.5000	0	99.0	85	115			

Sample ID	**LLLCS-24015**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID:	**24015**	RunNo:	**32754**					
Prep Date:	**3/1/2016**	Analysis Date:	**3/11/2016**	SeqNo:	**1002482**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	99.5	50	150			J
Cadmium	0.0018	0.0020	0.002000	0	89.0	50	150			J
Chromium	0.0053	0.0060	0.006000	0	89.0	50	150			J
Copper	0.0062	0.0060	0.006000	0	104	50	150			
Iron	0.014	0.020	0.02000	0	71.0	50	150			J
Manganese	0.0018	0.0020	0.002000	0	89.0	50	150			J
Zinc	0.0062	0.010	0.005000	0	125	50	150			J

Sample ID	**1602B49-001FMS**	SampType:	**MS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-19**	Batch ID:	**24015**	RunNo:	**32754**					
Prep Date:	**3/1/2016**	Analysis Date:	**3/11/2016**	SeqNo:	**1002539**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.49	0.0020	0.5000	0	97.5	70	130			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**1602B49-001FMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-19**	Batch ID:	**24015**		RunNo:	**32754**				
Prep Date:	**3/1/2016**	Analysis Date:	**3/11/2016**		SeqNo:	**1002539**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.47	0.0060	0.5000	0.01205	91.7	70	130			
Copper	0.51	0.0060	0.5000	0.01788	97.5	70	130			
Zinc	0.54	0.010	0.5000	0.07960	91.2	70	130			

Sample ID	**1602B49-001FMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-19**	Batch ID:	**24015**		RunNo:	**32754**				
Prep Date:	**3/1/2016**	Analysis Date:	**3/11/2016**		SeqNo:	**1002540**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.49	0.0020	0.5000	0	98.2	70	130	0.705	20	
Chromium	0.47	0.0060	0.5000	0.01205	92.3	70	130	0.591	20	
Copper	0.51	0.0060	0.5000	0.01788	98.3	70	130	0.779	20	
Zinc	0.54	0.010	0.5000	0.07960	92.1	70	130	0.907	20	

Sample ID	**1602B49-002FMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-34**	Batch ID:	**24015**		RunNo:	**32754**				
Prep Date:	**3/1/2016**	Analysis Date:	**3/11/2016**		SeqNo:	**1002549**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.64	0.0020	0.5000	0.1468	98.4	70	130			
Cadmium	0.51	0.0020	0.5000	0	103	70	130			
Chromium	0.49	0.0060	0.5000	0	98.6	70	130			
Copper	0.52	0.0060	0.5000	0	104	70	130			
Manganese	0.53	0.0020	0.5000	0.04422	97.9	70	130			
Zinc	0.52	0.010	0.5000	0.02346	99.8	70	130			

Sample ID	**1602B49-002FMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-34**	Batch ID:	**24015**		RunNo:	**32754**				
Prep Date:	**3/1/2016**	Analysis Date:	**3/11/2016**		SeqNo:	**1002550**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.0020	0.5000	0.1468	101	70	130	1.87	20	
Cadmium	0.53	0.0020	0.5000	0	105	70	130	2.23	20	
Chromium	0.50	0.0060	0.5000	0	101	70	130	2.34	20	
Copper	0.53	0.0060	0.5000	0	107	70	130	1.99	20	
Manganese	0.54	0.0020	0.5000	0.04422	100	70	130	1.87	20	
Zinc	0.53	0.010	0.5000	0.02346	102	70	130	2.08	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**1602B49-002FMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-34**	Batch ID:	**24015**		RunNo:	**32754**				
Prep Date:	**3/1/2016**	Analysis Date:	**3/11/2016**		SeqNo:	**1002552**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	2.1	0.10	0.5000	1.623	90.6	70	130			

Sample ID	**1602B49-002FMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-34**	Batch ID:	**24015**		RunNo:	**32754**				
Prep Date:	**3/1/2016**	Analysis Date:	**3/11/2016**		SeqNo:	**1002553**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	2.1	0.10	0.5000	1.623	103	70	130	2.85	20	

Sample ID	**MB-24381**	SampType:	**MBLK**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**PBW**	Batch ID:	**24381**		RunNo:	**33001**				
Prep Date:	**3/22/2016**	Analysis Date:	**3/23/2016**		SeqNo:	**1012275**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID	**LCS-24381**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**LCSW**	Batch ID:	**24381**		RunNo:	**33001**				
Prep Date:	**3/22/2016**	Analysis Date:	**3/23/2016**		SeqNo:	**1012276**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	104	85	115			

Sample ID	**LLLCS-24381**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**BatchQC**	Batch ID:	**24381**		RunNo:	**33001**				
Prep Date:	**3/22/2016**	Analysis Date:	**3/23/2016**		SeqNo:	**1012277**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.0050	0.0050	0.005000	0	99.4	50	150			J

Sample ID	**1602B49-001FMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-19**	Batch ID:	**24381**		RunNo:	**33001**				
Prep Date:	**3/22/2016**	Analysis Date:	**3/23/2016**		SeqNo:	**1012301**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.093	0.0050	0.1000	0	93.1	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**1602B49-001FMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-19**	Batch ID:	**24381**		RunNo:	**33001**				
Prep Date:	**3/22/2016**	Analysis Date:	**3/23/2016**		SeqNo:	**1012302**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.089	0.0050	0.1000	0	88.6	70	130	4.95	20	

Sample ID	**1602B49-002FMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-34**	Batch ID:	**24381**		RunNo:	**33001**				
Prep Date:	**3/22/2016**	Analysis Date:	**3/23/2016**		SeqNo:	**1012307**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.096	0.0050	0.1000	0	96.5	70	130			

Sample ID	**1602B49-002FMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-34**	Batch ID:	**24381**		RunNo:	**33001**				
Prep Date:	**3/22/2016**	Analysis Date:	**3/23/2016**		SeqNo:	**1012308**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.085	0.0050	0.1000	0	85.5	70	130	12.1	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**1602B49-001EMSDL**	SampType:	**MSD**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**MKTF-19**	Batch ID:	**C32805**		RunNo:	**32805**				
Prep Date:		Analysis Date:	**3/15/2016**		SeqNo:	**1005530**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.040	0.0010	0.02500	0.01520	101	70	130	2.01	20	
Lead	0.016	0.00050	0.01250	0.003383	101	70	130	0.717	20	
Uranium	0.016	0.00050	0.01250	0.0006018	120	70	130	0.0122	20	

Sample ID	**1602B49-001EMSLL**	SampType:	**MS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**MKTF-19**	Batch ID:	**C32805**		RunNo:	**32805**				
Prep Date:		Analysis Date:	**3/15/2016**		SeqNo:	**1005531**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.040	0.0010	0.02500	0.01520	97.7	70	130			
Lead	0.016	0.00050	0.01250	0.003383	100	70	130			
Uranium	0.016	0.00050	0.01250	0.0006018	120	70	130			

Sample ID	**LCS**	SampType:	**LCS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**LCSW**	Batch ID:	**C32805**		RunNo:	**32805**				
Prep Date:		Analysis Date:	**3/15/2016**		SeqNo:	**1005551**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.3	85	115			
Lead	0.012	0.00050	0.01250	0	94.7	85	115			
Selenium	0.026	0.0010	0.02500	0	102	85	115			
Uranium	0.012	0.00050	0.01250	0	95.7	85	115			

Sample ID	**LLLCS**	SampType:	**LCSLL**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**BatchQC**	Batch ID:	**C32805**		RunNo:	**32805**				
Prep Date:		Analysis Date:	**3/15/2016**		SeqNo:	**1005552**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	105	50	150			
Lead	0.00049	0.00050	0.0005000	0	98.4	50	150			J
Selenium	0.0011	0.0010	0.001000	0	107	50	150			
Uranium	0.00047	0.00050	0.0005000	0	94.8	50	150			J

Sample ID	**MB**	SampType:	**MBLK**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**PBW**	Batch ID:	**C32805**		RunNo:	**32805**				
Prep Date:		Analysis Date:	**3/15/2016**		SeqNo:	**1005553**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C32805**	RunNo: **32805**
Prep Date:	Analysis Date: **3/15/2016**	SeqNo: **1005553** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B32978**	RunNo: **32978**
Prep Date:	Analysis Date: **3/22/2016**	SeqNo: **1011964** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.8	85	115			
Lead	0.012	0.00050	0.01250	0	98.2	85	115			
Selenium	0.025	0.0010	0.02500	0	98.1	85	115			
Uranium	0.012	0.00050	0.01250	0	98.8	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C32978**	RunNo: **32978**
Prep Date:	Analysis Date: **3/22/2016**	SeqNo: **1011965** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	97.3	85	115			
Selenium	0.024	0.0010	0.02500	0	97.5	85	115			
Uranium	0.012	0.00050	0.01250	0	96.7	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B32978**	RunNo: **32978**
Prep Date:	Analysis Date: **3/22/2016**	SeqNo: **1011966** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	101	50	150			
Lead	0.00050	0.00050	0.0005000	0	100	50	150			
Selenium	0.0010	0.0010	0.001000	0	102	50	150			
Uranium	0.00050	0.00050	0.0005000	0	100	50	150			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C32978**	RunNo: **32978**
Prep Date:	Analysis Date: **3/22/2016**	SeqNo: **1011967** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00050	0.00050	0.0005000	0	100	50	150			
Selenium	0.00095	0.0010	0.001000	0	94.8	50	150			J
Uranium	0.00050	0.00050	0.0005000	0	99.8	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B32978**	RunNo: **32978**
Prep Date:	Analysis Date: **3/22/2016**	SeqNo: **1011968** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C32978**	RunNo: **32978**
Prep Date:	Analysis Date: **3/22/2016**	SeqNo: **1011969** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33051**	RunNo: **33051**
Prep Date:	Analysis Date: **3/24/2016**	SeqNo: **1014293** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.5	85	115			
Selenium	0.024	0.0010	0.02500	0	96.4	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33051**	RunNo: **33051**
Prep Date:	Analysis Date: **3/24/2016**	SeqNo: **1014294** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	100	50	150			
Selenium	0.00099	0.0010	0.001000	0	98.8	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33051**	RunNo: **33051**
Prep Date:	Analysis Date: **3/24/2016**	SeqNo: **1014295** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-24015**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**24015**	RunNo:	**32687**					
Prep Date:	**3/1/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000379**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-24015**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**24015**	RunNo:	**32687**					
Prep Date:	**3/1/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000382**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	103	85	115			
Lead	0.013	0.00050	0.01250	0	102	85	115			
Selenium	0.026	0.0010	0.02500	0	102	85	115			
Uranium	0.013	0.00050	0.01250	0	100	85	115			

Sample ID	**MSLLLCS-24015**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**24015**	RunNo:	**32687**					
Prep Date:	**3/1/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000385**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00082	0.0010	0.001000	0	82.5	50	150			J
Lead	0.00038	0.00050	0.0005000	0	76.2	50	150			J
Selenium	0.00075	0.0010	0.001000	0	75.0	50	150			J
Uranium	0.00042	0.00050	0.0005000	0	83.7	50	150			J

Sample ID	**1602B49-004FMSLL**	SampType:	**MSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**MKTF-32**	Batch ID:	**24015**	RunNo:	**32737**					
Prep Date:	**3/1/2016**	Analysis Date:	**3/11/2016**	SeqNo:	**1003032**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.028	0.0050	0.02500	0.003140	100	70	130			
Uranium	0.075	0.0025	0.01250	0.06161	104	70	130			

Sample ID	**1602B49-004FMSLL**	SampType:	**MSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**MKTF-32**	Batch ID:	**24015**	RunNo:	**32737**					
Prep Date:	**3/1/2016**	Analysis Date:	**3/11/2016**	SeqNo:	**1003034**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.028	0.0010	0.02500	0.003392	97.6	70	130			
Lead	0.017	0.00050	0.01250	0.002795	112	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**1602B49-005FMSDL**	SampType:	**MSDLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-41**	Batch ID:	**24015**		RunNo:	**32737**				
Prep Date:	**3/1/2016**	Analysis Date:	**3/11/2016**		SeqNo:	**1003041**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.031	0.0050	0.02500	0.004878	105	70	130	3.43	20	
Lead	0.017	0.0025	0.01250	0.003535	107	70	130	1.96	20	
Selenium	0.068	0.0050	0.02500	0.04372	97.8	70	130	2.44	20	
Uranium	0.036	0.0025	0.01250	0.02176	116	70	130	2.81	20	

Sample ID	**1602B49-005FMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-41**	Batch ID:	**24015**		RunNo:	**32737**				
Prep Date:	**3/1/2016**	Analysis Date:	**3/11/2016**		SeqNo:	**1003044**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.030	0.0050	0.02500	0.004878	101	70	130			
Lead	0.017	0.0025	0.01250	0.003535	104	70	130			
Selenium	0.067	0.0050	0.02500	0.04372	91.3	70	130			
Uranium	0.035	0.0025	0.01250	0.02176	108	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-24021**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**24021**	RunNo:	**32516**					
Prep Date:	**3/2/2016**	Analysis Date:	**3/2/2016**	SeqNo:	**994818**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-24021**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**24021**	RunNo:	**32516**					
Prep Date:	**3/2/2016**	Analysis Date:	**3/2/2016**	SeqNo:	**994819**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0052	0.00020	0.005000	0	103	80	120			

Sample ID	**1602B49-001FMS**	SampType:	**MS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**MKTF-19**	Batch ID:	**24021**	RunNo:	**32516**					
Prep Date:	**3/2/2016**	Analysis Date:	**3/2/2016**	SeqNo:	**994901**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.0010	0.005000	0	95.6	75	125			

Sample ID	**1602B49-001FMSD**	SampType:	**MSD**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**MKTF-19**	Batch ID:	**24021**	RunNo:	**32516**					
Prep Date:	**3/2/2016**	Analysis Date:	**3/2/2016**	SeqNo:	**994902**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.0010	0.005000	0	95.4	75	125	0.217	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **A32480**	RunNo: **32480**							
Prep Date:	Analysis Date: **2/29/2016**	SeqNo: **993533**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **A32480**	RunNo: **32480**							
Prep Date:	Analysis Date: **2/29/2016**	SeqNo: **993534**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.1	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R32483**	RunNo: **32483**							
Prep Date:	Analysis Date: **2/29/2016**	SeqNo: **993638**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R32483**	RunNo: **32483**							
Prep Date:	Analysis Date: **2/29/2016**	SeqNo: **993639**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.0	0.50	5.000	0	100	90	110			
Bromide	2.5	0.10	2.500	0	101	90	110			
Phosphorus, Orthophosphate (As P	5.4	0.50	5.000	0	107	90	110			
Sulfate	10	0.50	10.00	0	103	90	110			

Sample ID **1602B49-002DMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **MKTF-34**	Batch ID: **R32483**	RunNo: **32483**							
Prep Date:	Analysis Date: **3/1/2016**	SeqNo: **993685**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	4.5	0.10	2.500	2.637	73.9	74.9	117			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**
01-Apr-16

Client: Western Refining Southwest, Gallup
Project: Quarterly GW Sampling

Sample ID **1602B49-002DMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **MKTF-34**	Batch ID: **R32483**	RunNo: **32483**
Prep Date:	Analysis Date: **3/1/2016**	SeqNo: **993686** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	4.5	0.10	2.500	2.637	73.5	74.9	117	0.199	20	S

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32498**	RunNo: **32498**
Prep Date:	Analysis Date: **3/1/2016**	SeqNo: **994128** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32498**	RunNo: **32498**
Prep Date:	Analysis Date: **3/1/2016**	SeqNo: **994129** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.7	0.20	3.500	0	104	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32517**	RunNo: **32517**
Prep Date:	Analysis Date: **3/2/2016**	SeqNo: **994839** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32517**	RunNo: **32517**
Prep Date:	Analysis Date: **3/2/2016**	SeqNo: **994842** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	103	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32541**	RunNo: **32541**
Prep Date:	Analysis Date: **3/2/2016**	SeqNo: **995627** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32541**	RunNo: **32541**
Prep Date:	Analysis Date: **3/2/2016**	SeqNo: **995628** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Bromide	2.4	0.10	2.500	0	96.6	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.0	90	110			
Sulfate	9.9	0.50	10.00	0	98.7	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A32541**	RunNo: **32541**
Prep Date:	Analysis Date: **3/2/2016**	SeqNo: **995675** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	0.097	0.50								J
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A32541**	RunNo: **32541**
Prep Date:	Analysis Date: **3/2/2016**	SeqNo: **995676** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	105	90	110			
Chloride	4.9	0.50	5.000	0	97.5	90	110			
Bromide	2.5	0.10	2.500	0	102	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.6	90	110			
Sulfate	10	0.50	10.00	0	99.7	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32615**	RunNo: **32615**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997836** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32615**	RunNo: **32615**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997837** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.9	0.50	5.000	0	98.0	90	110			
Bromide	2.5	0.10	2.500	0	100	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.8	90	110			
Sulfate	9.9	0.50	10.00	0	98.8	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32693**	RunNo: **32693**
Prep Date:	Analysis Date: **3/9/2016**	SeqNo: **1000623** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	0.097	0.50								J
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32693**	RunNo: **32693**
Prep Date:	Analysis Date: **3/9/2016**	SeqNo: **1000624** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	103	90	110			
Chloride	4.7	0.50	5.000	0	94.1	90	110			
Bromide	2.4	0.10	2.500	0	97.9	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.5	90	110			
Sulfate	9.6	0.50	10.00	0	96.3	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	98.3	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A32739**	RunNo: **32739**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1002187** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **A32739**	RunNo: **32739**							
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1002188**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.5	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS-24002**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **24002**	RunNo: **32487**
Prep Date: **3/1/2016**	Analysis Date: **3/1/2016**	SeqNo: **993944** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.6	1.0	5.000	0	92.8	71.3	139			
Surr: DNOP	0.45		0.5000		89.7	70	141			

Sample ID **MB-24002**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **24002**	RunNo: **32487**
Prep Date: **3/1/2016**	Analysis Date: **3/1/2016**	SeqNo: **993945** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.91		1.000		91.4	70	141			

Sample ID **1602B49-001BMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **MKTF-19**	Batch ID: **24002**	RunNo: **32487**
Prep Date: **3/1/2016**	Analysis Date: **3/1/2016**	SeqNo: **993988** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	13	1.0	5.000	7.788	104	59.4	160			
Surr: DNOP	0.47		0.5000		94.9	70	141			

Sample ID **1602B49-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **MKTF-19**	Batch ID: **24002**	RunNo: **32487**
Prep Date: **3/1/2016**	Analysis Date: **3/1/2016**	SeqNo: **993989** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	13	1.0	5.000	7.788	114	59.4	160	3.77	20	
Surr: DNOP	0.49		0.5000		97.4	70	141	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **A32486**	RunNo: **32486**
Prep Date:	Analysis Date: **3/1/2016**	SeqNo: **993897** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		87.8	49.5	130			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **A32486**	RunNo: **32486**
Prep Date:	Analysis Date: **3/1/2016**	SeqNo: **993898** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	94.8	80	120			
Surr: BFB	21		20.00		107	49.5	130			

Sample ID **1602B49-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-19**	Batch ID: **A32486**	RunNo: **32486**
Prep Date:	Analysis Date: **3/1/2016**	SeqNo: **993901** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	1.0	10.00	21.55	107	70	130			
Surr: BFB	450		400.0		113	49.5	130			

Sample ID **1602B49-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-19**	Batch ID: **A32486**	RunNo: **32486**
Prep Date:	Analysis Date: **3/1/2016**	SeqNo: **993902** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	1.0	10.00	21.55	106	70	130	0.261	20	
Surr: BFB	460		400.0		115	49.5	130	0	0	

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **A32557**	RunNo: **32557**
Prep Date:	Analysis Date: **3/3/2016**	SeqNo: **996055** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		90.1	49.5	130			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **A32557**	RunNo: **32557**
Prep Date:	Analysis Date: **3/3/2016**	SeqNo: **996056** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**2.5UG GRO LCS**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSW**	Batch ID:	**A32557**		RunNo:	**32557**				
Prep Date:		Analysis Date:	**3/3/2016**		SeqNo:	**996056**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.49	0.050	0.5000	0	98.8	80	120			
Surr: BFB	20		20.00		102	49.5	130			

Sample ID	**1602B49-017AMS**	SampType:	**MS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**MKTF-18**	Batch ID:	**A32557**		RunNo:	**32557**				
Prep Date:		Analysis Date:	**3/3/2016**		SeqNo:	**996058**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	3.5	0.25	2.500	0.7930	109	70	130			
Surr: BFB	110		100.0		110	49.5	130			

Sample ID	**1602B49-017AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**MKTF-18**	Batch ID:	**A32557**		RunNo:	**32557**				
Prep Date:		Analysis Date:	**3/3/2016**		SeqNo:	**996059**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	3.5	0.25	2.500	0.7930	107	70	130	0.773	20	
Surr: BFB	110		100.0		111	49.5	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32574**	RunNo: **32574**
Prep Date:	Analysis Date: **3/3/2016**	SeqNo: **996625** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	106	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	21	1.0	20.00	0	107	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	107	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	106	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.8	70	130			
Surr: Dibromofluoromethane	12		10.00		116	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **1602b49-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-19**	Batch ID: **R32574**	RunNo: **32574**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **996629** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	2000	20	400.0	1536	106	70	130			
Toluene	430	20	400.0	5.008	106	70	130			
Chlorobenzene	440	20	400.0	0	110	70	130			
1,1-Dichloroethene	420	20	400.0	0	105	70	130			
Trichloroethene (TCE)	380	20	400.0	0	93.9	70	130			
Surr: 1,2-Dichloroethane-d4	190		200.0		92.8	70	130			
Surr: 4-Bromofluorobenzene	180		200.0		91.5	70	130			
Surr: Dibromofluoromethane	190		200.0		96.1	70	130			
Surr: Toluene-d8	200		200.0		101	70	130			

Sample ID **1602b49-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-19**	Batch ID: **R32574**	RunNo: **32574**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **996630** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	2000	20	400.0	1536	110	70	130	0.862	20	
Toluene	400	20	400.0	5.008	99.3	70	130	6.87	20	
Chlorobenzene	420	20	400.0	0	105	70	130	4.78	20	
1,1-Dichloroethene	390	20	400.0	0	98.1	70	130	6.73	20	
Trichloroethene (TCE)	380	20	400.0	0	94.5	70	130	0.666	20	
Surr: 1,2-Dichloroethane-d4	190		200.0		97.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	170		200.0		85.2	70	130	0	0	
Surr: Dibromofluoromethane	200		200.0		99.8	70	130	0	0	
Surr: Toluene-d8	190		200.0		94.5	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32574**	RunNo: **32574**
Prep Date:	Analysis Date: **3/3/2016**	SeqNo: **996651** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32574**	RunNo: **32574**
Prep Date:	Analysis Date: **3/3/2016**	SeqNo: **996651** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	10		10.00		105	70	130			
Surr: Toluene-d8	9.9		10.00		99.3	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **B32574**	RunNo: **32574**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **996658** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	111	70	130			
Toluene	22	1.0	20.00	0	108	70	130			
Chlorobenzene	21	1.0	20.00	0	107	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **B32574**	RunNo: **32574**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **996658** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	23	1.0	20.00	0	114	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Sample ID **rb4**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **B32574**	RunNo: **32574**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **996675** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**
01-Apr-16

Client: Western Refining Southwest, Gallup
Project: Quarterly GW Sampling

Sample ID **rb4**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **B32574**	RunNo: **32574**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **996675** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.6	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb4**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **B32574**	RunNo: **32574**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **996675** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	9.9		10.00		98.6	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32609**	RunNo: **32609**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997685** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32609**	RunNo: **32609**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997709** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Bromomethane	ND	3.0								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		112	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **mb-23981**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **23981**	RunNo: **32524**
Prep Date: **2/29/2016**	Analysis Date: **3/2/2016**	SeqNo: **995048** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **mb-23981**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **23981**	RunNo: **32524**
Prep Date: **2/29/2016**	Analysis Date: **3/2/2016**	SeqNo: **995048** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	190		200.0		92.6	4.63	113			
Surr: Phenol-d5	190		200.0		94.1	4.13	124			
Surr: 2,4,6-Tribromophenol	94		200.0		47.2	5.14	132			
Surr: Nitrobenzene-d5	87		100.0		87.4	9.13	140			
Surr: 2-Fluorobiphenyl	87		100.0		86.9	10.8	132			
Surr: 4-Terphenyl-d14	110		100.0		110	12.9	107			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **lcs-23981**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **23981**	RunNo: **32524**
Prep Date: **2/29/2016**	Analysis Date: **3/2/2016**	SeqNo: **995049** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	91	10	100.0	0	91.0	40.2	107			
4-Chloro-3-methylphenol	160	10	200.0	0	77.5	48.2	107			
2-Chlorophenol	160	10	200.0	0	81.6	42.5	106			
1,4-Dichlorobenzene	83	10	100.0	0	83.3	31.6	111			
2,4-Dinitrotoluene	68	10	100.0	0	67.8	33.6	86.5			
N-Nitrosodi-n-propylamine	85	10	100.0	0	84.8	44	106			
4-Nitrophenol	130	10	200.0	0	63.3	25.5	109			
Pentachlorophenol	97	20	200.0	0	48.6	38.8	97.8			
Phenol	170	10	200.0	0	84.5	22.7	116			
Pyrene	77	10	100.0	0	76.8	29.3	138			
1,2,4-Trichlorobenzene	84	10	100.0	0	83.6	35.3	123			
Surr: 2-Fluorophenol	160		200.0		80.0	4.63	113			
Surr: Phenol-d5	170		200.0		84.9	4.13	124			
Surr: 2,4,6-Tribromophenol	100		200.0		51.0	5.14	132			
Surr: Nitrobenzene-d5	84		100.0		84.1	9.13	140			
Surr: 2-Fluorobiphenyl	91		100.0		91.2	10.8	132			
Surr: 4-Terphenyl-d14	100		100.0		99.8	12.9	107			

Sample ID **mb-24000**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24000**	RunNo: **32558**
Prep Date: **3/1/2016**	Analysis Date: **3/3/2016**	SeqNo: **996116** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **mb-24000**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24000**	RunNo: **32558**
Prep Date: **3/1/2016**	Analysis Date: **3/3/2016**	SeqNo: **996116** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **mb-24000**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24000**	RunNo: **32558**
Prep Date: **3/1/2016**	Analysis Date: **3/3/2016**	SeqNo: **996116** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	220		200.0		109	4.63	113			
Surr: Phenol-d5	210		200.0		105	4.13	124			
Surr: 2,4,6-Tribromophenol	130		200.0		64.6	5.14	132			
Surr: Nitrobenzene-d5	110		100.0		107	9.13	140			
Surr: 2-Fluorobiphenyl	110		100.0		114	10.8	132			
Surr: 4-Terphenyl-d14	100		100.0		101	12.9	107			

Sample ID **lcs-24000**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **24000**	RunNo: **32558**
Prep Date: **3/1/2016**	Analysis Date: **3/3/2016**	SeqNo: **996117** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	91	10	100.0	0	91.0	40.2	107			
4-Chloro-3-methylphenol	180	10	200.0	0	88.4	48.2	107			
2-Chlorophenol	180	10	200.0	0	88.7	42.5	106			
1,4-Dichlorobenzene	90	10	100.0	0	89.5	31.6	111			
2,4-Dinitrotoluene	79	10	100.0	0	78.7	33.6	86.5			
N-Nitrosodi-n-propylamine	89	10	100.0	0	88.9	44	106			
4-Nitrophenol	140	10	200.0	0	69.4	25.5	109			
Pentachlorophenol	110	20	200.0	0	55.8	38.8	97.8			
Phenol	190	10	200.0	0	93.2	22.7	116			
Pyrene	81	10	100.0	0	81.0	29.3	138			
1,2,4-Trichlorobenzene	98	10	100.0	0	97.7	35.3	123			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **lcs-24000**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **24000**	RunNo: **32558**
Prep Date: **3/1/2016**	Analysis Date: **3/3/2016**	SeqNo: **996117** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	170		200.0		86.6	4.63	113			
Surr: Phenol-d5	190		200.0		93.2	4.13	124			
Surr: 2,4,6-Tribromophenol	140		200.0		67.8	5.14	132			
Surr: Nitrobenzene-d5	91		100.0		91.0	9.13	140			
Surr: 2-Fluorobiphenyl	92		100.0		92.2	10.8	132			
Surr: 4-Terphenyl-d14	80		100.0		79.9	12.9	107			

Sample ID **1602b49-007cms**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **MKTF-1**	Batch ID: **24000**	RunNo: **32558**
Prep Date: **3/1/2016**	Analysis Date: **3/3/2016**	SeqNo: **996125** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	94	10	100.0	0	93.5	46.4	121			
4-Chloro-3-methylphenol	160	10	200.0	0	79.5	45.3	135			
2-Chlorophenol	160	10	200.0	0	82.2	23.9	133			
1,4-Dichlorobenzene	91	10	100.0	0	91.0	42.6	104			
2,4-Dinitrotoluene	84	10	100.0	0	83.8	28.9	126			
N-Nitrosodi-n-propylamine	91	10	100.0	0	91.1	49.2	117			
4-Nitrophenol	13	10	200.0	0	6.53	18.1	97.2			S
Pentachlorophenol	52	20	200.0	0	26.0	24.8	127			
Phenol	100	10	200.0	12.42	46.0	17.9	93.6			
Pyrene	82	10	100.0	0	81.5	29.6	142			
1,2,4-Trichlorobenzene	94	10	100.0	0	93.8	39.5	109			
Surr: 2-Fluorophenol	85		200.0		42.4	4.63	113			
Surr: Phenol-d5	84		200.0		42.0	4.13	124			
Surr: 2,4,6-Tribromophenol	140		200.0		69.0	5.14	132			
Surr: Nitrobenzene-d5	78		100.0		77.8	9.13	140			
Surr: 2-Fluorobiphenyl	93		100.0		92.5	10.8	132			
Surr: 4-Terphenyl-d14	62		100.0		62.1	12.9	107			

Sample ID **1602b49-007cmsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **MKTF-1**	Batch ID: **24000**	RunNo: **32558**
Prep Date: **3/1/2016**	Analysis Date: **3/3/2016**	SeqNo: **996126** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	74	10	100.0	0	74.2	25.5	126	23.1	31.3	
4-Chloro-3-methylphenol	130	10	200.0	0	64.4	26.6	138	20.9	29	
2-Chlorophenol	120	10	200.0	0	61.1	23.9	133	29.5	28.4	R
1,4-Dichlorobenzene	67	10	100.0	0	66.6	20.3	122	30.9	28.2	R
2,4-Dinitrotoluene	69	10	100.0	0	68.7	40	94.5	19.8	22.9	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1602B49**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **1602b49-007cmsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **MKTF-1**	Batch ID: **24000**	RunNo: **32558**
Prep Date: **3/1/2016**	Analysis Date: **3/3/2016**	SeqNo: **996126** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Nitrosodi-n-propylamine	72	10	100.0	0	72.1	25.9	131	23.3	28.8	
4-Nitrophenol	18	10	200.0	0	8.84	17.2	88.9	30.1	41.5	S
Pentachlorophenol	63	20	200.0	0	31.4	13.6	123	18.7	45.1	
Phenol	77	10	200.0	12.42	32.2	20.7	100	30.5	33.9	
Pyrene	70	10	100.0	0	69.6	21.8	129	15.8	33.6	
1,2,4-Trichlorobenzene	65	10	100.0	0	64.5	22	130	37.0	28.2	R
Surr: 2-Fluorophenol	71		200.0		35.6	4.63	113	0	0	
Surr: Phenol-d5	61		200.0		30.5	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	120		200.0		62.0	5.14	132	0	0	
Surr: Nitrobenzene-d5	60		100.0		60.3	9.13	140	0	0	
Surr: 2-Fluorobiphenyl	70		100.0		70.2	10.8	132	0	0	
Surr: 4-Terphenyl-d14	54		100.0		53.6	12.9	107	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1602B49** RcptNo: 1

Received by/date: JA 02/26/16

Logged By: **Ashley Gallegos** 2/26/2016 4:15:00 PM AG

Completed By: **Ashley Gallegos** 2/29/2016 9:38:15 AM AG

Reviewed By: JA 02/29/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 4/5

(<2 or >12 unless noted)

Adjusted? NO

Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1602849	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cation/Anio	WQCC Metals	Total & Dissolved		Air Bubbles (Y or N)
2/25/16	1440	WATER	MKTF-19	40 ML VOA-6	HCL	-001			✓							✓						
				1 LITER AMBER-1	NEAT												✓					
				250 ML AMBER-1	NEAT				✓													
				125 ML PLASTIC-1	HNO_3													✓	✓			
				125 ML PLASTIC-1	H_2SO_4													✓				
				500 ML PLASTIC-1	HNO_3														✓			
				500 ML PLASTIC-1	NEAT														✓			
2/25/16	1540	WATER	MKTF-34	40 ML VOA-6	HCL	-002			✓							✓						
				1 LITER AMBER-1	NEAT												✓					
				250 ML AMBER-1	NEAT				✓													
				125 ML PLASTIC-1	HNO_3													✓	✓			
				125 ML PLASTIC-1	H_2SO_4													✓				

Date: 2/26/16 Time: 1740 Relinquished by: [signature]
Received by: [signature] Date: 2/26/16 Time: 200

Date: 2/26/16 Time: 1615 Relinquished by: [signature]
Received by: [signature] Date: 02/26/16 Time: 1615

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package:
☐ Standard ☒ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
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4901 Hawkins NE - Albuquerque, NM 87109
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Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1602B49	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	WQCC METALS (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
2/5/16	1540	WATER	MKTF-34	500 mL PLASTIC-1	HNO_3	-002												✓			
↓	↓	↓	↓	500 mL PLASTIC-1	NEAT													✓			
—	—	WATER	TRIP BLANK	40 mL VOA-4	HCL	-003										✓					

Date:	Time:	Relinquished by:	Received by:	Date	Time
2/6/16	0740			2/6/16	200
2/6/16	1615		Jodi Cooper	02/26/16	1615

Remarks:

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QA/QC Package:
☐ Standard ☒ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

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4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1602B50	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS (TOTAL & DISSOLVED)	Air Bubbles (Y or N)
2/24/16	1550	WATER	MKTF-32	40 ML VOA 6	HCL	-004			✓							✓				
				1 L AMBER 1	NEAT												✓			
				250 ML AMBER-1	NEAT				✓											
				125 ML PLASTIC-1	HNO_3													✓	✓	
				125 ML PLASTIC-1	H_2SO_4													✓		
				500 ML PLASTIC-1	HNO_3														✓	
				500 ML PLASTIC-1	NEAT														✓	
2/24/16	1650	WATER	MKTF-41	40 ML VOA 6	HCL	-005			✓							✓				
				1 L AMBER 1	NEAT												✓			
				250 ML AMBER-1	NEAT				✓											
				125 ML PLASTIC-1	HNO_3													✓	✓	
				125 ML PLASTIC-1	H_2SO_4													✓		

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time
2/25/16	0740			2/24/16	2100
2/24/16	1715			02/26/16	1615

Remarks:

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Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package:
☐ Standard ☒ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

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Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 49 1602650	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	WQCC METALS (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
2/24/16	1650	WATER	MKTF-41	500 ML PLASTIC-1	HNO_3	-0025												✓			
↓	↓	↓	↓	500 ML PLASTIC-1	NEAT													✓			
—	—	WATER	TRIP BLANK	40 ML VOA-3	HCL	-0026										✓					

Date:	Time:	Relinquished by:	Received by:	Date	Time
2/26/16	0740			2/26/16	200
Date:	Time:	Relinquished by:	Received by:	Date	Time
2/29/16	1115			02/29/16	1615

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package:
☐ Standard ☒ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

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Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1602B49
2/24/16	1010	WATER	MKTF-1	40 ML VOA-6	HCL	-007
				1 LITER AMBER-2	NEAT	
				250 ML AMBER-1	NEAT	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	HNO_3	
				500ML PLASTIC-1	NEAT	
2/24/16	1135	WATER	MKTF-2	40 ML VOA-6	HCL	-008
				1 LITER AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				125 ML PLASTIC-1	HNO_3	
				125ML PLASTIC-1	H_2SO_4	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations/Anions	WQCC Metals	(Total & Dissolved)		Air Bubbles (Y or N)
		✓							✓						
										✓					
		✓													
											✓	✓			
											✓				
												✓			
												✓			
		✓							✓						
										✓					
		✓													
											✓	✓			
											✓				

Date: 2/26/16 Time: 0740 Relinquished by:
Received by: Date 2/26/16 Time 200

Date: 2/26/16 Time: 1615 Relinquished by:
Received by: 02/26/16 1615

Remarks:

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Client: WESTERN REFINING SW, INC.
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GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL-JOHNSON@WNR.COM
QA/QC Package:
☐ Standard ☒ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
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4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1602B49	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations/Anions	WQCC Metals (Total & Dissolved)		Air Bubbles (Y or N)
2/4/16	1135	WATER	MKTF-2	500 ML PLASTIC-1	HNO_3	-008													✓		
↓	↓	↓	↓	500 ML PLASTIC-1	NEAT														✓		
2/4/16	1245	WATER	MKTF-44	40 ML VOA-6	HCL	-009			✓							✓					
				1 LITER AMBER-1	NEAT												✓				
				250 ML AMBER-1	NEAT				✓												
				125 ML PLASTIC-1	HNO_3												✓	✓	✓		
				125 ML PLASTIC-1	H_2SO_4													✓			
				500 ML PLASTIC-1	HNO_3														✓		
↓	↓	↓	↓	500 ML PLASTIC-1	NEAT														✓		
—	—	WATER	TRIP BLANK	40 ML VOA-3	HCL	-010										✓					

Date: 2/6/16 Time: 0740 Relinquished by:
Received by: Date: 2/4/16 Time: 200

Date: 2/6/16 Time: 1615 Relinquished by:
Received by: Date: 02/26/16 Time: 1615

Remarks:

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Client: WESTERN REFINING SW, INC.
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Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package:
☐ Standard ☒ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1602B49	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cation/Anion	WQCC Metals	(Total & Dissolved)		Air Bubbles (Y or N)
2/5/16	0940	WATER	MKTF-23	40 mL VOA-6	HCL	-011			✓							✓						
				1 LITER AMBER-2	NEAT												✓					
				250 mL AMBER-1	NEAT				✓													
				125 mL PLASTIC-1	HNO_3													✓	✓			
				125 mL PLASTIC-1	H_2SO_4													✓				
				500 mL PLASTIC-1	HNO_3														✓			
				500 mL PLASTIC-1	NEAT														✓			
2/5/16	1055	WATER	MKTF-22	40 mL VOA-6	HCL	-012			✓							✓						
				1 LITER AMBER-1	NEAT												✓					
				250 mL AMBER-1	NEAT				✓													
				125 mL PLASTIC-1	HNO_3													✓	✓			
				125 mL PLASTIC-1	H_2SO_4													✓				

Date:	Time:	Relinquished by:	Received by:	Date	Time
2/6/16	0740			2/5/16	2000
2/6/16	1615			02/26/16	1615

Remarks:

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Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: WESTERN REFINING SW, INC. GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING ROAD GALLUP, NM 87301

Phone #: 505-722-0231

email or Fax#: CHERYL.JOHNSON@WNR.COM

QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)

Accreditation: ☐ NELAP ☐ Other

EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: QUARTERLY GW SAMPLING

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1602B49
2/5/16	1055	WATER	MKTF-22	500 ML PLASTIC-1	HNO_3	-0132
↓	↓	↓	↓	500 ML PLASTIC-1	NEAT	
2/5/16	1155	WATER	MKTF-33	40 ML VOA-6	HCL	-0143
				1 LITER AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	HNO_3	
↓	↓	↓	↓	500 ML PLASTIC-1	NEAT	
—	—	WATER	TRIP BLANK	40 ML VOA-4	HCL	-0154

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations/Anions	WQCC Metals	(Total & Dissolved)		Air Bubbles (Y or N)
												✓			
												✓			
		✓							✓						
										✓					
		✓													
											✓	✓			
											✓				
												✓			
												✓			
									✓						

Date: 2/26/16 Time: 0740 Relinquished by: [signature]

Received by: [signature] Date: 2/26/16 Time: 200

Date: 2/26/16 Time: 1615 Relinquished by: [signature]

Received by: [signature] Date: 02/26/16 Time: 1615

Remarks:

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Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

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Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1602B49	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations/Anions	WQCC Metals	Total & Dissolved		Air Bubbles (Y or N)
2/6/16	0930	WATER	MKTF-17	40 ML VOA-6	HCL	-01105			✓							✓						
				1 LITER AMBER-2	NEAT												✓					
				250 ML AMBER-1	NEAT				✓													
				125 ML PLASTIC-1	HNO_3													✓	✓			
				125 ML PLASTIC-1	H_2SO_4													✓				
				500 ML PLASTIC-1	HNO_3														✓			
				500 ML PLASTIC-1	NEAT														✓			
2/6/16	1200	WATER	MKTF-35	40 ML VOA-6	HCL	-01716			✓							✓						
				1 LITER AMBER-1	NEAT												✓					
				250 ML AMBER-1	NEAT				✓													
				125 ML PLASTIC-1	HNO_3													✓	✓			
				125 ML PLASTIC-1	H_2SO_4													✓				

Date: 2/6/16 Time: 1400 Relinquished by:
Received by: Date: 2/6/16 Time: 2:15

Date: 2/6/16 Time: 4:15 Relinquished by:
Received by: Date: 02/26/16 Time: 1615

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package:
☐ Standard ☒ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

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Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1602B49	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations/Anions	WQCC Metals	Total & Dissolved		Air Bubbles (Y or N)
2/9/16	1200	WATER	MKTF-35	500 ML PLASTIC-1	HNO_3	-0176													✓			
			↓	500 ML PLASTIC-1	NEAT														✓			
2/9/16	1330	WATER	MKTF-18	40 ML VOA-6	HCL	-0187			✓							✓						
↓	↓	↓	↓	1 LITER AMBER-1	NEAT												✓					
				250 ML AMBER-1	NEAT				✓													
				125 ML PLASTIC-1	HNO_3													✓	✓			
				125 ML PLASTIC-1	H_2SO_4													✓				
				500 ML PLASTIC-1	HNO_3														✓			
↓	↓	↓	↓	500 ML PLASTIC-1	NEAT														✓			
—	—	WATER	TRIP BLANK	40 ML VOA-4	HCL	-0188										✓						

Analysis Request

Date	Time	Relinquished by:	Received by:	Date	Time
2/9/16	1400			2/9/16	2:15
2/9/16	1425			02/20/16	1615

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package:
☐ Standard ☒ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1602B49
2/24/16	1340	WATER	MKTF-43	40 ML VOA-6	HCL	-02019
				1 LITER AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	HNO_3	
				500 ML PLASTIC-1	NEAT	
2/24/16	1450	WATER	MKTF-42	40 ML VOA-6	HCL	-020
				1 LITER AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)	Air Bubbles (Y or N)
		✓							✓					
										✓				
		✓												
											✓	✓		
											✓			
												✓		
												✓		
		✓							✓					
										✓				
		✓												
											✓	✓		
											✓			

Date: 2/26/16 Time: 0740 Relinquished by:
Received by: Date 2/24/16 Time 200

Date: 2/26/16 Time: 1515 Relinquished by:
Received by: Date 2/26/16 Time 1615

Remarks:

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GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

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Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1602B49
2/4/16	1450	WATER	MKTF-42	500 ML PLASTIC-1	HNO_3	-020
↓	↓	↓	↓	500 ML PLASTIC-1	NEAT	
—	—	WATER	TRIP BLANK	40 ML VOA-3	HCL	-021

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)		Air Bubbles (Y or N)
												✓			
												✓			
									✓						

Date:	Time:	Relinquished by:	Received by:	Date	Time
2/5/16	0740			2/5/16	200
2/5/16	1615			02/20/16	1615

Remarks:

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HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

April 01, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: Quarterly GW Sampling OrderNo.: 1603069

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 3/1/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-4
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 9:30:00 AM
Lab ID: 1603069-001 **Matrix:** AQUEOUS **Received Date:** 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	3.6	0.69	1.0		mg/L	1	3/3/2016 2:12:32 PM	24027
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/3/2016 2:12:32 PM	24027
Surr: DNOP	90.0	0	70-141		%Rec	1	3/3/2016 2:12:32 PM	24027
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	9.2	0.25	0.50		mg/L	10	3/3/2016 8:24:08 PM	A32557
Surr: BFB	115	0	49.5-130		%Rec	10	3/3/2016 8:24:08 PM	A32557
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	0.97	0.11	0.50		mg/L	5	3/4/2016 6:59:16 PM	R32618
Chloride	250	0.55	10		mg/L	20	3/4/2016 7:11:41 PM	R32618
Bromide	2.8	0.16	0.50		mg/L	5	3/4/2016 6:59:16 PM	R32618
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5	H	mg/L	5	3/4/2016 6:59:16 PM	R32618
Sulfate	3.2	0.32	2.5		mg/L	5	3/4/2016 6:59:16 PM	R32618
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	3/3/2016 11:16:54 AM	a32571
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	2.8	0.0066	0.010	*	mg/L	5	3/18/2016 12:05:49 PM	B32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/16/2016 2:19:22 PM	C32831
Calcium	120	1.3	5.0		mg/L	5	3/18/2016 12:05:49 PM	B32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/16/2016 2:19:22 PM	C32831
Copper	ND	0.0040	0.0060		mg/L	1	3/16/2016 2:19:22 PM	C32831
Iron	5.6	0.091	0.20	*	mg/L	10	3/18/2016 12:43:58 PM	B32891
Magnesium	29	0.013	1.0		mg/L	1	3/16/2016 2:19:22 PM	C32831
Manganese	1.5	0.0016	0.010	*	mg/L	5	3/18/2016 12:05:49 PM	B32891
Potassium	0.94	0.18	1.0	J	mg/L	1	3/16/2016 2:19:22 PM	C32831
Silver	ND	0.0028	0.0050		mg/L	1	3/16/2016 2:19:22 PM	C32831
Sodium	360	0.48	5.0		mg/L	5	3/18/2016 12:05:49 PM	B32891
Zinc	0.022	0.0028	0.010		mg/L	1	3/16/2016 2:19:22 PM	C32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	3.0	0.0053	0.010	*	mg/L	5	3/14/2016 2:25:02 PM	24115
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 4:03:43 PM	24115
Chromium	ND	0.0022	0.0060		mg/L	1	3/11/2016 4:03:43 PM	24115
Copper	ND	0.0051	0.0060		mg/L	1	3/14/2016 2:10:47 PM	24115
Iron	9.7	0.36	1.0	*	mg/L	50	3/16/2016 4:33:19 PM	24115
Manganese	1.5	0.0076	0.010	*	mg/L	5	3/14/2016 2:25:02 PM	24115
Silver	ND	0.0021	0.0050		mg/L	1	3/25/2016 8:03:58 AM	24413
Zinc	0.011	0.0039	0.010		mg/L	1	3/14/2016 2:10:47 PM	24115
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0085	0.000065	0.0010		mg/L	1	3/15/2016 6:16:35 PM	C32805

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-4
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 9:30:00 AM
Lab ID: 1603069-001
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.000044	0.000026	0.00050	J	mg/L	1	3/15/2016 6:16:35 PM	C32805
Selenium	0.0061	0.0019	0.010	J	mg/L	10	3/24/2016 4:48:57 PM	B33051
Uranium	0.0053	0.0000048	0.00050		mg/L	1	3/15/2016 6:16:35 PM	C32805
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0081	0.0015	0.0050		mg/L	5	3/14/2016 5:35:45 PM	24115
Lead	0.0036	0.00024	0.0025		mg/L	5	3/14/2016 4:26:58 PM	24115
Selenium	0.0043	0.00062	0.0050	J	mg/L	5	3/14/2016 5:35:45 PM	24115
Uranium	0.0042	0.000025	0.0025		mg/L	5	3/14/2016 4:26:58 PM	24115
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/8/2016 11:05:28 AM	24112
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Aniline	ND	9.8	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/4/2016 3:43:52 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/4/2016 3:43:52 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Carbazole	26	7.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/4/2016 3:43:52 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/4/2016 3:43:52 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/4/2016 3:43:52 PM	24000

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Collection Date: 2/29/2016 9:30:00 AM
Lab ID: 1603069-001 **Matrix:** AQUEOUS **Received Date:** 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/4/2016 3:43:52 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/4/2016 3:43:52 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/4/2016 3:43:52 PM	24000
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/4/2016 3:43:52 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/4/2016 3:43:52 PM	24000
2,4-Dimethylphenol	8.0	4.7	10	J	µg/L	1	3/4/2016 3:43:52 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/4/2016 3:43:52 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/4/2016 3:43:52 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/4/2016 3:43:52 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Fluorene	7.5	7.2	10	J	µg/L	1	3/4/2016 3:43:52 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
1-Methylnaphthalene	170	6.8	10		µg/L	1	3/4/2016 3:43:52 PM	24000
2-Methylnaphthalene	190	7.0	10		µg/L	1	3/4/2016 3:43:52 PM	24000
2-Methylphenol	ND	8.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/4/2016 3:43:52 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Naphthalene	330	30	50		µg/L	5	3/13/2016 12:41:18 AM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/4/2016 3:43:52 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/4/2016 3:43:52 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/4/2016 3:43:52 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/4/2016 3:43:52 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/4/2016 3:43:52 PM	24000
Phenanthrene	8.6	6.8	10	J	µg/L	1	3/4/2016 3:43:52 PM	24000
Phenol	ND	5.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000

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Project: Quarterly GW Sampling
Collection Date: 2/29/2016 9:30:00 AM
Lab ID: 1603069-001 **Matrix:** AQUEOUS **Received Date:** 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/4/2016 3:43:52 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/4/2016 3:43:52 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Surr: 2-Fluorophenol	69.0	0	4.63-113		%Rec	1	3/4/2016 3:43:52 PM	24000
Surr: Phenol-d5	52.8	0	4.13-124		%Rec	1	3/4/2016 3:43:52 PM	24000
Surr: 2,4,6-Tribromophenol	103	0	5.14-132		%Rec	1	3/4/2016 3:43:52 PM	24000
Surr: Nitrobenzene-d5	106	0	9.13-140		%Rec	1	3/4/2016 3:43:52 PM	24000
Surr: 2-Fluorobiphenyl	126	0	10.8-132		%Rec	1	3/4/2016 3:43:52 PM	24000
Surr: 4-Terphenyl-d14	103	0	12.9-107		%Rec	1	3/4/2016 3:43:52 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	800	4.8	50		µg/L	50	3/4/2016 5:33:47 PM	R32609
Toluene	17	0.45	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Ethylbenzene	730	5.6	50		µg/L	50	3/4/2016 5:33:47 PM	R32609
Methyl tert-butyl ether (MTBE)	2200	11	50		µg/L	50	3/4/2016 5:33:47 PM	R32609
1,2,4-Trimethylbenzene	370	0.52	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,3,5-Trimethylbenzene	58	0.58	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,2-Dichloroethane (EDC)	1.6	0.26	5.0	J	µg/L	5	3/4/2016 6:02:26 PM	R32609
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Naphthalene	340	4.2	100		µg/L	50	3/4/2016 5:33:47 PM	R32609
1-Methylnaphthalene	180	1.0	20		µg/L	5	3/4/2016 6:02:26 PM	R32609
2-Methylnaphthalene	180	0.79	20		µg/L	5	3/4/2016 6:02:26 PM	R32609
Acetone	27	4.4	50	J	µg/L	5	3/4/2016 6:02:26 PM	R32609
Bromobenzene	ND	0.40	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Bromoform	ND	0.51	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Bromomethane	ND	3.9	15		µg/L	5	3/4/2016 6:02:26 PM	R32609
2-Butanone	11	1.6	50	J	µg/L	5	3/4/2016 6:02:26 PM	R32609
Carbon disulfide	ND	3.0	50		µg/L	5	3/4/2016 6:02:26 PM	R32609
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Chloroethane	ND	0.73	10		µg/L	5	3/4/2016 6:02:26 PM	R32609
Chloroform	ND	0.44	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Chloromethane	ND	1.1	15		µg/L	5	3/4/2016 6:02:26 PM	R32609
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
cis-1,2-DCE	5.5	0.62	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-4
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 9:30:00 AM
Lab ID: 1603069-001 **Matrix:** AQUEOUS **Received Date:** 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/4/2016 6:02:26 PM	R32609
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Dibromomethane	ND	0.60	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,1-Dichloroethane	5.9	0.54	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,1-Dichloroethene	14	0.38	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
2-Hexanone	ND	1.8	50		µg/L	5	3/4/2016 6:02:26 PM	R32609
Isopropylbenzene	25	0.49	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
4-Isopropyltoluene	3.8	0.70	5.0	J	µg/L	5	3/4/2016 6:02:26 PM	R32609
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/4/2016 6:02:26 PM	R32609
Methylene Chloride	ND	0.31	15		µg/L	5	3/4/2016 6:02:26 PM	R32609
n-Butylbenzene	6.4	0.80	15	J	µg/L	5	3/4/2016 6:02:26 PM	R32609
n-Propylbenzene	52	0.66	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
sec-Butylbenzene	4.1	0.54	5.0	J	µg/L	5	3/4/2016 6:02:26 PM	R32609
Styrene	0.67	0.48	5.0	J	µg/L	5	3/4/2016 6:02:26 PM	R32609
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/4/2016 6:02:26 PM	R32609
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/4/2016 6:02:26 PM	R32609
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Xylenes, Total	800	1.6	7.5		µg/L	5	3/4/2016 6:02:26 PM	R32609
Surr: 1,2-Dichloroethane-d4	92.8	0	70-130		%Rec	5	3/4/2016 6:02:26 PM	R32609

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Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-4
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 9:30:00 AM
Lab ID: 1603069-001
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	80.6	0	70-130		%Rec	5	3/4/2016 6:02:26 PM	R32609
Surr: Dibromofluoromethane	103	0	70-130		%Rec	5	3/4/2016 6:02:26 PM	R32609
Surr: Toluene-d8	97.3	0	70-130		%Rec	5	3/4/2016 6:02:26 PM	R32609

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-11
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 10:50:00 AM
Lab ID: 1603069-002 **Matrix:** AQUEOUS **Received Date:** 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	1.5	0.69	1.0		mg/L	1	3/3/2016 3:17:06 PM	24027
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/3/2016 3:17:06 PM	24027
Surr: DNOP	94.7	0	70-141		%Rec	1	3/3/2016 3:17:06 PM	24027
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	42	1.3	2.5		mg/L	50	3/3/2016 8:48:33 PM	A32557
Surr: BFB	99.1	0	49.5-130		%Rec	50	3/3/2016 8:48:33 PM	A32557
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	ND	0.11	0.50		mg/L	5	3/4/2016 7:24:05 PM	R32618
Chloride	1600	2.7	50		mg/L	100	3/11/2016 4:47:21 AM	R32710
Bromide	3.4	0.16	0.50		mg/L	5	3/4/2016 7:24:05 PM	R32618
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5	H	mg/L	5	3/4/2016 7:24:05 PM	R32618
Sulfate	0.58	0.32	2.5	J	mg/L	5	3/4/2016 7:24:05 PM	R32618
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	3/3/2016 11:54:08 AM	a32571
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	3.6	0.013	0.020	*	mg/L	10	3/18/2016 12:07:48 PM	B32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/16/2016 2:21:02 PM	C32831
Calcium	240	2.6	10		mg/L	10	3/18/2016 12:07:48 PM	B32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/16/2016 2:21:02 PM	C32831
Copper	ND	0.0040	0.0060		mg/L	1	3/16/2016 2:21:02 PM	C32831
Iron	8.0	0.091	0.20	*	mg/L	10	3/18/2016 12:07:48 PM	B32891
Magnesium	67	0.013	1.0		mg/L	1	3/16/2016 2:21:02 PM	C32831
Manganese	5.7	0.0032	0.020	*	mg/L	10	3/18/2016 12:07:48 PM	B32891
Potassium	1.5	0.18	1.0		mg/L	1	3/16/2016 2:21:02 PM	C32831
Silver	ND	0.0028	0.0050		mg/L	1	3/16/2016 2:21:02 PM	C32831
Sodium	880	0.96	10		mg/L	10	3/18/2016 12:07:48 PM	B32891
Zinc	0.011	0.0028	0.010		mg/L	1	3/16/2016 2:21:02 PM	C32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	3.9	0.0053	0.010	*	mg/L	5	3/15/2016 11:11:05 AM	24115
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 4:09:03 PM	24115
Chromium	ND	0.0022	0.0060		mg/L	1	3/11/2016 4:09:03 PM	24115
Copper	ND	0.0051	0.0060		mg/L	1	3/15/2016 10:59:46 AM	24115
Iron	11	0.14	0.40	*	mg/L	20	3/15/2016 11:16:05 AM	24115
Manganese	6.4	0.030	0.040	*	mg/L	20	3/15/2016 11:16:05 AM	24115
Silver	ND	0.0021	0.0050		mg/L	1	3/11/2016 4:09:03 PM	24115
Zinc	0.018	0.0039	0.010		mg/L	1	3/15/2016 10:59:46 AM	24115
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.015	0.00032	0.0050	*	mg/L	5	3/22/2016 8:19:44 PM	C32978

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Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-11
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 10:50:00 AM
Lab ID: 1603069-002 **Matrix:** AQUEOUS **Received Date:** 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00031	0.00013	0.0025	J	mg/L	5	3/22/2016 8:19:44 PM	C32978
Selenium	0.0046	0.00097	0.0050	J	mg/L	5	3/22/2016 8:19:44 PM	C32978
Uranium	0.0050	0.000024	0.0025		mg/L	5	3/22/2016 8:19:44 PM	C32978
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.013	0.0015	0.0050	*	mg/L	5	3/14/2016 5:38:46 PM	24115
Lead	0.0027	0.00024	0.0025		mg/L	5	3/14/2016 4:29:58 PM	24115
Selenium	0.0021	0.00062	0.0050	J	mg/L	5	3/14/2016 5:38:46 PM	24115
Uranium	0.0054	0.000025	0.0025		mg/L	5	3/14/2016 4:29:58 PM	24115
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/8/2016 11:07:31 AM	24112
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Aniline	11	9.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/4/2016 4:14:26 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/4/2016 4:14:26 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Carbazole	ND	7.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/4/2016 4:14:26 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/4/2016 4:14:26 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/4/2016 4:14:26 PM	24000

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-11
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 10:50:00 AM
Lab ID: 1603069-002
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/4/2016 4:14:26 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/4/2016 4:14:26 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/4/2016 4:14:26 PM	24000
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/4/2016 4:14:26 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/4/2016 4:14:26 PM	24000
2,4-Dimethylphenol	18	4.7	10		µg/L	1	3/4/2016 4:14:26 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/4/2016 4:14:26 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/4/2016 4:14:26 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/4/2016 4:14:26 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Fluorene	ND	7.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
1-Methylnaphthalene	14	6.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
2-Methylnaphthalene	11	7.0	10		µg/L	1	3/4/2016 4:14:26 PM	24000
2-Methylphenol	84	8.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
3+4-Methylphenol	49	7.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Naphthalene	38	5.9	10		µg/L	1	3/4/2016 4:14:26 PM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/4/2016 4:14:26 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/4/2016 4:14:26 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/4/2016 4:14:26 PM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Phenol	29	5.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-11
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 10:50:00 AM
Lab ID: 1603069-002 **Matrix:** AQUEOUS **Received Date:** 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/4/2016 4:14:26 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/4/2016 4:14:26 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Surr: 2-Fluorophenol	30.2	0	4.63-113		%Rec	1	3/4/2016 4:14:26 PM	24000
Surr: Phenol-d5	34.2	0	4.13-124		%Rec	1	3/4/2016 4:14:26 PM	24000
Surr: 2,4,6-Tribromophenol	52.9	0	5.14-132		%Rec	1	3/4/2016 4:14:26 PM	24000
Surr: Nitrobenzene-d5	76.3	0	9.13-140		%Rec	1	3/4/2016 4:14:26 PM	24000
Surr: 2-Fluorobiphenyl	76.2	0	10.8-132		%Rec	1	3/4/2016 4:14:26 PM	24000
Surr: 4-Terphenyl-d14	65.2	0	12.9-107		%Rec	1	3/4/2016 4:14:26 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	5100	9.6	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Toluene	6400	8.9	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Ethylbenzene	670	11	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Methyl tert-butyl ether (MTBE)	120	21	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,2,4-Trimethylbenzene	310	10	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,3,5-Trimethylbenzene	59	12	100	J	µg/L	100	3/4/2016 7:00:12 PM	R32609
1,2-Dichloroethane (EDC)	ND	5.3	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,2-Dibromoethane (EDB)	ND	11	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Naphthalene	62	8.3	200	J	µg/L	100	3/4/2016 7:00:12 PM	R32609
1-Methylnaphthalene	48	20	400	J	µg/L	100	3/4/2016 7:00:12 PM	R32609
2-Methylnaphthalene	48	16	400	J	µg/L	100	3/4/2016 7:00:12 PM	R32609
Acetone	ND	88	1000		µg/L	100	3/4/2016 7:00:12 PM	R32609
Bromobenzene	ND	8.0	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Bromodichloromethane	ND	9.8	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Bromoform	ND	10	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Bromomethane	ND	78	300		µg/L	100	3/4/2016 7:00:12 PM	R32609
2-Butanone	ND	32	1000		µg/L	100	3/4/2016 7:00:12 PM	R32609
Carbon disulfide	ND	60	1000		µg/L	100	3/4/2016 7:00:12 PM	R32609
Carbon Tetrachloride	ND	11	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Chlorobenzene	ND	10	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Chloroethane	ND	15	200		µg/L	100	3/4/2016 7:00:12 PM	R32609
Chloroform	ND	8.9	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Chloromethane	ND	21	300		µg/L	100	3/4/2016 7:00:12 PM	R32609
2-Chlorotoluene	ND	40	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
4-Chlorotoluene	ND	13	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
cis-1,2-DCE	ND	12	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
cis-1,3-Dichloropropene	ND	10	100		µg/L	100	3/4/2016 7:00:12 PM	R32609

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-11
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 10:50:00 AM
Lab ID: 1603069-002 **Matrix:** AQUEOUS **Received Date:** 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	15	200		µg/L	100	3/4/2016 7:00:12 PM	R32609
Dibromochloromethane	ND	8.7	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Dibromomethane	ND	12	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,2-Dichlorobenzene	ND	40	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,3-Dichlorobenzene	ND	14	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,4-Dichlorobenzene	ND	14	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Dichlorodifluoromethane	ND	32	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,1-Dichloroethane	60	11	100	J	µg/L	100	3/4/2016 7:00:12 PM	R32609
1,1-Dichloroethene	ND	7.6	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,2-Dichloropropane	ND	4.7	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,3-Dichloropropane	ND	16	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
2,2-Dichloropropane	ND	12	200		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,1-Dichloropropene	ND	13	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Hexachlorobutadiene	ND	20	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
2-Hexanone	ND	36	1000		µg/L	100	3/4/2016 7:00:12 PM	R32609
Isopropylbenzene	ND	9.8	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
4-Isopropyltoluene	ND	14	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
4-Methyl-2-pentanone	ND	15	1000		µg/L	100	3/4/2016 7:00:12 PM	R32609
Methylene Chloride	28	6.3	300	J	µg/L	100	3/4/2016 7:00:12 PM	R32609
n-Butylbenzene	ND	16	300		µg/L	100	3/4/2016 7:00:12 PM	R32609
n-Propylbenzene	58	13	100	J	µg/L	100	3/4/2016 7:00:12 PM	R32609
sec-Butylbenzene	ND	11	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Styrene	ND	9.5	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
tert-Butylbenzene	ND	9.6	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,1,1,2-Tetrachloroethane	ND	11	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,1,2,2-Tetrachloroethane	ND	11	200		µg/L	100	3/4/2016 7:00:12 PM	R32609
Tetrachloroethene (PCE)	ND	15	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
trans-1,2-DCE	ND	40	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
trans-1,3-Dichloropropene	ND	8.5	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,2,3-Trichlorobenzene	ND	11	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,2,4-Trichlorobenzene	ND	13	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,1,1-Trichloroethane	ND	6.3	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,1,2-Trichloroethane	ND	7.7	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Trichloroethene (TCE)	ND	18	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Trichlorofluoromethane	ND	8.8	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,2,3-Trichloropropane	ND	11	200		µg/L	100	3/4/2016 7:00:12 PM	R32609
Vinyl chloride	49	6.3	100	J	µg/L	100	3/4/2016 7:00:12 PM	R32609
Xylenes, Total	2200	32	150		µg/L	100	3/4/2016 7:00:12 PM	R32609
Surr: 1,2-Dichloroethane-d4	91.0	0	70-130		%Rec	100	3/4/2016 7:00:12 PM	R32609

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-11
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 10:50:00 AM
Lab ID: 1603069-002
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	96.9	0	70-130		%Rec	100	3/4/2016 7:00:12 PM	R32609
Surr: Dibromofluoromethane	103	0	70-130		%Rec	100	3/4/2016 7:00:12 PM	R32609
Surr: Toluene-d8	93.8	0	70-130		%Rec	100	3/4/2016 7:00:12 PM	R32609

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-09
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 1:30:00 PM
Lab ID: 1603069-003
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	2.5	0.69	1.0		mg/L	1	3/3/2016 3:38:39 PM	24027
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/3/2016 3:38:39 PM	24027
Surr: DNOP	92.2	0	70-141		%Rec	1	3/3/2016 3:38:39 PM	24027
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	7.4	0.51	1.0		mg/L	20	3/3/2016 9:12:57 PM	A32557
Surr: BFB	93.8	0	49.5-130		%Rec	20	3/3/2016 9:12:57 PM	A32557
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	0.47	0.023	0.10		mg/L	1	3/4/2016 7:48:55 PM	R32618
Chloride	170	0.55	10		mg/L	20	3/4/2016 8:01:19 PM	R32618
Bromide	0.94	0.032	0.10		mg/L	1	3/4/2016 7:48:55 PM	R32618
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	3/4/2016 7:48:55 PM	R32618
Sulfate	70	1.3	10		mg/L	20	3/4/2016 8:01:19 PM	R32618
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	3/3/2016 12:06:32 PM	a32571
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.55	0.0013	0.0020		mg/L	1	3/16/2016 2:22:44 PM	C32831
Cadmium	ND	0.00075	0.0020		mg/L	1	3/16/2016 2:22:44 PM	C32831
Calcium	150	1.3	5.0		mg/L	5	3/18/2016 12:09:46 PM	B32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/16/2016 2:22:44 PM	C32831
Copper	ND	0.0040	0.0060		mg/L	1	3/16/2016 2:22:44 PM	C32831
Iron	2.8	0.045	0.10	*	mg/L	5	3/18/2016 12:09:46 PM	B32891
Magnesium	31	0.013	1.0		mg/L	1	3/16/2016 2:22:44 PM	C32831
Manganese	3.9	0.0016	0.010	*	mg/L	5	3/18/2016 12:09:46 PM	B32891
Potassium	0.67	0.18	1.0	J	mg/L	1	3/16/2016 2:22:44 PM	C32831
Silver	ND	0.0028	0.0050		mg/L	1	3/16/2016 2:22:44 PM	C32831
Sodium	240	0.48	5.0		mg/L	5	3/18/2016 12:09:46 PM	B32891
Zinc	0.0087	0.0028	0.010	J	mg/L	1	3/16/2016 2:22:44 PM	C32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.64	0.0011	0.0020		mg/L	1	3/11/2016 4:23:08 PM	24115
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 4:23:08 PM	24115
Chromium	ND	0.0022	0.0060		mg/L	1	3/11/2016 4:23:08 PM	24115
Copper	ND	0.0051	0.0060		mg/L	1	3/15/2016 11:18:02 AM	24115
Iron	4.0	0.036	0.10	*	mg/L	5	3/15/2016 11:19:42 AM	24115
Manganese	4.2	0.0076	0.010	*	mg/L	5	3/15/2016 11:19:42 AM	24115
Silver	ND	0.0021	0.0050		mg/L	1	3/11/2016 4:23:08 PM	24115
Zinc	0.012	0.0039	0.010		mg/L	1	3/15/2016 11:18:02 AM	24115
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0022	0.000065	0.0010		mg/L	1	3/15/2016 6:22:42 PM	C32805

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-09
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 1:30:00 PM
Lab ID: 1603069-003
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00021	0.000026	0.00050	J	mg/L	1	3/15/2016 6:22:42 PM	C32805
Selenium	0.0031	0.00019	0.0010		mg/L	1	3/15/2016 6:22:42 PM	C32805
Uranium	0.0047	0.0000048	0.00050		mg/L	1	3/15/2016 6:22:42 PM	C32805
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0020	0.0015	0.0050	J	mg/L	5	3/14/2016 5:41:47 PM	24115
Lead	0.0040	0.00024	0.0025		mg/L	5	3/14/2016 4:32:59 PM	24115
Selenium	0.0023	0.00062	0.0050	J	mg/L	5	3/14/2016 5:41:47 PM	24115
Uranium	0.0048	0.000025	0.0025		mg/L	5	3/14/2016 4:32:59 PM	24115
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/8/2016 11:09:34 AM	24112
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Aniline	ND	9.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/4/2016 4:44:56 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/4/2016 4:44:56 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Carbazole	12	7.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/4/2016 4:44:56 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/4/2016 4:44:56 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/4/2016 4:44:56 PM	24000

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-09
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 1:30:00 PM
Lab ID: 1603069-003
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/4/2016 4:44:56 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/4/2016 4:44:56 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/4/2016 4:44:56 PM	24000
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/4/2016 4:44:56 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/4/2016 4:44:56 PM	24000
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/4/2016 4:44:56 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/4/2016 4:44:56 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/4/2016 4:44:56 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/4/2016 4:44:56 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Fluorene	ND	7.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
1-Methylnaphthalene	69	6.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
2-Methylnaphthalene	10	7.0	10		µg/L	1	3/4/2016 4:44:56 PM	24000
2-Methylphenol	ND	8.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Naphthalene	32	5.9	10		µg/L	1	3/4/2016 4:44:56 PM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/4/2016 4:44:56 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/4/2016 4:44:56 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/4/2016 4:44:56 PM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Phenol	ND	5.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000

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Hall Environmental Analysis Laboratory, Inc.

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Client Sample ID: MKTF-09
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 1:30:00 PM
Lab ID: 1603069-003
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/4/2016 4:44:56 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/4/2016 4:44:56 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Surr: 2-Fluorophenol	36.9	0	4.63-113		%Rec	1	3/4/2016 4:44:56 PM	24000
Surr: Phenol-d5	32.7	0	4.13-124		%Rec	1	3/4/2016 4:44:56 PM	24000
Surr: 2,4,6-Tribromophenol	68.3	0	5.14-132		%Rec	1	3/4/2016 4:44:56 PM	24000
Surr: Nitrobenzene-d5	77.7	0	9.13-140		%Rec	1	3/4/2016 4:44:56 PM	24000
Surr: 2-Fluorobiphenyl	76.2	0	10.8-132		%Rec	1	3/4/2016 4:44:56 PM	24000
Surr: 4-Terphenyl-d14	61.1	0	12.9-107		%Rec	1	3/4/2016 4:44:56 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	1600	9.6	100		µg/L	100	3/4/2016 7:28:58 PM	R32609
Toluene	29	0.89	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Ethylbenzene	240	1.1	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Methyl tert-butyl ether (MTBE)	690	2.1	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,2,4-Trimethylbenzene	65	1.0	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,3,5-Trimethylbenzene	ND	1.2	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,2-Dichloroethane (EDC)	ND	0.53	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Naphthalene	41	0.83	20		µg/L	10	3/4/2016 7:57:35 PM	R32609
1-Methylnaphthalene	82	2.0	40		µg/L	10	3/4/2016 7:57:35 PM	R32609
2-Methylnaphthalene	14	1.6	40	J	µg/L	10	3/4/2016 7:57:35 PM	R32609
Acetone	10	8.8	100	J	µg/L	10	3/4/2016 7:57:35 PM	R32609
Bromobenzene	ND	0.80	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Bromodichloromethane	ND	0.98	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Bromoform	ND	1.0	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Bromomethane	ND	7.8	30		µg/L	10	3/4/2016 7:57:35 PM	R32609
2-Butanone	ND	3.2	100		µg/L	10	3/4/2016 7:57:35 PM	R32609
Carbon disulfide	ND	6.0	100		µg/L	10	3/4/2016 7:57:35 PM	R32609
Carbon Tetrachloride	ND	1.1	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Chlorobenzene	ND	1.0	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Chloroethane	ND	1.5	20		µg/L	10	3/4/2016 7:57:35 PM	R32609
Chloroform	ND	0.89	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Chloromethane	ND	2.1	30		µg/L	10	3/4/2016 7:57:35 PM	R32609
2-Chlorotoluene	ND	4.0	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
4-Chlorotoluene	ND	1.3	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
cis-1,2-DCE	27	1.2	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
cis-1,3-Dichloropropene	ND	1.0	10		µg/L	10	3/4/2016 7:57:35 PM	R32609

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Hall Environmental Analysis Laboratory, Inc.

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Project: Quarterly GW Sampling
Collection Date: 2/29/2016 1:30:00 PM
Lab ID: 1603069-003
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	1.5	20		µg/L	10	3/4/2016 7:57:35 PM	R32609
Dibromochloromethane	ND	0.87	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Dibromomethane	ND	1.2	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Dichlorodifluoromethane	ND	3.2	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,1-Dichloroethane	29	1.1	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,1-Dichloroethene	36	0.76	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,2-Dichloropropane	ND	0.47	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,3-Dichloropropane	ND	1.6	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
2,2-Dichloropropane	ND	1.2	20		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,1-Dichloropropene	ND	1.3	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Hexachlorobutadiene	ND	2.0	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
2-Hexanone	ND	3.6	100		µg/L	10	3/4/2016 7:57:35 PM	R32609
Isopropylbenzene	18	0.98	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
4-Isopropyltoluene	2.4	1.4	10	J	µg/L	10	3/4/2016 7:57:35 PM	R32609
4-Methyl-2-pentanone	ND	1.5	100		µg/L	10	3/4/2016 7:57:35 PM	R32609
Methylene Chloride	ND	0.63	30		µg/L	10	3/4/2016 7:57:35 PM	R32609
n-Butylbenzene	7.2	1.6	30	J	µg/L	10	3/4/2016 7:57:35 PM	R32609
n-Propylbenzene	32	1.3	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
sec-Butylbenzene	4.0	1.1	10	J	µg/L	10	3/4/2016 7:57:35 PM	R32609
Styrene	ND	0.95	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
tert-Butylbenzene	ND	0.96	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,1,2,2-Tetrachloroethane	ND	1.1	20		µg/L	10	3/4/2016 7:57:35 PM	R32609
Tetrachloroethene (PCE)	5.2	1.5	10	J	µg/L	10	3/4/2016 7:57:35 PM	R32609
trans-1,2-DCE	ND	4.0	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
trans-1,3-Dichloropropene	ND	0.85	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,1,1-Trichloroethane	46	0.63	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,1,2-Trichloroethane	ND	0.77	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Trichloroethene (TCE)	4.4	1.8	10	J	µg/L	10	3/4/2016 7:57:35 PM	R32609
Trichlorofluoromethane	ND	0.88	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,2,3-Trichloropropane	ND	1.1	20		µg/L	10	3/4/2016 7:57:35 PM	R32609
Vinyl chloride	ND	0.63	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Xylenes, Total	64	3.2	15		µg/L	10	3/4/2016 7:57:35 PM	R32609
Surr: 1,2-Dichloroethane-d4	99.6	0	70-130		%Rec	10	3/4/2016 7:57:35 PM	R32609

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Collection Date: 2/29/2016 1:30:00 PM
Lab ID: 1603069-003
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	86.5	0	70-130		%Rec	10	3/4/2016 7:57:35 PM	R32609
Surr: Dibromofluoromethane	107	0	70-130		%Rec	10	3/4/2016 7:57:35 PM	R32609
Surr: Toluene-d8	101	0	70-130		%Rec	10	3/4/2016 7:57:35 PM	R32609

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1603069-004
Matrix: TRIP BLANK
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	3/3/2016 9:37:17 PM	A32557
Surr: BFB	91.2	0	49.5-130		%Rec	1	3/3/2016 9:37:17 PM	A32557
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	ND	0.096	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Toluene	ND	0.089	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Naphthalene	ND	0.083	2.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Acetone	ND	0.88	10		µg/L	1	3/5/2016 4:35:35 AM	R32609
Bromobenzene	ND	0.080	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Bromoform	ND	0.10	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Bromomethane	ND	0.78	3.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
2-Butanone	ND	0.32	10		µg/L	1	3/5/2016 4:35:35 AM	R32609
Carbon disulfide	ND	0.60	10		µg/L	1	3/5/2016 4:35:35 AM	R32609
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Chloroethane	ND	0.15	2.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Chloroform	ND	0.089	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Chloromethane	ND	0.21	3.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Dibromomethane	ND	0.12	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609

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Collection Date:
Lab ID: 1603069-004
Matrix: TRIP BLANK
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
2-Hexanone	ND	0.36	10		µg/L	1	3/5/2016 4:35:35 AM	R32609
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/5/2016 4:35:35 AM	R32609
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Styrene	ND	0.095	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/5/2016 4:35:35 AM	R32609
Surr: 1,2-Dichloroethane-d4	100	0	70-130		%Rec	1	3/5/2016 4:35:35 AM	R32609
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	3/5/2016 4:35:35 AM	R32609
Surr: Dibromofluoromethane	113	0	70-130		%Rec	1	3/5/2016 4:35:35 AM	R32609
Surr: Toluene-d8	106	0	70-130		%Rec	1	3/5/2016 4:35:35 AM	R32609

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-16
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 2:25:00 PM
Lab ID: 1603069-005 **Matrix:** AQUEOUS **Received Date:** 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	2.6	0.69	1.0		mg/L	1	3/3/2016 4:00:20 PM	24027
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/3/2016 4:00:20 PM	24027
Surr: DNOP	91.5	0	70-141		%Rec	1	3/3/2016 4:00:20 PM	24027
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	73	2.5	5.0		mg/L	100	3/3/2016 10:01:51 PM	A32557
Surr: BFB	95.6	0	49.5-130		%Rec	100	3/3/2016 10:01:51 PM	A32557
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	1.0	0.023	0.10		mg/L	1	3/4/2016 8:13:44 PM	R32618
Chloride	710	1.4	25		mg/L	50	3/11/2016 4:59:46 AM	R32710
Bromide	ND	0.032	0.10		mg/L	1	3/4/2016 8:13:44 PM	R32618
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	3/4/2016 8:13:44 PM	R32618
Sulfate	0.068	0.064	0.50	J	mg/L	1	3/4/2016 8:13:44 PM	R32618
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	3/3/2016 12:18:57 PM	a32571
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	1.3	0.013	0.020		mg/L	10	3/18/2016 12:17:09 PM	B32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/16/2016 2:24:25 PM	C32831
Calcium	68	0.26	1.0		mg/L	1	3/16/2016 2:24:25 PM	C32831
Chromium	ND	0.0018	0.0060		mg/L	1	3/16/2016 2:24:25 PM	C32831
Copper	ND	0.0040	0.0060		mg/L	1	3/16/2016 2:24:25 PM	C32831
Iron	5.8	0.091	0.20	*	mg/L	10	3/18/2016 12:17:09 PM	B32891
Magnesium	19	0.013	1.0		mg/L	1	3/16/2016 2:24:25 PM	C32831
Manganese	1.7	0.0032	0.020	*	mg/L	10	3/18/2016 12:17:09 PM	B32891
Potassium	1.3	0.18	1.0		mg/L	1	3/16/2016 2:24:25 PM	C32831
Silver	ND	0.0028	0.0050		mg/L	1	3/16/2016 2:24:25 PM	C32831
Sodium	710	0.96	10		mg/L	10	3/18/2016 12:17:09 PM	B32891
Zinc	0.018	0.0028	0.010		mg/L	1	3/16/2016 2:24:25 PM	C32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	1.3	0.011	0.020		mg/L	10	3/15/2016 11:23:20 AM	24115
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 4:24:50 PM	24115
Chromium	ND	0.0022	0.0060		mg/L	1	3/11/2016 4:24:50 PM	24115
Copper	ND	0.0051	0.0060		mg/L	1	3/15/2016 11:21:42 AM	24115
Iron	6.5	0.072	0.20	*	mg/L	10	3/15/2016 11:23:20 AM	24115
Manganese	1.8	0.015	0.020	*	mg/L	10	3/15/2016 11:23:20 AM	24115
Silver	ND	0.0021	0.0050		mg/L	1	3/11/2016 4:24:50 PM	24115
Zinc	0.034	0.0039	0.010		mg/L	1	3/15/2016 11:21:42 AM	24115
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.010	0.00032	0.0050	*	mg/L	5	3/22/2016 8:25:51 PM	C32978

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Lab ID: 1603069-005
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00079	0.000026	0.00050		mg/L	1	3/22/2016 8:22:47 PM	C32978
Selenium	0.0099	0.00097	0.0050		mg/L	5	3/22/2016 8:25:51 PM	C32978
Uranium	0.00025	0.0000048	0.00050	J	mg/L	1	3/22/2016 8:22:47 PM	C32978
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0092	0.0015	0.0050		mg/L	5	3/14/2016 5:47:48 PM	24115
Lead	0.0031	0.00024	0.0025		mg/L	5	3/14/2016 4:39:00 PM	24115
Selenium	0.0049	0.00062	0.0050	J	mg/L	5	3/14/2016 5:47:48 PM	24115
Uranium	0.00066	0.000025	0.0025	J	mg/L	5	3/14/2016 4:39:00 PM	24115
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/8/2016 11:11:38 AM	24112
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Aniline	11	9.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/4/2016 5:15:51 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/4/2016 5:15:51 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Carbazole	ND	7.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/4/2016 5:15:51 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/4/2016 5:15:51 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/4/2016 5:15:51 PM	24000

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Project: Quarterly GW Sampling
Collection Date: 2/29/2016 2:25:00 PM
Lab ID: 1603069-005
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/4/2016 5:15:51 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/4/2016 5:15:51 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/4/2016 5:15:51 PM	24000
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/4/2016 5:15:51 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/4/2016 5:15:51 PM	24000
2,4-Dimethylphenol	91	4.7	10		µg/L	1	3/4/2016 5:15:51 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/4/2016 5:15:51 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/4/2016 5:15:51 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/4/2016 5:15:51 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Fluorene	ND	7.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
1-Methylnaphthalene	33	6.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
2-Methylnaphthalene	42	7.0	10		µg/L	1	3/4/2016 5:15:51 PM	24000
2-Methylphenol	79	8.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Naphthalene	110	5.9	10		µg/L	1	3/4/2016 5:15:51 PM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/4/2016 5:15:51 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/4/2016 5:15:51 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/4/2016 5:15:51 PM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Phenol	30	5.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/4/2016 5:15:51 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/4/2016 5:15:51 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Surr: 2-Fluorophenol	25.8	0	4.63-113		%Rec	1	3/4/2016 5:15:51 PM	24000
Surr: Phenol-d5	32.7	0	4.13-124		%Rec	1	3/4/2016 5:15:51 PM	24000
Surr: 2,4,6-Tribromophenol	79.5	0	5.14-132		%Rec	1	3/4/2016 5:15:51 PM	24000
Surr: Nitrobenzene-d5	75.5	0	9.13-140		%Rec	1	3/4/2016 5:15:51 PM	24000
Surr: 2-Fluorobiphenyl	87.0	0	10.8-132		%Rec	1	3/4/2016 5:15:51 PM	24000
Surr: 4-Terphenyl-d14	63.3	0	12.9-107		%Rec	1	3/4/2016 5:15:51 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	19000	96	1000		µg/L	1000	3/4/2016 8:26:11 PM	R32609
Toluene	280	8.9	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Ethylbenzene	1000	11	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Methyl tert-butyl ether (MTBE)	1400	21	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,2,4-Trimethylbenzene	690	10	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,3,5-Trimethylbenzene	240	12	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,2-Dichloroethane (EDC)	ND	5.3	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,2-Dibromoethane (EDB)	ND	11	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Naphthalene	140	8.3	200	J	µg/L	100	3/4/2016 8:55:03 PM	R32609
1-Methylnaphthalene	57	20	400	J	µg/L	100	3/4/2016 8:55:03 PM	R32609
2-Methylnaphthalene	63	16	400	J	µg/L	100	3/4/2016 8:55:03 PM	R32609
Acetone	ND	88	1000		µg/L	100	3/4/2016 8:55:03 PM	R32609
Bromobenzene	ND	8.0	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Bromodichloromethane	ND	9.8	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Bromoform	ND	10	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Bromomethane	ND	78	300		µg/L	100	3/4/2016 8:55:03 PM	R32609
2-Butanone	ND	32	1000		µg/L	100	3/4/2016 8:55:03 PM	R32609
Carbon disulfide	ND	60	1000		µg/L	100	3/4/2016 8:55:03 PM	R32609
Carbon Tetrachloride	ND	11	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Chlorobenzene	ND	10	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Chloroethane	ND	15	200		µg/L	100	3/4/2016 8:55:03 PM	R32609
Chloroform	ND	8.9	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Chloromethane	ND	21	300		µg/L	100	3/4/2016 8:55:03 PM	R32609
2-Chlorotoluene	ND	40	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
4-Chlorotoluene	ND	13	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
cis-1,2-DCE	ND	12	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
cis-1,3-Dichloropropene	ND	10	100		µg/L	100	3/4/2016 8:55:03 PM	R32609

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-16
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 2:25:00 PM
Lab ID: 1603069-005 **Matrix:** AQUEOUS **Received Date:** 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	15	200		µg/L	100	3/4/2016 8:55:03 PM	R32609
Dibromochloromethane	ND	8.7	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Dibromomethane	ND	12	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,2-Dichlorobenzene	ND	40	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,3-Dichlorobenzene	ND	14	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,4-Dichlorobenzene	ND	14	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Dichlorodifluoromethane	ND	32	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,1-Dichloroethane	50	11	100	J	µg/L	100	3/4/2016 8:55:03 PM	R32609
1,1-Dichloroethene	ND	7.6	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,2-Dichloropropane	ND	4.7	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,3-Dichloropropane	ND	16	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
2,2-Dichloropropane	ND	12	200		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,1-Dichloropropene	ND	13	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Hexachlorobutadiene	ND	20	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
2-Hexanone	ND	36	1000		µg/L	100	3/4/2016 8:55:03 PM	R32609
Isopropylbenzene	ND	9.8	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
4-Isopropyltoluene	ND	14	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
4-Methyl-2-pentanone	ND	15	1000		µg/L	100	3/4/2016 8:55:03 PM	R32609
Methylene Chloride	ND	6.3	300		µg/L	100	3/4/2016 8:55:03 PM	R32609
n-Butylbenzene	ND	16	300		µg/L	100	3/4/2016 8:55:03 PM	R32609
n-Propylbenzene	59	13	100	J	µg/L	100	3/4/2016 8:55:03 PM	R32609
sec-Butylbenzene	ND	11	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Styrene	ND	9.5	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
tert-Butylbenzene	ND	9.6	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,1,1,2-Tetrachloroethane	ND	11	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,1,2,2-Tetrachloroethane	ND	11	200		µg/L	100	3/4/2016 8:55:03 PM	R32609
Tetrachloroethene (PCE)	ND	15	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
trans-1,2-DCE	ND	40	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
trans-1,3-Dichloropropene	ND	8.5	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,2,3-Trichlorobenzene	ND	11	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,2,4-Trichlorobenzene	ND	13	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,1,1-Trichloroethane	ND	6.3	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,1,2-Trichloroethane	ND	7.7	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Trichloroethene (TCE)	ND	18	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Trichlorofluoromethane	ND	8.8	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,2,3-Trichloropropane	ND	11	200		µg/L	100	3/4/2016 8:55:03 PM	R32609
Vinyl chloride	ND	6.3	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Xylenes, Total	3900	32	150		µg/L	100	3/4/2016 8:55:03 PM	R32609
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	100	3/4/2016 8:55:03 PM	R32609

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-16
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 2:25:00 PM
Lab ID: 1603069-005
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	95.4	0	70-130		%Rec	100	3/4/2016 8:55:03 PM	R32609
Surr: Dibromofluoromethane	109	0	70-130		%Rec	100	3/4/2016 8:55:03 PM	R32609
Surr: Toluene-d8	95.6	0	70-130		%Rec	100	3/4/2016 8:55:03 PM	R32609

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-38
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 4:20:00 PM
Lab ID: 1603069-006
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/3/2016 4:22:07 PM	24027
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/3/2016 4:22:07 PM	24027
Surr: DNOP	94.7	0	70-141		%Rec	1	3/3/2016 4:22:07 PM	24027
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.14	0.025	0.050		mg/L	1	3/3/2016 10:26:19 PM	A32557
Surr: BFB	92.5	0	49.5-130		%Rec	1	3/3/2016 10:26:19 PM	A32557
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	0.75	0.023	0.10		mg/L	1	3/4/2016 9:03:22 PM	R32618
Chloride	110	0.55	10		mg/L	20	3/4/2016 9:15:47 PM	R32618
Bromide	0.75	0.032	0.10		mg/L	1	3/4/2016 9:03:22 PM	R32618
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	3/4/2016 9:03:22 PM	R32618
Sulfate	450	1.3	10		mg/L	20	3/4/2016 9:15:47 PM	R32618
Nitrate+Nitrite as N	7.2	0.42	1.0		mg/L	5	3/3/2016 12:31:22 PM	a32571
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.030	0.0013	0.0020		mg/L	1	3/16/2016 2:26:04 PM	C32831
Cadmium	ND	0.00075	0.0020		mg/L	1	3/16/2016 2:26:04 PM	C32831
Calcium	150	1.3	5.0		mg/L	5	3/18/2016 12:19:05 PM	B32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/16/2016 2:26:04 PM	C32831
Copper	ND	0.0040	0.0060		mg/L	1	3/16/2016 2:26:04 PM	C32831
Iron	0.070	0.0091	0.020		mg/L	1	3/16/2016 2:26:04 PM	C32831
Magnesium	31	0.013	1.0		mg/L	1	3/16/2016 2:26:04 PM	C32831
Manganese	2.3	0.0016	0.010	*	mg/L	5	3/18/2016 12:19:05 PM	B32891
Potassium	0.55	0.18	1.0	J	mg/L	1	3/16/2016 2:26:04 PM	C32831
Silver	ND	0.0028	0.0050		mg/L	1	3/16/2016 2:26:04 PM	C32831
Sodium	210	0.48	5.0		mg/L	5	3/18/2016 12:19:05 PM	B32891
Zinc	0.012	0.0028	0.010		mg/L	1	3/16/2016 2:26:04 PM	C32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.14	0.0011	0.0020		mg/L	1	3/11/2016 4:26:30 PM	24115
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 4:26:30 PM	24115
Chromium	ND	0.0022	0.0060		mg/L	1	3/11/2016 4:26:30 PM	24115
Copper	ND	0.0051	0.0060		mg/L	1	3/15/2016 11:25:18 AM	24115
Iron	2.3	0.036	0.10	*	mg/L	5	3/15/2016 11:35:32 AM	24115
Manganese	2.7	0.0076	0.010	*	mg/L	5	3/15/2016 11:35:32 AM	24115
Silver	ND	0.0021	0.0050		mg/L	1	3/11/2016 4:26:30 PM	24115
Zinc	0.014	0.0039	0.010		mg/L	1	3/15/2016 11:25:18 AM	24115
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0014	0.00032	0.0050	J	mg/L	5	3/22/2016 8:28:54 PM	C32978

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-38
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 4:20:00 PM
Lab ID: 1603069-006
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.000047	0.000026	0.00050	J	mg/L	1	3/15/2016 6:25:47 PM	C32805
Selenium	0.0033	0.00019	0.0010		mg/L	1	3/15/2016 6:25:47 PM	C32805
Uranium	0.012	0.000024	0.0025		mg/L	5	3/22/2016 8:28:54 PM	C32978
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0017	0.00029	0.0010		mg/L	1	3/11/2016 5:04:30 PM	24115
Lead	0.0035	0.000047	0.00050		mg/L	1	3/11/2016 5:04:30 PM	24115
Selenium	0.0024	0.00062	0.0050	J	mg/L	5	3/14/2016 6:02:54 PM	24115
Uranium	0.014	0.0000049	0.00050		mg/L	1	3/11/2016 5:04:30 PM	24115
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/8/2016 11:13:43 AM	24112
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Aniline	ND	9.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/4/2016 5:46:39 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/4/2016 5:46:39 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Carbazole	ND	7.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/4/2016 5:46:39 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/4/2016 5:46:39 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/4/2016 5:46:39 PM	24000

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-38
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 4:20:00 PM
Lab ID: 1603069-006
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/4/2016 5:46:39 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/4/2016 5:46:39 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/4/2016 5:46:39 PM	24000
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/4/2016 5:46:39 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/4/2016 5:46:39 PM	24000
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/4/2016 5:46:39 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/4/2016 5:46:39 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/4/2016 5:46:39 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/4/2016 5:46:39 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Fluorene	ND	7.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/4/2016 5:46:39 PM	24000
2-Methylphenol	ND	8.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Naphthalene	ND	5.9	10		µg/L	1	3/4/2016 5:46:39 PM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/4/2016 5:46:39 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/4/2016 5:46:39 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/4/2016 5:46:39 PM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Phenol	ND	5.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-38
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 4:20:00 PM
Lab ID: 1603069-006
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/4/2016 5:46:39 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/4/2016 5:46:39 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Surr: 2-Fluorophenol	49.4	0	4.63-113		%Rec	1	3/4/2016 5:46:39 PM	24000
Surr: Phenol-d5	46.8	0	4.13-124		%Rec	1	3/4/2016 5:46:39 PM	24000
Surr: 2,4,6-Tribromophenol	71.5	0	5.14-132		%Rec	1	3/4/2016 5:46:39 PM	24000
Surr: Nitrobenzene-d5	105	0	9.13-140		%Rec	1	3/4/2016 5:46:39 PM	24000
Surr: 2-Fluorobiphenyl	104	0	10.8-132		%Rec	1	3/4/2016 5:46:39 PM	24000
Surr: 4-Terphenyl-d14	71.3	0	12.9-107		%Rec	1	3/4/2016 5:46:39 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	0.34	0.096	1.0	J	µg/L	1	3/4/2016 10:50:19 PM	R32609
Toluene	ND	0.089	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Methyl tert-butyl ether (MTBE)	0.59	0.21	1.0	J	µg/L	1	3/4/2016 10:50:19 PM	R32609
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Naphthalene	ND	0.083	2.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Acetone	ND	0.88	10		µg/L	1	3/4/2016 10:50:19 PM	R32609
Bromobenzene	ND	0.080	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Bromoform	ND	0.10	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Bromomethane	ND	0.78	3.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
2-Butanone	ND	0.32	10		µg/L	1	3/4/2016 10:50:19 PM	R32609
Carbon disulfide	ND	0.60	10		µg/L	1	3/4/2016 10:50:19 PM	R32609
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Chloroethane	ND	0.15	2.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Chloroform	ND	0.089	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Chloromethane	ND	0.21	3.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
cis-1,2-DCE	1.3	0.12	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-38
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 4:20:00 PM
Lab ID: 1603069-006 **Matrix:** AQUEOUS **Received Date:** 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Dibromomethane	ND	0.12	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,1-Dichloroethane	0.73	0.11	1.0	J	µg/L	1	3/4/2016 10:50:19 PM	R32609
1,1-Dichloroethene	0.11	0.076	1.0	J	µg/L	1	3/4/2016 10:50:19 PM	R32609
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
2-Hexanone	ND	0.36	10		µg/L	1	3/4/2016 10:50:19 PM	R32609
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/4/2016 10:50:19 PM	R32609
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Styrene	ND	0.095	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Tetrachloroethene (PCE)	1.1	0.15	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Vinyl chloride	0.37	0.063	1.0	J	µg/L	1	3/4/2016 10:50:19 PM	R32609
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/4/2016 10:50:19 PM	R32609
Surr: 1,2-Dichloroethane-d4	94.8	0	70-130		%Rec	1	3/4/2016 10:50:19 PM	R32609

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-38
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 4:20:00 PM
Lab ID: 1603069-006
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	3/4/2016 10:50:19 PM	R32609
Surr: Dibromofluoromethane	110	0	70-130		%Rec	1	3/4/2016 10:50:19 PM	R32609
Surr: Toluene-d8	101	0	70-130		%Rec	1	3/4/2016 10:50:19 PM	R32609

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-10
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 5:00:00 PM
Lab ID: 1603069-007
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	14	0.69	1.0		mg/L	1	3/3/2016 4:43:48 PM	24027
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/3/2016 4:43:48 PM	24027
Surr: DNOP	93.1	0	70-141		%Rec	1	3/3/2016 4:43:48 PM	24027
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	110	2.5	5.0		mg/L	100	3/3/2016 10:50:52 PM	A32557
Surr: BFB	99.3	0	49.5-130		%Rec	100	3/3/2016 10:50:52 PM	A32557
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	ND	0.45	2.0		mg/L	20	3/4/2016 9:40:37 PM	R32618
Chloride	280	0.55	10		mg/L	20	3/4/2016 9:40:37 PM	R32618
Bromide	0.88	0.16	0.50		mg/L	5	3/4/2016 9:28:12 PM	R32618
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5	H	mg/L	5	3/4/2016 9:28:12 PM	R32618
Sulfate	ND	0.32	2.5		mg/L	5	3/4/2016 9:28:12 PM	R32618
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	3/3/2016 1:21:01 PM	a32571
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	14	0.066	0.10	*	mg/L	50	3/18/2016 12:34:26 PM	B32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/16/2016 2:28:00 PM	C32831
Calcium	620	13	50		mg/L	50	3/18/2016 12:34:26 PM	B32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/16/2016 2:28:00 PM	C32831
Copper	ND	0.0040	0.0060		mg/L	1	3/16/2016 2:28:00 PM	C32831
Iron	54	0.91	2.0	*	mg/L	100	3/18/2016 12:45:57 PM	B32891
Magnesium	140	0.065	5.0		mg/L	5	3/18/2016 12:32:47 PM	B32891
Manganese	20	0.016	0.10	*	mg/L	50	3/18/2016 12:34:26 PM	B32891
Potassium	0.99	0.18	1.0	J	mg/L	1	3/16/2016 2:28:00 PM	C32831
Silver	ND	0.0028	0.0050		mg/L	1	3/16/2016 2:28:00 PM	C32831
Sodium	430	0.48	5.0		mg/L	5	3/18/2016 12:32:47 PM	B32891
Zinc	0.017	0.0028	0.010		mg/L	1	3/16/2016 2:28:00 PM	C32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	16	0.11	0.20	*	mg/L	100	3/15/2016 11:39:22 AM	24115
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 4:28:17 PM	24115
Chromium	ND	0.0022	0.0060		mg/L	1	3/11/2016 4:28:17 PM	24115
Copper	ND	0.0051	0.0060		mg/L	1	3/15/2016 11:37:31 AM	24115
Iron	57	0.72	2.0	*	mg/L	100	3/15/2016 11:39:22 AM	24115
Manganese	21	0.15	0.20	*	mg/L	100	3/15/2016 11:39:22 AM	24115
Silver	ND	0.0021	0.0050		mg/L	1	3/11/2016 4:28:17 PM	24115
Zinc	0.014	0.0039	0.010		mg/L	1	3/15/2016 11:37:31 AM	24115
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0083	0.00032	0.0050		mg/L	5	3/22/2016 8:38:06 PM	C32978

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-10
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 5:00:00 PM
Lab ID: 1603069-007
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00013	0.0025		mg/L	5	3/22/2016 8:38:06 PM	C32978
Selenium	0.0042	0.00097	0.0050	J	mg/L	5	3/22/2016 8:38:06 PM	C32978
Uranium	0.0015	0.000024	0.0025	J	mg/L	5	3/22/2016 8:38:06 PM	C32978
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0086	0.0015	0.0050		mg/L	5	3/14/2016 6:05:54 PM	24115
Lead	0.0027	0.00024	0.0025		mg/L	5	3/14/2016 6:05:54 PM	24115
Selenium	0.0020	0.00062	0.0050	J	mg/L	5	3/14/2016 6:05:54 PM	24115
Uranium	0.0015	0.000025	0.0025	J	mg/L	5	3/14/2016 6:05:54 PM	24115
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/8/2016 11:15:48 AM	24112
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Aniline	42	9.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/4/2016 6:17:29 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/4/2016 6:17:29 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Carbazole	ND	7.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/4/2016 6:17:29 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/4/2016 6:17:29 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/4/2016 6:17:29 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/4/2016 6:17:29 PM	24000

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-10
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 5:00:00 PM
Lab ID: 1603069-007
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/4/2016 6:17:29 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/4/2016 6:17:29 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/4/2016 6:17:29 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/4/2016 6:17:29 PM	24000
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/4/2016 6:17:29 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/4/2016 6:17:29 PM	24000
2,4-Dimethylphenol	170	4.7	10		µg/L	1	3/4/2016 6:17:29 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/4/2016 6:17:29 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/4/2016 6:17:29 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/4/2016 6:17:29 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Fluorene	ND	7.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/4/2016 6:17:29 PM	24000
1-Methylnaphthalene	57	6.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
2-Methylnaphthalene	80	7.0	10		µg/L	1	3/4/2016 6:17:29 PM	24000
2-Methylphenol	770	82	100		µg/L	10	3/13/2016 1:11:08 AM	24000
3+4-Methylphenol	1000	71	100		µg/L	10	3/13/2016 1:11:08 AM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/4/2016 6:17:29 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Naphthalene	200	5.9	10		µg/L	1	3/4/2016 6:17:29 PM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/4/2016 6:17:29 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/4/2016 6:17:29 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/4/2016 6:17:29 PM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Phenol	670	51	100		µg/L	10	3/13/2016 1:11:08 AM	24000

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-10
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 5:00:00 PM
Lab ID: 1603069-007
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/4/2016 6:17:29 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/4/2016 6:17:29 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Surr: 2-Fluorophenol	0.510	0	4.63-113	S	%Rec	1	3/4/2016 6:17:29 PM	24000
Surr: Phenol-d5	66.1	0	4.13-124		%Rec	1	3/4/2016 6:17:29 PM	24000
Surr: 2,4,6-Tribromophenol	115	0	5.14-132		%Rec	1	3/4/2016 6:17:29 PM	24000
Surr: Nitrobenzene-d5	23.7	0	9.13-140		%Rec	1	3/4/2016 6:17:29 PM	24000
Surr: 2-Fluorobiphenyl	130	0	10.8-132		%Rec	1	3/4/2016 6:17:29 PM	24000
Surr: 4-Terphenyl-d14	76.1	0	12.9-107		%Rec	1	3/4/2016 6:17:29 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	11000	96	1000	P	µg/L	1000	3/4/2016 9:23:54 PM	R32609
Toluene	23000	89	1000	P	µg/L	1000	3/4/2016 9:23:54 PM	R32609
Ethylbenzene	1700	11	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Methyl tert-butyl ether (MTBE)	ND	21	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,2,4-Trimethylbenzene	900	10	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,3,5-Trimethylbenzene	200	12	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,2-Dichloroethane (EDC)	ND	5.3	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,2-Dibromoethane (EDB)	ND	11	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Naphthalene	210	8.3	200	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1-Methylnaphthalene	74	20	400	JP	µg/L	100	3/4/2016 9:52:44 PM	R32609
2-Methylnaphthalene	87	16	400	JP	µg/L	100	3/4/2016 9:52:44 PM	R32609
Acetone	160	88	1000	JP	µg/L	100	3/4/2016 9:52:44 PM	R32609
Bromobenzene	ND	8.0	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Bromodichloromethane	ND	9.8	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Bromoform	ND	10	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Bromomethane	ND	78	300	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
2-Butanone	680	32	1000	JP	µg/L	100	3/4/2016 9:52:44 PM	R32609
Carbon disulfide	ND	60	1000	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Carbon Tetrachloride	ND	11	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Chlorobenzene	ND	10	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Chloroethane	ND	15	200	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Chloroform	ND	8.9	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Chloromethane	ND	21	300	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
2-Chlorotoluene	ND	40	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
4-Chlorotoluene	ND	13	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
cis-1,2-DCE	31	12	100	JP	µg/L	100	3/4/2016 9:52:44 PM	R32609
cis-1,3-Dichloropropene	ND	10	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-10
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 5:00:00 PM
Lab ID: 1603069-007 **Matrix:** AQUEOUS **Received Date:** 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	15	200	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Dibromochloromethane	ND	8.7	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Dibromomethane	ND	12	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,2-Dichlorobenzene	ND	40	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,3-Dichlorobenzene	ND	14	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,4-Dichlorobenzene	ND	14	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Dichlorodifluoromethane	ND	32	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,1-Dichloroethane	70	11	100	JP	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,1-Dichloroethene	ND	7.6	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,2-Dichloropropane	ND	4.7	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,3-Dichloropropane	ND	16	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
2,2-Dichloropropane	ND	12	200	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,1-Dichloropropene	ND	13	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Hexachlorobutadiene	ND	20	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
2-Hexanone	ND	36	1000	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Isopropylbenzene	34	9.8	100	JP	µg/L	100	3/4/2016 9:52:44 PM	R32609
4-Isopropyltoluene	ND	14	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
4-Methyl-2-pentanone	ND	15	1000	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Methylene Chloride	25	6.3	300	JP	µg/L	100	3/4/2016 9:52:44 PM	R32609
n-Butylbenzene	18	16	300	JP	µg/L	100	3/4/2016 9:52:44 PM	R32609
n-Propylbenzene	120	13	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
sec-Butylbenzene	ND	11	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Styrene	ND	9.5	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
tert-Butylbenzene	ND	9.6	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,1,1,2-Tetrachloroethane	ND	11	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,1,2,2-Tetrachloroethane	ND	11	200	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Tetrachloroethene (PCE)	ND	15	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
trans-1,2-DCE	ND	40	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
trans-1,3-Dichloropropene	ND	8.5	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,2,3-Trichlorobenzene	ND	11	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,2,4-Trichlorobenzene	ND	13	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,1,1-Trichloroethane	ND	6.3	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,1,2-Trichloroethane	ND	7.7	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Trichloroethene (TCE)	ND	18	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Trichlorofluoromethane	ND	8.8	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,2,3-Trichloropropane	ND	11	200	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Vinyl chloride	ND	6.3	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Xylenes, Total	7700	32	150	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Surr: 1,2-Dichloroethane-d4	99.3	0	70-130	P	%Rec	100	3/4/2016 9:52:44 PM	R32609

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-10
Project: Quarterly GW Sampling
Collection Date: 2/29/2016 5:00:00 PM
Lab ID: 1603069-007
Matrix: AQUEOUS
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	98.5	0	70-130	P	%Rec	100	3/4/2016 9:52:44 PM	R32609
Surr: Dibromofluoromethane	108	0	70-130	P	%Rec	100	3/4/2016 9:52:44 PM	R32609
Surr: Toluene-d8	102	0	70-130	P	%Rec	100	3/4/2016 9:52:44 PM	R32609

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1603069-008
Matrix: TRIP BLANK
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	3/3/2016 11:15:25 PM	A32557
Surr: BFB	86.2	0	49.5-130		%Rec	1	3/3/2016 11:15:25 PM	A32557
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	ND	0.096	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Toluene	ND	0.089	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Naphthalene	ND	0.083	2.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Acetone	ND	0.88	10		µg/L	1	3/5/2016 5:04:22 AM	R32609
Bromobenzene	ND	0.080	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Bromoform	ND	0.10	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Bromomethane	ND	0.78	3.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
2-Butanone	ND	0.32	10		µg/L	1	3/5/2016 5:04:22 AM	R32609
Carbon disulfide	ND	0.60	10		µg/L	1	3/5/2016 5:04:22 AM	R32609
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Chloroethane	ND	0.15	2.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Chloroform	ND	0.089	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Chloromethane	ND	0.21	3.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Dibromomethane	ND	0.12	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1603069-008
Matrix: TRIP BLANK
Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
2-Hexanone	ND	0.36	10		µg/L	1	3/5/2016 5:04:22 AM	R32609
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/5/2016 5:04:22 AM	R32609
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Styrene	ND	0.095	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/5/2016 5:04:22 AM	R32609
Surr: 1,2-Dichloroethane-d4	106	0	70-130		%Rec	1	3/5/2016 5:04:22 AM	R32609
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	3/5/2016 5:04:22 AM	R32609
Surr: Dibromofluoromethane	115	0	70-130		%Rec	1	3/5/2016 5:04:22 AM	R32609
Surr: Toluene-d8	101	0	70-130		%Rec	1	3/5/2016 5:04:22 AM	R32609

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB-C**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006189** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006190** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.5	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Calcium	50	1.0	50.00	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	98.7	85	115			
Copper	0.48	0.0060	0.5000	0	96.9	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Potassium	49	1.0	50.00	0	97.4	85	115			
Silver	0.097	0.0050	0.1000	0	96.7	85	115			
Zinc	0.50	0.010	0.5000	0	99.8	85	115			

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006191** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0024	0.0020	0.002000	0	119	50	150			
Cadmium	0.0018	0.0020	0.002000	0	91.0	50	150			J
Calcium	0.53	1.0	0.5000	0	107	50	150			J
Chromium	0.0054	0.0060	0.006000	0	89.7	50	150			J
Copper	0.0042	0.0060	0.006000	0	69.8	50	150			J
Iron	0.019	0.020	0.02000	0	96.2	50	150			J
Magnesium	0.52	1.0	0.5000	0	104	50	150			J
Potassium	0.55	1.0	0.5000	0	110	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006191** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.0050	0.0050	0.005000	0	99.6	50	150			J
Zinc	0.0057	0.010	0.005000	0	115	50	150			J

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008295** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Sodium	ND	1.0								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008299** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.4	85	115			
Calcium	50	1.0	50.00	0	101	85	115			
Iron	0.49	0.020	0.5000	0	98.7	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	98.0	85	115			
Sodium	50	1.0	50.00	0	99.0	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008300** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0019	0.0020	0.002000	0	94.0	50	150			J
Calcium	0.52	1.0	0.5000	0	104	50	150			J
Iron	0.023	0.020	0.02000	0	114	50	150			
Magnesium	0.52	1.0	0.5000	0	104	50	150			J
Manganese	0.0021	0.0020	0.002000	0	104	50	150			
Sodium	0.54	1.0	0.5000	0	108	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-24115**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**24115**	RunNo:	**32673**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**999895**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID	**LCS-24115**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID:	**24115**	RunNo:	**32673**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**999896**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.49	0.0060	0.5000	0	98.6	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Manganese	0.49	0.0020	0.5000	0	98.6	85	115			
Silver	0.11	0.0050	0.1000	0	106	85	115			

Sample ID	**LLLCS-24115**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID:	**24115**	RunNo:	**32673**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**999897**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0024	0.0020	0.002000	0	120	50	150			
Cadmium	0.0018	0.0020	0.002000	0	91.5	50	150			J
Chromium	0.0063	0.0060	0.006000	0	106	50	150			
Copper	0.0052	0.0060	0.006000	0	86.8	50	150			J
Iron	0.024	0.020	0.02000	0	119	50	150			
Manganese	0.0023	0.0020	0.002000	0	114	50	150			
Silver	0.0053	0.0050	0.005000	0	106	50	150			

Sample ID	**MB-24115**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**24115**	RunNo:	**32754**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/11/2016**	SeqNo:	**1002483**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**LCS-24115**	SampType: **LCS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID: **24115**			RunNo: **32754**					
Prep Date:	**3/7/2016**	Analysis Date: **3/11/2016**			SeqNo: **1002484**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.50	0.010	0.5000	0	100	85	115			

Sample ID	**LLLCS-24115**	SampType: **LCSLL**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID: **24115**			RunNo: **32754**					
Prep Date:	**3/7/2016**	Analysis Date: **3/11/2016**			SeqNo: **1002485**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.0059	0.010	0.005000	0	118	50	150			J

Sample ID	**1603069-001FMS**	SampType: **MS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-4**	Batch ID: **24115**			RunNo: **32754**					
Prep Date:	**3/7/2016**	Analysis Date: **3/11/2016**			SeqNo: **1002591**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.54	0.0020	0.5000	0	108	70	130			
Chromium	0.52	0.0060	0.5000	0	103	70	130			

Sample ID	**1603069-001FMSD**	SampType: **MSD**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-4**	Batch ID: **24115**			RunNo: **32754**					
Prep Date:	**3/7/2016**	Analysis Date: **3/11/2016**			SeqNo: **1002592**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.54	0.0020	0.5000	0	109	70	130	0.861	20	
Chromium	0.53	0.0060	0.5000	0	105	70	130	2.09	20	

Sample ID	**1603069-002FMS**	SampType: **MS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-11**	Batch ID: **24115**			RunNo: **32754**					
Prep Date:	**3/7/2016**	Analysis Date: **3/11/2016**			SeqNo: **1002597**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.54	0.0020	0.5000	0	108	70	130			
Chromium	0.52	0.0060	0.5000	0	103	70	130			
Silver	0.11	0.0050	0.1000	0	108	70	130			

Sample ID	**1603069-002FMSD**	SampType: **MSD**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-11**	Batch ID: **24115**			RunNo: **32754**					
Prep Date:	**3/7/2016**	Analysis Date: **3/11/2016**			SeqNo: **1002598**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.54	0.0020	0.5000	0	108	70	130	0.530	20	

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**1603069-002FMSD**	SampType: **MSD**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-11**	Batch ID: **24115**			RunNo: **32754**					
Prep Date:	**3/7/2016**	Analysis Date: **3/11/2016**			SeqNo: **1002598**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.52	0.0060	0.5000	0	103	70	130	0.322	20	
Silver	0.11	0.0050	0.1000	0	109	70	130	0.799	20	

Sample ID	**1603069-001FMS**	SampType: **MS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-4**	Batch ID: **24115**			RunNo: **32774**					
Prep Date:	**3/7/2016**	Analysis Date: **3/14/2016**			SeqNo: **1004027**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.55	0.0060	0.5000	0	111	70	130			
Zinc	0.49	0.010	0.5000	0.01098	95.4	70	130			

Sample ID	**1603069-001FMSD**	SampType: **MSD**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-4**	Batch ID: **24115**			RunNo: **32774**					
Prep Date:	**3/7/2016**	Analysis Date: **3/14/2016**			SeqNo: **1004028**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.55	0.0060	0.5000	0	110	70	130	0.252	20	
Zinc	0.49	0.010	0.5000	0.01098	95.4	70	130	0.0348	20	

Sample ID	**1603069-001FMS**	SampType: **MS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-4**	Batch ID: **24115**			RunNo: **32774**					
Prep Date:	**3/7/2016**	Analysis Date: **3/14/2016**			SeqNo: **1004034**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	3.5	0.010	0.5000	2.976	111	70	130			
Manganese	2.0	0.010	0.5000	1.464	102	70	130			

Sample ID	**1603069-001FMSD**	SampType: **MSD**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-4**	Batch ID: **24115**			RunNo: **32774**					
Prep Date:	**3/7/2016**	Analysis Date: **3/14/2016**			SeqNo: **1004035**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	3.4	0.010	0.5000	2.976	90.2	70	130	0	20	
Manganese	1.9	0.010	0.5000	1.464	91.2	70	130	0	20	

Sample ID	**1603069-002FMS**	SampType: **MS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-11**	Batch ID: **24115**			RunNo: **32792**					
Prep Date:	**3/7/2016**	Analysis Date: **3/15/2016**			SeqNo: **1004801**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup
Project: Quarterly GW Sampling

Sample ID	**1603069-002FMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-11**	Batch ID:	**24115**		RunNo:	**32792**				
Prep Date:	**3/7/2016**	Analysis Date:	**3/15/2016**		SeqNo:	**1004801**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.56	0.0060	0.5000	0	113	70	130			
Zinc	0.52	0.010	0.5000	0.01773	99.8	70	130			

Sample ID	**1603069-002FMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-11**	Batch ID:	**24115**		RunNo:	**32792**				
Prep Date:	**3/7/2016**	Analysis Date:	**3/15/2016**		SeqNo:	**1004802**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.57	0.0060	0.5000	0	113	70	130	0.163	20	
Zinc	0.51	0.010	0.5000	0.01773	99.0	70	130	0.824	20	

Sample ID	**1603069-002FMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-11**	Batch ID:	**24115**		RunNo:	**32792**				
Prep Date:	**3/7/2016**	Analysis Date:	**3/15/2016**		SeqNo:	**1004970**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	4.5	0.010	0.5000	3.873	119	70	130			

Sample ID	**1603069-002FMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-11**	Batch ID:	**24115**		RunNo:	**32792**				
Prep Date:	**3/7/2016**	Analysis Date:	**3/15/2016**		SeqNo:	**1004971**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	4.4	0.010	0.5000	3.873	110	70	130	0.997	20	

Sample ID	**MB-24413**	SampType:	**MBLK**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**PBW**	Batch ID:	**24413**		RunNo:	**33054**				
Prep Date:	**3/24/2016**	Analysis Date:	**3/25/2016**		SeqNo:	**1014136**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID	**LCS-24413**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**LCSW**	Batch ID:	**24413**		RunNo:	**33054**				
Prep Date:	**3/24/2016**	Analysis Date:	**3/25/2016**		SeqNo:	**1014137**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.099	0.0050	0.1000	0	99.2	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**
01-Apr-16

Client: Western Refining Southwest, Gallup
Project: Quarterly GW Sampling

Sample ID	**LLLCS-24413**	SampType: **LCSLL**		TestCode: **EPA Method 200.7: Total Metals**						
Client ID:	**BatchQC**	Batch ID: **24413**		RunNo: **33054**						
Prep Date:	**3/24/2016**	Analysis Date: **3/25/2016**		SeqNo: **1014138**		Units: **mg/L**				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver		0.0053	0.0050	0.005000	0	106	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**1603069-006EMSLL**	SampType:	**MS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**MKTF-38**	Batch ID:	**C32805**		RunNo:	**32805**				
Prep Date:		Analysis Date:	**3/15/2016**		SeqNo:	**1005550**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.013	0.00050	0.01250	.00004740	102	70	130			
Selenium	0.025	0.0010	0.02500	0.003251	88.9	70	130			

Sample ID	**LCS**	SampType:	**LCS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**LCSW**	Batch ID:	**C32805**		RunNo:	**32805**				
Prep Date:		Analysis Date:	**3/15/2016**		SeqNo:	**1005551**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.3	85	115			
Lead	0.012	0.00050	0.01250	0	94.7	85	115			
Selenium	0.026	0.0010	0.02500	0	102	85	115			
Uranium	0.012	0.00050	0.01250	0	95.7	85	115			

Sample ID	**LLLCS**	SampType:	**LCSLL**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**BatchQC**	Batch ID:	**C32805**		RunNo:	**32805**				
Prep Date:		Analysis Date:	**3/15/2016**		SeqNo:	**1005552**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	105	50	150			
Lead	0.00049	0.00050	0.0005000	0	98.4	50	150			J
Selenium	0.0011	0.0010	0.001000	0	107	50	150			
Uranium	0.00047	0.00050	0.0005000	0	94.8	50	150			J

Sample ID	**MB**	SampType:	**MBLK**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**PBW**	Batch ID:	**C32805**		RunNo:	**32805**				
Prep Date:		Analysis Date:	**3/15/2016**		SeqNo:	**1005553**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**1603069-006EMSLL**	SampType:	**MS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**MKTF-38**	Batch ID:	**C32978**		RunNo:	**32978**				
Prep Date:		Analysis Date:	**3/22/2016**		SeqNo:	**1011948**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.001448	101	70	130			
Uranium	0.077	0.0025	0.06250	0.01199	105	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C32978**	RunNo: **32978**
Prep Date:	Analysis Date: **3/22/2016**	SeqNo: **1011965** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.5	85	115			
Lead	0.012	0.00050	0.01250	0	97.3	85	115			
Selenium	0.024	0.0010	0.02500	0	97.5	85	115			
Uranium	0.012	0.00050	0.01250	0	96.7	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C32978**	RunNo: **32978**
Prep Date:	Analysis Date: **3/22/2016**	SeqNo: **1011967** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	102	50	150			
Lead	0.00050	0.00050	0.0005000	0	100	50	150			
Selenium	0.00095	0.0010	0.001000	0	94.8	50	150			J
Uranium	0.00050	0.00050	0.0005000	0	99.8	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C32978**	RunNo: **32978**
Prep Date:	Analysis Date: **3/22/2016**	SeqNo: **1011969** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33051**	RunNo: **33051**
Prep Date:	Analysis Date: **3/24/2016**	SeqNo: **1014293** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.024	0.0010	0.02500	0	96.4	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33051**	RunNo: **33051**
Prep Date:	Analysis Date: **3/24/2016**	SeqNo: **1014294** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.00099	0.0010	0.001000	0	98.8	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**
01-Apr-16

Client: Western Refining Southwest, Gallup
Project: Quarterly GW Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33051**	RunNo: **33051**
Prep Date:	Analysis Date: **3/24/2016**	SeqNo: **1014295** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-24115**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**24115**	RunNo:	**32687**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000381**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-24115**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**24115**	RunNo:	**32687**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000384**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.7	85	115			
Lead	0.013	0.00050	0.01250	0	102	85	115			
Selenium	0.024	0.0010	0.02500	0	97.7	85	115			
Uranium	0.013	0.00050	0.01250	0	100	85	115			

Sample ID	**MSLLLCS-24115**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**24115**	RunNo:	**32687**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000387**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00083	0.0010	0.001000	0	83.0	50	150			J
Lead	0.00038	0.00050	0.0005000	0	76.7	50	150			J
Selenium	0.00078	0.0010	0.001000	0	78.3	50	150			J
Uranium	0.00042	0.00050	0.0005000	0	83.3	50	150			J

Sample ID	**1603069-003FMSLL**	SampType:	**MSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**MKTF-09**	Batch ID:	**24115**	RunNo:	**32777**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/14/2016**	SeqNo:	**1004627**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.017	0.0025	0.01250	0.003959	104	70	130			
Uranium	0.018	0.0025	0.01250	0.004784	109	70	130			

Sample ID	**1603069-005FMSDL**	SampType:	**MSDLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**MKTF-16**	Batch ID:	**24115**	RunNo:	**32777**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/14/2016**	SeqNo:	**1004629**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.017	0.0025	0.01250	0.003110	108	70	130	0.191	20	
Uranium	0.015	0.0025	0.01250	0.0006625	115	70	130	0.397	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **1603069-005FMSLL** SampType: **MSLL** TestCode: **200.8 ICPMS Metals:Total**

Client ID: **MKTF-16** Batch ID: **24115** RunNo: **32777**

Prep Date: **3/7/2016** Analysis Date: **3/14/2016** SeqNo: **1004630** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.017	0.0025	0.01250	0.003110	108	70	130			
Uranium	0.015	0.0025	0.01250	0.0006625	114	70	130			

Sample ID **1603069-003FMSLL** SampType: **MSLL** TestCode: **200.8 ICPMS Metals:Total**

Client ID: **MKTF-09** Batch ID: **24115** RunNo: **32777**

Prep Date: **3/7/2016** Analysis Date: **3/14/2016** SeqNo: **1004650** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.028	0.0050	0.02500	0.002050	105	70	130			
Selenium	0.026	0.0050	0.02500	0.002287	92.9	70	130			

Sample ID **1603069-005FMSDL** SampType: **MSDLL** TestCode: **200.8 ICPMS Metals:Total**

Client ID: **MKTF-16** Batch ID: **24115** RunNo: **32777**

Prep Date: **3/7/2016** Analysis Date: **3/14/2016** SeqNo: **1004653** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.034	0.0050	0.02500	0.009150	101	70	130	1.83	20	
Selenium	0.029	0.0050	0.02500	0.004865	95.3	70	130	1.98	20	

Sample ID **1603069-005FMSLL** SampType: **MSLL** TestCode: **200.8 ICPMS Metals:Total**

Client ID: **MKTF-16** Batch ID: **24115** RunNo: **32777**

Prep Date: **3/7/2016** Analysis Date: **3/14/2016** SeqNo: **1004654** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.035	0.0050	0.02500	0.009150	104	70	130			
Selenium	0.029	0.0050	0.02500	0.004865	97.6	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-24112**	SampType:	**mblk**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**24112**	RunNo:	**32641**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/8/2016**	SeqNo:	**998822**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-24112**	SampType:	**lcs**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**24112**	RunNo:	**32641**					
Prep Date:	**3/7/2016**	Analysis Date:	**3/8/2016**	SeqNo:	**998823**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	106	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **a32571**	RunNo: **32571**							
Prep Date:	Analysis Date: **3/3/2016**	SeqNo: **996508**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **a32571**	RunNo: **32571**							
Prep Date:	Analysis Date: **3/3/2016**	SeqNo: **996509**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.6	0.20	3.500	0	104	90	110			

Sample ID **1603069-001DMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **MKTF-4**	Batch ID: **a32571**	RunNo: **32571**							
Prep Date:	Analysis Date: **3/3/2016**	SeqNo: **996511**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	13	1.0	17.50	0	71.8	84.6	105			S

Sample ID **1603069-001DMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **MKTF-4**	Batch ID: **a32571**	RunNo: **32571**							
Prep Date:	Analysis Date: **3/3/2016**	SeqNo: **996512**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	12	1.0	17.50	0	70.6	84.6	105	1.68	20	S

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R32618**	RunNo: **32618**							
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997926**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R32618**	RunNo: **32618**							
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997927**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	101	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32618**	RunNo: **32618**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997927** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.9	90	110			
Bromide	2.4	0.10	2.500	0	96.2	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.5	90	110			
Sulfate	9.7	0.50	10.00	0	97.3	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32710**	RunNo: **32710**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1001872** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32710**	RunNo: **32710**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1001873** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.4	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB-24027**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **24027**	RunNo: **32536**
Prep Date: **3/2/2016**	Analysis Date: **3/3/2016**	SeqNo: **995952** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.86		1.000		86.4	70	141			

Sample ID **LCS-24027**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **24027**	RunNo: **32536**
Prep Date: **3/2/2016**	Analysis Date: **3/3/2016**	SeqNo: **995953** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.0	1.0	5.000	0	80.0	71.3	139			
Surr: DNOP	0.44		0.5000		88.4	70	141			

Sample ID **1603069-001BMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **MKTF-4**	Batch ID: **24027**	RunNo: **32536**
Prep Date: **3/2/2016**	Analysis Date: **3/3/2016**	SeqNo: **995955** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	8.3	1.0	5.000	3.636	93.7	59.4	160			
Surr: DNOP	0.46		0.5000		91.7	70	141			

Sample ID **1603069-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **MKTF-4**	Batch ID: **24027**	RunNo: **32536**
Prep Date: **3/2/2016**	Analysis Date: **3/3/2016**	SeqNo: **995956** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	7.9	1.0	5.000	3.636	86.1	59.4	160	4.64	20	
Surr: DNOP	0.44		0.5000		88.4	70	141	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBW**	Batch ID:	**A32557**	RunNo:	**32557**					
Prep Date:		Analysis Date:	**3/3/2016**	SeqNo:	**996055**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		90.1	49.5	130			

Sample ID	**2.5UG GRO LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSW**	Batch ID:	**A32557**	RunNo:	**32557**					
Prep Date:		Analysis Date:	**3/3/2016**	SeqNo:	**996056**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.49	0.050	0.5000	0	98.8	80	120			
Surr: BFB	20		20.00		102	49.5	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32609**	RunNo: **32609**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997685** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	112	70	130			
Toluene	21	1.0	20.00	0	104	70	130			
Chlorobenzene	22	1.0	20.00	0	110	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	104	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	98.1	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID **1603069-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-4**	Batch ID: **R32609**	RunNo: **32609**
Prep Date:	Analysis Date: **3/5/2016**	SeqNo: **997695** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	790	5.0	100.0	756.7	37.0	70	130			SE
Toluene	120	5.0	100.0	17.22	108	70	130			
Chlorobenzene	110	5.0	100.0	0	112	70	130			
1,1-Dichloroethene	110	5.0	100.0	14.41	98.4	70	130			
Trichloroethene (TCE)	98	5.0	100.0	0	97.5	70	130			
Surr: 1,2-Dichloroethane-d4	47		50.00		93.3	70	130			
Surr: 4-Bromofluorobenzene	44		50.00		88.2	70	130			
Surr: Dibromofluoromethane	48		50.00		95.9	70	130			
Surr: Toluene-d8	50		50.00		99.6	70	130			

Sample ID **1603069-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-4**	Batch ID: **R32609**	RunNo: **32609**
Prep Date:	Analysis Date: **3/5/2016**	SeqNo: **997696** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	780	5.0	100.0	756.7	23.0	70	130	1.78	20	SE
Toluene	120	5.0	100.0	17.22	98.1	70	130	7.87	20	
Chlorobenzene	110	5.0	100.0	0	107	70	130	5.34	20	
1,1-Dichloroethene	110	5.0	100.0	14.41	90.8	70	130	6.98	20	
Trichloroethene (TCE)	90	5.0	100.0	0	90.4	70	130	7.55	20	
Surr: 1,2-Dichloroethane-d4	44		50.00		88.0	70	130	0	0	
Surr: 4-Bromofluorobenzene	45		50.00		90.8	70	130	0	0	
Surr: Dibromofluoromethane	49		50.00		98.2	70	130	0	0	
Surr: Toluene-d8	47		50.00		94.3	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32609**	RunNo: **32609**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997709** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32609**	RunNo: **32609**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997709** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	0.31	3.0								J
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		112	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **mb-24000**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24000**	RunNo: **32558**
Prep Date: **3/1/2016**	Analysis Date: **3/3/2016**	SeqNo: **996116** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **mb-24000**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24000**	RunNo: **32558**
Prep Date: **3/1/2016**	Analysis Date: **3/3/2016**	SeqNo: **996116** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	220		200.0		109	4.63	113			
Surr: Phenol-d5	210		200.0		105	4.13	124			
Surr: 2,4,6-Tribromophenol	130		200.0		64.6	5.14	132			
Surr: Nitrobenzene-d5	110		100.0		107	9.13	140			
Surr: 2-Fluorobiphenyl	110		100.0		114	10.8	132			
Surr: 4-Terphenyl-d14	100		100.0		101	12.9	107			

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603069**

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**lcs-24000**	SampType:	**LCS**	TestCode:	**EPA Method 8270C: Semivolatiles**					
Client ID:	**LCSW**	Batch ID:	**24000**	RunNo:	**32558**					
Prep Date:	**3/1/2016**	Analysis Date:	**3/3/2016**	SeqNo:	**996117**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	91	10	100.0	0	91.0	40.2	107			
4-Chloro-3-methylphenol	180	10	200.0	0	88.4	48.2	107			
2-Chlorophenol	180	10	200.0	0	88.7	42.5	106			
1,4-Dichlorobenzene	90	10	100.0	0	89.5	31.6	111			
2,4-Dinitrotoluene	79	10	100.0	0	78.7	33.6	86.5			
N-Nitrosodi-n-propylamine	89	10	100.0	0	88.9	44	106			
4-Nitrophenol	140	10	200.0	0	69.4	25.5	109			
Pentachlorophenol	110	20	200.0	0	55.8	38.8	97.8			
Phenol	190	10	200.0	0	93.2	22.7	116			
Pyrene	81	10	100.0	0	81.0	29.3	138			
1,2,4-Trichlorobenzene	98	10	100.0	0	97.7	35.3	123			
Surr: 2-Fluorophenol	170		200.0		86.6	4.63	113			
Surr: Phenol-d5	190		200.0		93.2	4.13	124			
Surr: 2,4,6-Tribromophenol	140		200.0		67.8	5.14	132			
Surr: Nitrobenzene-d5	91		100.0		91.0	9.13	140			
Surr: 2-Fluorobiphenyl	92		100.0		92.2	10.8	132			
Surr: 4-Terphenyl-d14	80		100.0		79.9	12.9	107			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1603069** RcptNo: 1

Received by/date: AG 03/01/16

Logged By: **Ashley Gallegos** **3/1/2016 4:40:00 PM** AG

Completed By: **Ashley Gallegos** **3/1/2016 5:36:58 PM** AG

Reviewed By: LB 03/02/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	~~Yes~~ ☑	No ☑	
9. Was preservative added to bottles? For metals analysis Added 0.4ml to .0076, 4 ml HNO3 to .0076 for acceptable pH. Held for 24 hrs prior to analysis	Yes ☑	~~No~~ ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 18 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? YES
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: AG

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)
Accreditation: ☒ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1603049	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations/Anions	WQCC Metals	(Total & Dissolved)	Air Bubbles (Y or N)
2/29/16	0930	WATER	MKTF-4	40 mL VOA-6	HCL	-001			✓							✓					
				1 LITER AMBER-2	NEAT												✓				
				250 mL AMBER-1	NEAT				✓												
				125 mL PLASTIC-1	HNO_3													✓	✓		
				125 mL PLASTIC-1	H_2SO_4													✓			
				500 mL PLASTIC-1	HNO_3														✓		
				500 mL PLASTIC-1	NEAT														✓		
2/29/16	1050	WATER	MKTF-11	40 mL VOA-6	HCL	-002			✓							✓					
				1 LITER AMBER-1	NEAT												✓				
				250 mL AMBER-1	NEAT				✓												
				125 mL PLASTIC-1	HNO_3													✓	✓		
				125 mL PLASTIC-1	H_2SO_4													✓			

Date: 2/29/16 Time: 0725 Relinquished by: [signature]
Received by: [signature] Date: 3/1/16 Time: 1130

Date: 3/1/16 Time: 1640 Relinquished by: [signature]
Received by: [signature] Date: 03/01/16 Time: 1640

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations/Anions	WQCC Metals (Total & Dissolved)		Air Bubbles (Y or N)
						Analysis Request															
2/29/16	1050	WATER	MKTF-11	500 ML PLASTIC-1	HNO_3	1603009 -002													✓		
↓	↓ TP	↓	↓	500 ML PLASTIC-1	NEAT														✓		
2/29/16	1330 ~~1320~~	WATER	MKTF-9	40 ML VOA-6	HCL	-003			✓							✓					
				1 LITER AMBER-1	NEAT												✓				
				250 ML AMBER-1	NEAT				✓												
				125 ML PLASTIC-1	HNO_3													✓	✓		
				125 ML PLASTIC-1	H_2SO_4													✓			
				250ML PLASTIC-1	HNO_3														✓		
				500 ML PLASTIC-1	NEAT														✓		
—	—	WATER	TRIP BLANK	40 ML VOA-4	HCL	-004										✓					

Date:	Time:	Relinquished by:	Received by:	Date	Time
3/1/16	0725			3/1/16	1130
Date:	Time:	Relinquished by:	Received by:	Date	Time
3/1/16	1640		CARRIER 03/01/16		1640

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1603069	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations/Anions	WQCC Metals (Total & Dissolved)		Air Bubbles (Y or N)
2/29/16	1425	WATER	MKTF-16	40 ML VOA-6	HCL	-0045			✓							✓					
				1 LITER AMBER-1	NEAT												✓				
				250 ML AMBER-1	NEAT				✓												
				125 ML PLASTIC-1	HNO_3													✓	✓		
				125 ML PLASTIC-1	H_2SO_4													✓			
				500 ML PLASTIC-1	HNO_3														✓		
				500ML PLASTIC-1	NEAT														✓		
2/29/16	1620	WATER	MKTF-38	40 ML VOA-6	HCL	-0074			✓							✓					
				1 LITER AMBER-1	NEAT												✓				
				250 ML AMBER-1	NEAT				✓												
				125 ML PLASTIC-1	HNO_3													✓	✓		
				125 ML PLASTIC-1	H_2SO_4													✓			

Date: 3/1/16 Time: 0725 Relinquished by:
Received by: Date: 3/1/16 Time: 1130
Date: 3/1/16 Time: 1640 Relinquished by:
Received by: M Gallegos Date: 03/01/16 Time: 1640

Remarks:

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Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: WESTERN REFINING SW, INC. - GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING ROAD GALLUP NM 87301

Phone #: 505-722-0231

email or Fax#: CHERYL.JOHNSON@WNR.COM

QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)

Accreditation: ☐ NELAP ☐ Other

EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: QUARTERLY GW SAMPLING

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations/Anions	WQCC Metals	Total & Dissolved		Air Bubbles (Y or N)
29/16	1620	WATER	MKTF-38	500 ML PLASTIC-1	HNO_3	1603069-0076													✓			
↓	↓	↓	↓	500 ML PLASTIC-1	NEAT														✓			
29/16	1700	WATER	MKTF-10	40 ML VOA-6	HCL	-0087			✓							✓						
				1 LITER AMBER-1	NEAT												✓					
				250 ML AMBER-1	NEAT				✓													
				125 ML PLASTIC-1	HNO_3													✓	✓			
				125 ML PLASTIC-1	H_2SO_4													✓				
				500 ML PLASTIC-1	HNO_3														✓			
				500 ML PLASTIC-1	NEAT														✓			
—	—	WATER	TRIP BLANK	40 ML VOA-(4)	HCL	-0088										✓						

Date	Time	Relinquished by:	Received by:	Date	Time
3/1/16	0725			3/1/16	1:30
3/1/16	1640			03/01/16	1640

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

April 15, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: Quarterly GW Sampling OrderNo.: 1603278

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 3/5/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-39
Project: Quarterly GW Sampling
Collection Date: 3/3/2016 4:30:00 PM
Lab ID: 1603278-001 **Matrix:** AQUEOUS **Received Date:** 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	13	0.69	1.0		mg/L	1	3/8/2016 1:52:46 PM	24127
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/8/2016 1:52:46 PM	24127
Surr: DNOP	93.6	0	70-141		%Rec	1	3/8/2016 1:52:46 PM	24127
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.46	0.025	0.050		mg/L	1	3/7/2016 3:35:59 PM	A32624
Surr: BFB	292	0	49.5-130	S	%Rec	1	3/7/2016 3:35:59 PM	A32624
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.71	0.11	0.50		mg/L	5	3/7/2016 5:35:57 PM	R32638
Chloride	2900	14	250		mg/L	500	3/19/2016 3:48:15 AM	A32919
Bromide	1.0	0.16	0.50		mg/L	5	3/7/2016 5:35:57 PM	R32638
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5	H	mg/L	5	3/7/2016 5:35:57 PM	R32638
Sulfate	4.2	0.32	2.5		mg/L	5	3/7/2016 5:35:57 PM	R32638
Nitrate+Nitrite as N	ND	1.7	4.0		mg/L	20	3/8/2016 2:28:14 PM	R32663
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	11	0.066	0.10	*	mg/L	50	3/23/2016 5:30:04 PM	C33001
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 6:35:25 PM	C32891
Calcium	160	1.3	5.0		mg/L	5	3/18/2016 6:37:15 PM	C32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/18/2016 6:35:25 PM	C32891
Copper	ND	0.0040	0.0060		mg/L	1	3/18/2016 6:35:25 PM	C32891
Iron	11	0.45	1.0	*	mg/L	50	3/23/2016 5:30:04 PM	C33001
Magnesium	54	0.013	1.0		mg/L	1	3/18/2016 6:35:25 PM	C32891
Manganese	1.7	0.0016	0.010	*	mg/L	5	3/18/2016 6:37:15 PM	C32891
Potassium	7.2	0.18	1.0		mg/L	1	3/18/2016 6:35:25 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 6:35:25 PM	C32891
Sodium	2100	4.8	50		mg/L	50	3/23/2016 5:30:04 PM	C33001
Zinc	0.0092	0.0028	0.010	J	mg/L	1	3/18/2016 6:35:25 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	11	0.021	0.040	*	mg/L	20	3/21/2016 1:48:34 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 4:25:28 PM	24150
Chromium	ND	0.0022	0.0060		mg/L	1	3/18/2016 4:25:28 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 4:25:28 PM	24150
Iron	13	0.14	0.40	*	mg/L	20	3/21/2016 1:48:34 PM	24150
Manganese	1.9	0.030	0.040	*	mg/L	20	3/21/2016 1:48:34 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/18/2016 4:25:28 PM	24150
Zinc	0.011	0.0039	0.010		mg/L	1	3/18/2016 4:25:28 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0017	0.00065	0.010	J	mg/L	10	3/31/2016 2:35:55 PM	B33223

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-39
Project: Quarterly GW Sampling
Collection Date: 3/3/2016 4:30:00 PM
Lab ID: 1603278-001 **Matrix:** AQUEOUS **Received Date:** 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00039	0.00013	0.0025	J	mg/L	5	3/29/2016 5:51:54 PM	B33154
Selenium	0.0066	0.0019	0.010	J	mg/L	10	3/31/2016 2:35:55 PM	B33223
Uranium	0.000093	0.000024	0.0025	J	mg/L	5	3/29/2016 5:51:54 PM	B33154
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.0029	0.010		mg/L	10	3/24/2016 2:35:26 PM	24248
Lead	0.010	0.00024	0.0025		mg/L	5	3/24/2016 2:32:25 PM	24248
Selenium	0.0071	0.0012	0.010	J	mg/L	10	3/24/2016 2:35:26 PM	24248
Uranium	0.00068	0.000025	0.0025	J	mg/L	5	3/24/2016 2:32:25 PM	24248
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/10/2016 11:36:10 AM	24156
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Aniline	ND	9.8	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Anthracene	ND	6.6	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/13/2016 9:19:15 PM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/13/2016 9:19:15 PM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Carbazole	28	7.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/13/2016 9:19:15 PM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/13/2016 9:19:15 PM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Chrysene	ND	6.6	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/13/2016 9:19:15 PM	24121

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-39
Project: Quarterly GW Sampling
Collection Date: 3/3/2016 4:30:00 PM
Lab ID: 1603278-001 **Matrix:** AQUEOUS **Received Date:** 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/13/2016 9:19:15 PM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/13/2016 9:19:15 PM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/13/2016 9:19:15 PM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/13/2016 9:19:15 PM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/13/2016 9:19:15 PM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/13/2016 9:19:15 PM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/13/2016 9:19:15 PM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/13/2016 9:19:15 PM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/13/2016 9:19:15 PM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Fluorene	10	7.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Isophorone	ND	8.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
1-Methylnaphthalene	110	6.8	10		µg/L	1	3/13/2016 9:19:15 PM	24121
2-Methylnaphthalene	37	7.0	10		µg/L	1	3/13/2016 9:19:15 PM	24121
2-Methylphenol	ND	8.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/13/2016 9:19:15 PM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Naphthalene	45	5.9	10		µg/L	1	3/13/2016 9:19:15 PM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/13/2016 9:19:15 PM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/13/2016 9:19:15 PM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/13/2016 9:19:15 PM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/13/2016 9:19:15 PM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/13/2016 9:19:15 PM	24121
Phenanthrene	7.9	6.8	10	J	µg/L	1	3/13/2016 9:19:15 PM	24121
Phenol	ND	5.1	10		µg/L	1	3/13/2016 9:19:15 PM	24121

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-39
Project: Quarterly GW Sampling
Collection Date: 3/3/2016 4:30:00 PM
Lab ID: 1603278-001 **Matrix:** AQUEOUS **Received Date:** 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	5.5	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Pyridine	ND	6.7	10		µg/L	1	3/13/2016 9:19:15 PM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/13/2016 9:19:15 PM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/13/2016 9:19:15 PM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/13/2016 9:19:15 PM	24121
Surr: 2-Fluorophenol	41.6	0	4.63-113		%Rec	1	3/13/2016 9:19:15 PM	24121
Surr: Phenol-d5	37.2	0	4.13-124		%Rec	1	3/13/2016 9:19:15 PM	24121
Surr: 2,4,6-Tribromophenol	92.0	0	5.14-132		%Rec	1	3/13/2016 9:19:15 PM	24121
Surr: Nitrobenzene-d5	68.9	0	9.13-140		%Rec	1	3/13/2016 9:19:15 PM	24121
Surr: 2-Fluorobiphenyl	70.9	0	10.8-132		%Rec	1	3/13/2016 9:19:15 PM	24121
Surr: 4-Terphenyl-d14	63.6	0	12.9-107		%Rec	1	3/13/2016 9:19:15 PM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	19	0.096	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Toluene	ND	0.089	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Ethylbenzene	64	0.11	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,2,4-Trimethylbenzene	66	0.10	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Naphthalene	73	0.083	2.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1-Methylnaphthalene	140	2.0	40		µg/L	10	3/8/2016 10:25:48 PM	R32660
2-Methylnaphthalene	53	0.16	4.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Acetone	ND	0.88	10		µg/L	1	3/8/2016 10:54:02 PM	R32660
Bromobenzene	ND	0.080	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Bromoform	ND	0.10	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Bromomethane	ND	0.78	3.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
2-Butanone	ND	0.32	10		µg/L	1	3/8/2016 10:54:02 PM	R32660
Carbon disulfide	ND	0.60	10		µg/L	1	3/8/2016 10:54:02 PM	R32660
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Chloroethane	ND	0.15	2.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Chloroform	0.17	0.089	1.0	J	µg/L	1	3/8/2016 10:54:02 PM	R32660
Chloromethane	ND	0.21	3.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
cis-1,2-DCE	0.78	0.12	1.0	J	µg/L	1	3/8/2016 10:54:02 PM	R32660
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-39
Project: Quarterly GW Sampling
Collection Date: 3/3/2016 4:30:00 PM
Lab ID: 1603278-001 **Matrix:** AQUEOUS **Received Date:** 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Dibromomethane	ND	0.12	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,1-Dichloroethane	1.1	0.11	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,1-Dichloroethene	0.32	0.076	1.0	J	µg/L	1	3/8/2016 10:54:02 PM	R32660
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
2-Hexanone	ND	0.36	10		µg/L	1	3/8/2016 10:54:02 PM	R32660
Isopropylbenzene	24	0.098	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
4-Isopropyltoluene	7.4	0.14	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/8/2016 10:54:02 PM	R32660
Methylene Chloride	0.19	0.063	3.0	J	µg/L	1	3/8/2016 10:54:02 PM	R32660
n-Butylbenzene	7.4	0.16	3.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
n-Propylbenzene	30	0.13	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
sec-Butylbenzene	13	0.11	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Styrene	ND	0.095	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
tert-Butylbenzene	0.36	0.096	1.0	J	µg/L	1	3/8/2016 10:54:02 PM	R32660
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Vinyl chloride	2.4	0.063	1.0		µg/L	1	3/8/2016 10:54:02 PM	R32660
Xylenes, Total	0.69	0.32	1.5	J	µg/L	1	3/8/2016 10:54:02 PM	R32660
Surr: 1,2-Dichloroethane-d4	92.9	0	70-130		%Rec	1	3/8/2016 10:54:02 PM	R32660

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-39
Project: Quarterly GW Sampling
Collection Date: 3/3/2016 4:30:00 PM
Lab ID: 1603278-001
Matrix: AQUEOUS
Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 4-Bromofluorobenzene	116	0	70-130		%Rec	1	3/8/2016 10:54:02 PM	R32660
Surr: Dibromofluoromethane	91.1	0	70-130		%Rec	1	3/8/2016 10:54:02 PM	R32660
Surr: Toluene-d8	102	0	70-130		%Rec	1	3/8/2016 10:54:02 PM	R32660

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-13
Project: Quarterly GW Sampling
Collection Date: 3/4/2016 11:00:00 AM
Lab ID: 1603278-003
Matrix: AQUEOUS
Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/8/2016 2:56:38 PM	24127
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/8/2016 2:56:38 PM	24127
Surr: DNOP	95.9	0	70-141		%Rec	1	3/8/2016 2:56:38 PM	24127
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.045	0.025	0.050	J	mg/L	1	3/8/2016 12:58:07 PM	A32657
Surr: BFB	90.7	0	49.5-130		%Rec	1	3/8/2016 12:58:07 PM	A32657
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.018	0.0013	0.0020		mg/L	1	3/18/2016 6:39:02 PM	C32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 6:39:02 PM	C32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/18/2016 6:39:02 PM	C32891
Copper	0.0053	0.0040	0.0060	J	mg/L	1	3/23/2016 5:31:52 PM	C33001
Iron	ND	0.0091	0.020		mg/L	1	3/18/2016 6:39:02 PM	C32891
Manganese	0.019	0.00032	0.0020		mg/L	1	3/18/2016 6:39:02 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 6:39:02 PM	C32891
Zinc	0.0093	0.0028	0.010	J	mg/L	1	3/18/2016 6:39:02 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.018	0.0011	0.0020		mg/L	1	3/18/2016 4:35:13 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 4:35:13 PM	24150
Chromium	ND	0.0022	0.0060		mg/L	1	3/18/2016 4:35:13 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 4:35:13 PM	24150
Iron	ND	0.0072	0.020		mg/L	1	3/18/2016 4:35:13 PM	24150
Manganese	0.020	0.0015	0.0020		mg/L	1	3/18/2016 4:35:13 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/18/2016 4:35:13 PM	24150
Zinc	ND	0.0039	0.010		mg/L	1	3/18/2016 4:35:13 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0012	0.000065	0.0010		mg/L	1	3/28/2016 8:34:14 PM	C33120
Lead	ND	0.000026	0.00050		mg/L	1	3/28/2016 8:34:14 PM	C33120
Selenium	0.0011	0.00097	0.0050	J	mg/L	5	4/6/2016 4:33:33 PM	A33361
Uranium	0.017	0.0000048	0.00050		mg/L	1	3/28/2016 8:34:14 PM	C33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0010	0.00029	0.0010		mg/L	1	3/23/2016 5:35:23 PM	24248
Lead	ND	0.00024	0.0025		mg/L	5	3/24/2016 2:38:26 PM	24248
Selenium	0.0025	0.00062	0.0050	J	mg/L	5	3/24/2016 2:38:26 PM	24248
Uranium	0.016	0.000025	0.0025		mg/L	5	3/24/2016 2:38:26 PM	24248
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/10/2016 11:38:14 AM	24156

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Hall Environmental Analysis Laboratory, Inc.

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Collection Date: 3/4/2016 11:00:00 AM
Lab ID: 1603278-003 **Matrix:** AQUEOUS **Received Date:** 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Toluene	ND	0.089	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Methyl tert-butyl ether (MTBE)	35	0.21	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,2-Dichloroethane (EDC)	0.80	0.053	1.0	J	µg/L	1	3/9/2016 1:15:19 AM	R32660
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Naphthalene	ND	0.083	2.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Acetone	ND	0.88	10		µg/L	1	3/9/2016 1:15:19 AM	R32660
Bromobenzene	ND	0.080	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Bromoform	ND	0.10	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Bromomethane	ND	0.78	3.0		µg/L	1	3/10/2016 6:11:25 PM	R32729
2-Butanone	ND	0.32	10		µg/L	1	3/9/2016 1:15:19 AM	R32660
Carbon disulfide	ND	0.60	10		µg/L	1	3/9/2016 1:15:19 AM	R32660
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Chloroethane	ND	0.15	2.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Chloroform	ND	0.089	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Chloromethane	ND	0.21	3.0		µg/L	1	3/10/2016 6:11:25 PM	R32729
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Dibromomethane	ND	0.12	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/9/2016 1:15:19 AM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-13
Project: Quarterly GW Sampling
Collection Date: 3/4/2016 11:00:00 AM
Lab ID: 1603278-003
Matrix: AQUEOUS
Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
2-Hexanone	ND	0.36	10		µg/L	1	3/9/2016 1:15:19 AM	R32660
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/9/2016 1:15:19 AM	R32660
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Styrene	ND	0.095	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/9/2016 1:15:19 AM	R32660
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/9/2016 1:15:19 AM	R32660
Surr: 1,2-Dichloroethane-d4	99.6	0	70-130		%Rec	1	3/9/2016 1:15:19 AM	R32660
Surr: 4-Bromofluorobenzene	104	0	70-130		%Rec	1	3/9/2016 1:15:19 AM	R32660
Surr: Dibromofluoromethane	94.9	0	70-130		%Rec	1	3/9/2016 1:15:19 AM	R32660
Surr: Toluene-d8	97.6	0	70-130		%Rec	1	3/9/2016 1:15:19 AM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-14
Project: Quarterly GW Sampling
Collection Date: 3/4/2016 12:20:00 PM
Lab ID: 1603278-004
Matrix: AQUEOUS
Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	2.9	0.69	1.0		mg/L	1	3/8/2016 3:17:59 PM	24127
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/8/2016 3:17:59 PM	24127
Surr: DNOP	90.7	0	70-141		%Rec	1	3/8/2016 3:17:59 PM	24127
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	27	0.51	1.0		mg/L	20	3/7/2016 4:25:10 PM	A32624
Surr: BFB	102	0	49.5-130		%Rec	20	3/7/2016 4:25:10 PM	A32624
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	1.9	0.0066	0.010		mg/L	5	3/18/2016 6:44:40 PM	C32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 6:43:00 PM	C32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/18/2016 6:43:00 PM	C32891
Copper	ND	0.0040	0.0060		mg/L	1	3/18/2016 6:43:00 PM	C32891
Iron	4.3	0.045	0.10	*	mg/L	5	3/18/2016 6:44:40 PM	C32891
Manganese	2.1	0.0016	0.010	*	mg/L	5	3/18/2016 6:44:40 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 6:43:00 PM	C32891
Zinc	0.010	0.0028	0.010		mg/L	1	3/18/2016 6:43:00 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	1.9	0.0053	0.010		mg/L	5	3/21/2016 1:50:40 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 4:37:15 PM	24150
Chromium	ND	0.0022	0.0060		mg/L	1	3/18/2016 4:37:15 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 4:37:15 PM	24150
Iron	4.6	0.036	0.10	*	mg/L	5	3/21/2016 1:50:40 PM	24150
Manganese	2.0	0.0076	0.010	*	mg/L	5	3/21/2016 1:50:40 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/18/2016 4:37:15 PM	24150
Zinc	ND	0.0039	0.010		mg/L	1	3/18/2016 4:37:15 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0082	0.000065	0.0010		mg/L	1	3/28/2016 8:43:29 PM	C33120
Lead	0.00012	0.000026	0.00050	J	mg/L	1	3/28/2016 8:43:29 PM	C33120
Selenium	0.0048	0.00097	0.0050	J	mg/L	5	4/6/2016 4:36:36 PM	A33361
Uranium	0.0065	0.0000048	0.00050		mg/L	1	3/28/2016 8:43:29 PM	C33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0078	0.00029	0.0010		mg/L	1	3/23/2016 5:38:24 PM	24248
Lead	ND	0.00024	0.0025		mg/L	5	3/24/2016 2:41:27 PM	24248
Selenium	0.0062	0.0012	0.010	J	mg/L	10	3/24/2016 2:50:32 PM	24248
Uranium	0.0060	0.000025	0.0025		mg/L	5	3/24/2016 2:41:27 PM	24248
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000054	0.000053	0.00020	J	mg/L	1	3/10/2016 11:40:19 AM	24156

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-14
Project: Quarterly GW Sampling
Collection Date: 3/4/2016 12:20:00 PM
Lab ID: 1603278-004 **Matrix:** AQUEOUS **Received Date:** 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	6500	48	500		µg/L	500	3/9/2016 1:43:30 AM	R32660
Toluene	ND	4.5	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Ethylbenzene	230	5.6	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Methyl tert-butyl ether (MTBE)	680	11	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,2,4-Trimethylbenzene	ND	5.2	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,3,5-Trimethylbenzene	ND	5.8	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,2-Dichloroethane (EDC)	ND	2.6	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,2-Dibromoethane (EDB)	ND	5.6	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Naphthalene	17	4.2	100	J	µg/L	50	3/9/2016 2:11:45 AM	R32660
1-Methylnaphthalene	30	10	200	J	µg/L	50	3/9/2016 2:11:45 AM	R32660
2-Methylnaphthalene	ND	7.9	200		µg/L	50	3/9/2016 2:11:45 AM	R32660
Acetone	ND	44	500		µg/L	50	3/9/2016 2:11:45 AM	R32660
Bromobenzene	ND	4.0	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Bromodichloromethane	ND	4.9	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Bromoform	ND	5.1	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Bromomethane	ND	39	150		µg/L	50	3/10/2016 5:13:55 PM	R32729
2-Butanone	ND	16	500		µg/L	50	3/9/2016 2:11:45 AM	R32660
Carbon disulfide	ND	30	500		µg/L	50	3/9/2016 2:11:45 AM	R32660
Carbon Tetrachloride	ND	5.4	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Chlorobenzene	ND	5.2	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Chloroethane	ND	7.3	100		µg/L	50	3/9/2016 2:11:45 AM	R32660
Chloroform	ND	4.4	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Chloromethane	ND	11	150		µg/L	50	3/10/2016 5:13:55 PM	R32729
2-Chlorotoluene	ND	20	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
4-Chlorotoluene	ND	6.4	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
cis-1,2-DCE	ND	6.2	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
cis-1,3-Dichloropropene	ND	5.0	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,2-Dibromo-3-chloropropane	ND	7.7	100		µg/L	50	3/9/2016 2:11:45 AM	R32660
Dibromochloromethane	ND	4.3	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Dibromomethane	ND	6.0	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,2-Dichlorobenzene	ND	20	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,3-Dichlorobenzene	ND	7.2	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,4-Dichlorobenzene	ND	7.1	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Dichlorodifluoromethane	ND	16	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,1-Dichloroethane	ND	5.4	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,1-Dichloroethene	ND	3.8	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,2-Dichloropropane	ND	2.4	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,3-Dichloropropane	ND	7.8	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
2,2-Dichloropropane	ND	6.0	100		µg/L	50	3/9/2016 2:11:45 AM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-14
Project: Quarterly GW Sampling
Collection Date: 3/4/2016 12:20:00 PM
Lab ID: 1603278-004 **Matrix:** AQUEOUS **Received Date:** 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,1-Dichloropropene	ND	6.7	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Hexachlorobutadiene	ND	9.9	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
2-Hexanone	ND	18	500		µg/L	50	3/9/2016 2:11:45 AM	R32660
Isopropylbenzene	ND	4.9	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
4-Isopropyltoluene	ND	7.0	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
4-Methyl-2-pentanone	ND	7.5	500		µg/L	50	3/9/2016 2:11:45 AM	R32660
Methylene Chloride	11	3.1	150	J	µg/L	50	3/9/2016 2:11:45 AM	R32660
n-Butylbenzene	ND	8.0	150		µg/L	50	3/9/2016 2:11:45 AM	R32660
n-Propylbenzene	ND	6.6	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
sec-Butylbenzene	ND	5.4	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Styrene	ND	4.8	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
tert-Butylbenzene	ND	4.8	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,1,1,2-Tetrachloroethane	ND	5.6	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,1,2,2-Tetrachloroethane	ND	5.3	100		µg/L	50	3/9/2016 2:11:45 AM	R32660
Tetrachloroethene (PCE)	ND	7.6	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
trans-1,2-DCE	ND	20	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
trans-1,3-Dichloropropene	ND	4.2	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,2,3-Trichlorobenzene	ND	5.6	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,2,4-Trichlorobenzene	ND	6.6	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,1,1-Trichloroethane	ND	3.2	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,1,2-Trichloroethane	ND	3.8	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Trichloroethene (TCE)	ND	8.8	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Trichlorofluoromethane	ND	4.4	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
1,2,3-Trichloropropane	ND	5.6	100		µg/L	50	3/9/2016 2:11:45 AM	R32660
Vinyl chloride	ND	3.2	50		µg/L	50	3/9/2016 2:11:45 AM	R32660
Xylenes, Total	ND	16	75		µg/L	50	3/9/2016 2:11:45 AM	R32660
Surr: 1,2-Dichloroethane-d4	93.2	0	70-130		%Rec	50	3/9/2016 2:11:45 AM	R32660
Surr: 4-Bromofluorobenzene	107	0	70-130		%Rec	50	3/9/2016 2:11:45 AM	R32660
Surr: Dibromofluoromethane	92.7	0	70-130		%Rec	50	3/9/2016 2:11:45 AM	R32660
Surr: Toluene-d8	105	0	70-130		%Rec	50	3/9/2016 2:11:45 AM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-29
Project: Quarterly GW Sampling
Collection Date: 3/4/2016 1:15:00 PM
Lab ID: 1603278-005
Matrix: AQUEOUS
Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/8/2016 3:39:10 PM	24127
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/8/2016 3:39:10 PM	24127
Surr: DNOP	95.1	0	70-141		%Rec	1	3/8/2016 3:39:10 PM	24127
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	4.2	0.13	0.25		mg/L	5	3/7/2016 5:39:14 PM	A32624
Surr: BFB	92.3	0	49.5-130		%Rec	5	3/7/2016 5:39:14 PM	A32624
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.063	0.0013	0.0020		mg/L	1	3/18/2016 6:46:40 PM	C32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 6:46:40 PM	C32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/18/2016 6:46:40 PM	C32891
Copper	ND	0.0040	0.0060		mg/L	1	3/23/2016 5:33:54 PM	C33001
Iron	0.34	0.0091	0.020	*	mg/L	1	3/18/2016 6:46:40 PM	C32891
Manganese	0.31	0.00032	0.0020	*	mg/L	1	3/18/2016 6:46:40 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 6:46:40 PM	C32891
Zinc	0.015	0.0028	0.010		mg/L	1	3/18/2016 6:46:40 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.064	0.0011	0.0020		mg/L	1	3/18/2016 4:38:53 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 4:38:53 PM	24150
Chromium	ND	0.0022	0.0060		mg/L	1	3/18/2016 4:38:53 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 4:38:53 PM	24150
Iron	0.38	0.0072	0.020	*	mg/L	1	3/18/2016 4:38:53 PM	24150
Manganese	0.32	0.0015	0.0020	*	mg/L	1	3/18/2016 4:38:53 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/18/2016 4:38:53 PM	24150
Zinc	ND	0.0039	0.010		mg/L	1	3/18/2016 4:38:53 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0015	0.000065	0.0010		mg/L	1	3/28/2016 8:46:33 PM	C33120
Lead	ND	0.000026	0.00050		mg/L	1	3/28/2016 8:46:33 PM	C33120
Selenium	0.0031	0.00097	0.0050	J	mg/L	5	3/29/2016 5:54:57 PM	B33154
Uranium	0.049	0.000024	0.0025	*	mg/L	5	3/29/2016 5:54:57 PM	B33154
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0015	0.00029	0.0010		mg/L	1	3/23/2016 5:41:24 PM	24248
Lead	ND	0.00024	0.0025		mg/L	5	3/24/2016 2:53:33 PM	24248
Selenium	0.0029	0.00062	0.0050	J	mg/L	5	3/24/2016 2:53:33 PM	24248
Uranium	0.053	0.000025	0.0025	*	mg/L	5	3/24/2016 2:53:33 PM	24248
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/10/2016 11:42:23 AM	24156

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Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-29
Project: Quarterly GW Sampling
Collection Date: 3/4/2016 1:15:00 PM
Lab ID: 1603278-005 **Matrix:** AQUEOUS **Received Date:** 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.48	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Toluene	ND	0.45	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Ethylbenzene	ND	0.56	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Methyl tert-butyl ether (MTBE)	3200	11	50		µg/L	50	3/9/2016 2:39:56 AM	R32660
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,2-Dichloroethane (EDC)	1.6	0.26	5.0	J	µg/L	5	3/9/2016 3:08:10 AM	R32660
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Naphthalene	ND	0.42	10		µg/L	5	3/9/2016 3:08:10 AM	R32660
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/9/2016 3:08:10 AM	R32660
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/9/2016 3:08:10 AM	R32660
Acetone	ND	4.4	50		µg/L	5	3/9/2016 3:08:10 AM	R32660
Bromobenzene	ND	0.40	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Bromoform	ND	0.51	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Bromomethane	ND	3.9	15		µg/L	5	3/10/2016 5:42:31 PM	R32729
2-Butanone	ND	1.6	50		µg/L	5	3/9/2016 3:08:10 AM	R32660
Carbon disulfide	ND	3.0	50		µg/L	5	3/9/2016 3:08:10 AM	R32660
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Chloroethane	ND	0.73	10		µg/L	5	3/9/2016 3:08:10 AM	R32660
Chloroform	ND	0.44	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Chloromethane	ND	1.1	15		µg/L	5	3/10/2016 5:42:31 PM	R32729
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/9/2016 3:08:10 AM	R32660
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Dibromomethane	ND	0.60	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/9/2016 3:08:10 AM	R32660

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-29
Project: Quarterly GW Sampling
Collection Date: 3/4/2016 1:15:00 PM
Lab ID: 1603278-005 **Matrix:** AQUEOUS **Received Date:** 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
2-Hexanone	ND	1.8	50		µg/L	5	3/9/2016 3:08:10 AM	R32660
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/9/2016 3:08:10 AM	R32660
Methylene Chloride	1.1	0.31	15	J	µg/L	5	3/9/2016 3:08:10 AM	R32660
n-Butylbenzene	ND	0.80	15		µg/L	5	3/9/2016 3:08:10 AM	R32660
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Styrene	ND	0.48	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/9/2016 3:08:10 AM	R32660
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/9/2016 3:08:10 AM	R32660
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/9/2016 3:08:10 AM	R32660
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/9/2016 3:08:10 AM	R32660
Surr: 1,2-Dichloroethane-d4	93.5	0	70-130		%Rec	5	3/9/2016 3:08:10 AM	R32660
Surr: 4-Bromofluorobenzene	106	0	70-130		%Rec	5	3/9/2016 3:08:10 AM	R32660
Surr: Dibromofluoromethane	93.0	0	70-130		%Rec	5	3/9/2016 3:08:10 AM	R32660
Surr: Toluene-d8	102	0	70-130		%Rec	5	3/9/2016 3:08:10 AM	R32660

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1603278-006
Matrix: TRIP BLANK
Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Toluene	ND	0.089	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Naphthalene	ND	0.083	2.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Acetone	ND	0.88	10		µg/L	1	3/9/2016 3:36:25 AM	R32660
Bromobenzene	ND	0.080	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Bromoform	ND	0.10	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Bromomethane	ND	0.78	3.0		µg/L	1	3/10/2016 6:40:15 PM	R32729
2-Butanone	ND	0.32	10		µg/L	1	3/9/2016 3:36:25 AM	R32660
Carbon disulfide	ND	0.60	10		µg/L	1	3/9/2016 3:36:25 AM	R32660
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Chloroethane	ND	0.15	2.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Chloroform	ND	0.089	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Chloromethane	ND	0.21	3.0		µg/L	1	3/10/2016 6:40:15 PM	R32729
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Dibromomethane	ND	0.12	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/9/2016 3:36:25 AM	R32660

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Qualifiers:

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Quarterly GW Sampling
Collection Date:
Lab ID: 1603278-006
Matrix: TRIP BLANK
Received Date: 3/5/2016 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
2-Hexanone	ND	0.36	10		µg/L	1	3/9/2016 3:36:25 AM	R32660
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/9/2016 3:36:25 AM	R32660
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Styrene	ND	0.095	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/9/2016 3:36:25 AM	R32660
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/9/2016 3:36:25 AM	R32660
Surr: 1,2-Dichloroethane-d4	90.2	0	70-130		%Rec	1	3/9/2016 3:36:25 AM	R32660
Surr: 4-Bromofluorobenzene	108	0	70-130		%Rec	1	3/9/2016 3:36:25 AM	R32660
Surr: Dibromofluoromethane	89.7	0	70-130		%Rec	1	3/9/2016 3:36:25 AM	R32660
Surr: Toluene-d8	96.0	0	70-130		%Rec	1	3/9/2016 3:36:25 AM	R32660

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB-C**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008301** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008302** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.1	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Calcium	50	1.0	50.00	0	99.6	85	115			
Chromium	0.49	0.0060	0.5000	0	97.0	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.49	0.020	0.5000	0	98.4	85	115			
Magnesium	51	1.0	50.00	0	102	85	115			
Manganese	0.49	0.0020	0.5000	0	97.8	85	115			
Potassium	50	1.0	50.00	0	99.4	85	115			
Zinc	0.48	0.010	0.5000	0	96.3	85	115			

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008303** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0021	0.0020	0.002000	0	103	50	150			
Cadmium	0.0020	0.0020	0.002000	0	99.5	50	150			J
Calcium	0.50	1.0	0.5000	0	99.4	50	150			J
Chromium	0.0053	0.0060	0.006000	0	87.8	50	150			J
Copper	0.0068	0.0060	0.006000	0	114	50	150			
Iron	0.021	0.020	0.02000	0	103	50	150			
Magnesium	0.51	1.0	0.5000	0	102	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008303** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	0.0021	0.0020	0.002000	0	104	50	150			
Potassium	0.58	1.0	0.5000	0	115	50	150			J
Silver	0.0038	0.0050	0.005000	0	76.2	50	150			J
Zinc	0.0050	0.010	0.005000	0	100	50	150			J

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008305** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	101	85	115			

Sample ID **MB-C**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C33001**	RunNo: **33001**
Prep Date:	Analysis Date: **3/23/2016**	SeqNo: **1012812** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Copper	ND	0.0060								
Iron	ND	0.020								
Sodium	ND	1.0								

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C33001**	RunNo: **33001**
Prep Date:	Analysis Date: **3/23/2016**	SeqNo: **1012813** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.5	85	115			
Copper	0.48	0.0060	0.5000	0	95.4	85	115			
Iron	0.49	0.020	0.5000	0	98.0	85	115			
Sodium	50	1.0	50.00	0	99.6	85	115			

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C33001**	RunNo: **33001**
Prep Date:	Analysis Date: **3/23/2016**	SeqNo: **1012814** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0026	0.0020	0.002000	0	130	50	150			
Copper	0.0074	0.0060	0.006000	0	124	50	150			
Iron	0.022	0.020	0.02000	0	108	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**LLLCS-C**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**C33001**	RunNo:	**33001**					
Prep Date:		Analysis Date:	**3/23/2016**	SeqNo:	**1012814**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	0.57	1.0	0.5000	0	115	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup
Project: Quarterly GW Sampling

Sample ID	**MB-24150**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**24150**	RunNo:	**32831**					
Prep Date:	**3/9/2016**	Analysis Date:	**3/16/2016**	SeqNo:	**1006645**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	**LCS-24150**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID:	**24150**	RunNo:	**32831**					
Prep Date:	**3/9/2016**	Analysis Date:	**3/16/2016**	SeqNo:	**1006646**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.4	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	98.4	85	115			
Iron	0.49	0.020	0.5000	0	97.3	85	115			
Manganese	0.49	0.0020	0.5000	0	97.9	85	115			
Silver	0.094	0.0050	0.1000	0	93.7	85	115			
Zinc	0.50	0.010	0.5000	0	99.3	85	115			

Sample ID	**LLLCS-24150**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID:	**24150**	RunNo:	**32831**					
Prep Date:	**3/9/2016**	Analysis Date:	**3/16/2016**	SeqNo:	**1006647**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0016	0.0020	0.002000	0	80.5	50	150			J
Cadmium	0.0019	0.0020	0.002000	0	96.0	50	150			J
Chromium	0.0074	0.0060	0.006000	0	123	50	150			
Iron	0.022	0.020	0.02000	0	110	50	150			
Manganese	0.0019	0.0020	0.002000	0	93.0	50	150			J
Silver	0.0043	0.0050	0.005000	0	86.2	50	150			J
Zinc	0.0061	0.010	0.005000	0	122	50	150			J

Sample ID	**MB-24150**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**24150**	RunNo:	**32891**					
Prep Date:	**3/9/2016**	Analysis Date:	**3/18/2016**	SeqNo:	**1008286**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**LCS-24150**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**LCSW**	Batch ID:	**24150**		RunNo:	**32891**				
Prep Date:	**3/9/2016**	Analysis Date:	**3/18/2016**		SeqNo:	**1008287**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.48	0.0060	0.5000	0	96.8	85	115			

Sample ID	**LLLCS-24150**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**BatchQC**	Batch ID:	**24150**		RunNo:	**32891**				
Prep Date:	**3/9/2016**	Analysis Date:	**3/18/2016**		SeqNo:	**1008288**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0058	0.0060	0.006000	0	97.3	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup
Project: Quarterly GW Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C33120**	RunNo: **33120**
Prep Date:	Analysis Date: **3/28/2016**	SeqNo: **1016768** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.5	85	115			
Lead	0.012	0.00050	0.01250	0	98.1	85	115			
Uranium	0.012	0.00050	0.01250	0	95.1	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C33120**	RunNo: **33120**
Prep Date:	Analysis Date: **3/28/2016**	SeqNo: **1016770** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	101	50	150			
Lead	0.00051	0.00050	0.0005000	0	103	50	150			
Uranium	0.00048	0.00050	0.0005000	0	96.8	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C33120**	RunNo: **33120**
Prep Date:	Analysis Date: **3/28/2016**	SeqNo: **1016772** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Uranium	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33154**	RunNo: **33154**
Prep Date:	Analysis Date: **3/29/2016**	SeqNo: **1018089** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	95.4	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.011	0.00050	0.01250	0	91.8	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33154**	RunNo: **33154**
Prep Date:	Analysis Date: **3/29/2016**	SeqNo: **1018090** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00050	0.00050	0.0005000	0	100	50	150			
Selenium	0.00095	0.0010	0.001000	0	94.9	50	150			J
Uranium	0.00046	0.00050	0.0005000	0	91.1	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33154**	RunNo: **33154**
Prep Date:	Analysis Date: **3/29/2016**	SeqNo: **1018091** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33223**	RunNo: **33223**
Prep Date:	Analysis Date: **3/31/2016**	SeqNo: **1020326** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33223**	RunNo: **33223**
Prep Date:	Analysis Date: **3/31/2016**	SeqNo: **1020327** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	108	50	150			
Selenium	0.0011	0.0010	0.001000	0	109	50	150			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33223**	RunNo: **33223**
Prep Date:	Analysis Date: **3/31/2016**	SeqNo: **1020328** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A33361**	RunNo: **33361**
Prep Date:	Analysis Date: **4/6/2016**	SeqNo: **1025223** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.024	0.0010	0.02500	0	96.3	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A33361**	RunNo: **33361**
Prep Date:	Analysis Date: **4/6/2016**	SeqNo: **1025226** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**LLLCS**	SampType:	**LCSLL**	TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**A33361**	RunNo:	**33361**					
Prep Date:		Analysis Date:	**4/6/2016**	SeqNo:	**1025226**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.0010	0.0010	0.001000	0	102	50	150			

Sample ID	**MB**	SampType:	**MBLK**	TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**A33361**	RunNo:	**33361**					
Prep Date:		Analysis Date:	**4/6/2016**	SeqNo:	**1025228**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-24248**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**24248**	RunNo:	**32847**					
Prep Date:	**3/15/2016**	Analysis Date:	**3/16/2016**	SeqNo:	**1006784**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	).0000054	0.00050								J

Sample ID	**MSLCS-24248**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**24248**	RunNo:	**32847**					
Prep Date:	**3/15/2016**	Analysis Date:	**3/16/2016**	SeqNo:	**1006788**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	96.3	85	115			
Uranium	0.012	0.00050	0.01250	0	99.9	85	115			

Sample ID	**MSLLLCS-24248**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**24248**	RunNo:	**32847**					
Prep Date:	**3/15/2016**	Analysis Date:	**3/16/2016**	SeqNo:	**1006793**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	112	50	150			
Lead	0.00049	0.00050	0.0005000	0	97.2	50	150			J
Selenium	0.00090	0.0010	0.001000	0	89.5	50	150			J
Uranium	0.00051	0.00050	0.0005000	0	102	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**MB-24156**	SampType:	**mblk**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**24156**	RunNo:	**32702**					
Prep Date:	**3/9/2016**	Analysis Date:	**3/10/2016**	SeqNo:	**1000942**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000079	0.00020								J

Sample ID	**LCS-24156**	SampType:	**lcs**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**24156**	RunNo:	**32702**					
Prep Date:	**3/9/2016**	Analysis Date:	**3/10/2016**	SeqNo:	**1000945**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0054	0.00020	0.005000	0	109	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32638**	RunNo: **32638**
Prep Date:	Analysis Date: **3/7/2016**	SeqNo: **998657** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32638**	RunNo: **32638**
Prep Date:	Analysis Date: **3/7/2016**	SeqNo: **998658** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	106	90	110			
Bromide	2.6	0.10	2.500	0	104	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	101	90	110			
Sulfate	10	0.50	10.00	0	103	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32663**	RunNo: **32663**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999366** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32663**	RunNo: **32663**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999367** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A32919**	RunNo: **32919**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1009533** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	0.10	0.50								J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A32919**	RunNo: **32919**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1009534** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.5	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **1603278-001BMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **MKTF-39**	Batch ID: **24127**	RunNo: **32647**
Prep Date: **3/8/2016**	Analysis Date: **3/8/2016**	SeqNo: **998923** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	17	1.0	5.000	13.36	79.9	59.4	160			
Surr: DNOP	0.47		0.5000		93.8	70	141			

Sample ID **1603278-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **MKTF-39**	Batch ID: **24127**	RunNo: **32647**
Prep Date: **3/8/2016**	Analysis Date: **3/8/2016**	SeqNo: **998924** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	16	1.0	5.000	13.36	54.7	59.4	160	7.52	20	S
Surr: DNOP	0.47		0.5000		93.4	70	141	0	0	

Sample ID **LCS-24127**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **24127**	RunNo: **32647**
Prep Date: **3/8/2016**	Analysis Date: **3/8/2016**	SeqNo: **998925** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	101	71.3	139			
Surr: DNOP	0.48		0.5000		95.6	70	141			

Sample ID **MB-24127**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **24127**	RunNo: **32647**
Prep Date: **3/8/2016**	Analysis Date: **3/8/2016**	SeqNo: **998926** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.91		1.000		91.0	70	141			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **A32624**	RunNo: **32624**
Prep Date:	Analysis Date: **3/7/2016**	SeqNo: **998181** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		94.6	49.5	130			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **A32624**	RunNo: **32624**
Prep Date:	Analysis Date: **3/7/2016**	SeqNo: **998182** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	99.6	80	120			
Surr: BFB	21		20.00		106	49.5	130			

Sample ID **1603278-004AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **OW-14**	Batch ID: **A32624**	RunNo: **32624**
Prep Date:	Analysis Date: **3/7/2016**	SeqNo: **998186** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	34	1.0	10.00	26.74	77.5	70	130			
Surr: BFB	450		400.0		113	49.5	130			

Sample ID **1603278-004AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **OW-14**	Batch ID: **A32624**	RunNo: **32624**
Prep Date:	Analysis Date: **3/7/2016**	SeqNo: **998187** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	36	1.0	10.00	26.74	90.8	70	130	3.78	20	
Surr: BFB	460		400.0		114	49.5	130	0	0	

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **A32657**	RunNo: **32657**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999136** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		90.9	49.5	130			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **A32657**	RunNo: **32657**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999137** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	**2.5UG GRO LCS**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSW**	Batch ID:	**A32657**		RunNo:	**32657**					
Prep Date:		Analysis Date:	**3/8/2016**		SeqNo:	**999137**	Units:	**mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		0.56	0.050	0.5000	0	111	80	120			
Surr: BFB		23		20.00		115	49.5	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32660**	RunNo: **32660**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999254** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32660**	RunNo: **32660**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999254** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	0.19	3.0								J
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		109	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.2	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32660**	RunNo: **32660**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999255** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	70	130			
Toluene	22	1.0	20.00	0	111	70	130			
Chlorobenzene	22	1.0	20.00	0	109	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32660**	RunNo: **32660**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999255** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21	1.0	20.00	0	105	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	98.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.6	70	130			
Surr: Toluene-d8	10		10.00		99.7	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32729**	RunNo: **32729**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1001574** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			
Surr: Toluene-d8	9.7		10.00		97.2	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32729**	RunNo: **32729**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1001575** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromomethane	ND	3.0								
Chloromethane	ND	3.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.0	70	130			
Surr: Dibromofluoromethane	12		10.00		120	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **mb-24121**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003941** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **mb-24121**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003941** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	250		200.0		123	4.63	113			S
Surr: Phenol-d5	260		200.0		131	4.13	124			S
Surr: 2,4,6-Tribromophenol	230		200.0		116	5.14	132			
Surr: Nitrobenzene-d5	130		100.0		128	9.13	140			
Surr: 2-Fluorobiphenyl	120		100.0		118	10.8	132			
Surr: 4-Terphenyl-d14	130		100.0		131	12.9	107			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603278**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID **lcs-24121**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003943** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	100	10	100.0	0	104	40.2	107			
4-Chloro-3-methylphenol	250	10	200.0	0	125	48.2	107			S
2-Chlorophenol	220	10	200.0	0	110	42.5	106			S
1,4-Dichlorobenzene	110	10	100.0	0	109	31.6	111			
2,4-Dinitrotoluene	78	10	100.0	0	78.1	33.6	86.5			
N-Nitrosodi-n-propylamine	110	10	100.0	0	108	44	106			S
4-Nitrophenol	180	10	200.0	0	88.4	25.5	109			
Pentachlorophenol	170	20	200.0	0	84.6	38.8	97.8			
Phenol	210	10	200.0	0	107	22.7	116			
Pyrene	100	10	100.0	0	103	29.3	138			
1,2,4-Trichlorobenzene	110	10	100.0	0	115	35.3	123			
Surr: 2-Fluorophenol	180		200.0		88.4	4.63	113			
Surr: Phenol-d5	200		200.0		101	4.13	124			
Surr: 2,4,6-Tribromophenol	230		200.0		113	5.14	132			
Surr: Nitrobenzene-d5	96		100.0		96.0	9.13	140			
Surr: 2-Fluorobiphenyl	90		100.0		90.5	10.8	132			
Surr: 4-Terphenyl-d14	99		100.0		99.4	12.9	107			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1603278** RcptNo: 1

Received by/date: JA 03/05/16

Logged By: **Ashley Gallegos** 3/5/2016 9:05:00 AM

Completed By: **Ashley Gallegos** 3/7/2016 8:37:42 AM

Reviewed By: 03/07/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved? AJ 3/7	~~Yes~~ ☑	No ☑ AJ	
9. Was preservative added to bottles?	Yes ☑	~~No~~ ☑ 3/7	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 9 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? yes
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: AJ

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks: For 300 analysis: added 0.4 mL of H_2SO_4 to -0010 2 of 3 for acceptable pH. 3/7 AJ

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard / [X] Level 4 (Full Validation)
Accreditation: NELAP / ☐ Other
EDD (Type) EXCEL

Turn-Around Time: [X] Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
3/1/16	1630	WATER	MKTF-39	40 mL VOA-6	HCL	1603278-001
				1 LITER AMBER-1	NEAT	
				250 mL AMBER-1	NEAT	
				125 mL PLASTIC-1	HNO_3	
				125 mL PLASTIC-1	H_2SO_4	
				500 mL PLASTIC-1	HNO_3	
				500 mL PLASTIC-1	NEAT	
3/3/16	1520	WATER	BW TO EP-2 INLET	125 mL PLASTIC-1	HNO_3	-002
				125 mL PLASTIC-1	H_2SO_4	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations / Anions	WQCC Metals (Total & Dissolved)		Air Bubbles (Y or N)
		✓							✓	✓				
		✓									✓	✓		
											✓	✓		
												✓		
												✓		

Date: 3/4/16 Time: 1350 Relinquished by:
Date: 3/4/16 Time: 905 Relinquished by:

Received by: Date: 3/4/16 Time: 1:30
Received by: Date: 03/05/16 Time: 0905

Remarks: Per TP will resample BW - EP-2 Inlet At 03/07/16

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW INC.
GALLUP REFINERY
Mailing Address: #2 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard ☒ Level 4 (Full Validation)
Accreditation: ☒ NELAP ☐ Other
EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1603278
3/4/16	1100	WATER	OW-13	40 mL VOA-6	HCL	-003
				250mL AMBER-1	NEAT	
				125 mL PLASTIC-1	HNO_3	
				500mL PLASTIC-1	HNO_3	
				500mL PLASTIC-1	NEAT	
3/4/16	1220	WATER	OW-14	40 mL VOA-6	HCL	-004
				250 mL AMBER-1	NEAT	
				125 mL PLASTIC-1	HNO_3	
				500 mL PLASTIC-1	HNO_3	
				1 LITER PLASTIC-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	WQCC METALS (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
		✓							✓					
		✓									✓			
											✓			
											✓			
		✓							✓					
		✓									✓			
											✓			
											✓			

Date: 3/4/16 Time: 1350 Relinquished by:
Received by: Date 3/4/16 Time 435
Date: 3/5/16 Time: 905 Relinquished by:
Received by: Date 03/05/16 Time 0905

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard / [X] Level 4 (Full Validation)
Accreditation: NELAP ☐ Other
EDD (Type) EXCEL

Turn-Around Time: [X] Standard ☐ Rush
Project Name: QUARTERLY GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
3/4/16	1315	WATER	OW-29	40 ML VOA-6	HCL	1603278-005
				250 ML AMBER-1	NEAT	
				125 PLASTIC -1	HNO_3	
				500 ML PLASTIC-1	HNO_3	
				1 LITER PLASTIC-1	NEAT	
—	—	WATER	TRIP BLANK	40 ML VOA-4	HCL	-006

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	WQCC METALS	(TOTAL & DISSOLVED)			Air Bubbles (Y or N)
		✓							✓						
		✓													
											✓				
											✓				
											✓				
									✓						

Date	Time	Relinquished by:	Received by:	Date	Time
3/4/16	1350			3/4/16	430
3/5/16	905			03/05/16	0905

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 05, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 2nd Quarter-OW Wells OrderNo.: 1606426

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 6/8/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 2nd Quarter-OW Wells
Collection Date: 6/6/2016 7:30:00 AM
Lab ID: 1606426-001 **Matrix:** AQUEOUS **Received Date:** 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Toluene	ND	0.12	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Acetone	ND	4.9	10		µg/L	1	6/15/2016 12:20:00 AM	A34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Bromoform	ND	0.10	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
2-Butanone	ND	0.74	10		µg/L	1	6/15/2016 12:20:00 AM	A34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/15/2016 12:20:00 AM	A34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Chloroform	ND	0.089	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/15/2016 12:20:00 AM	A34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 2nd Quarter-OW Wells
Collection Date: 6/6/2016 7:30:00 AM
Lab ID: 1606426-001 **Matrix:** AQUEOUS **Received Date:** 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
2-Hexanone	ND	0.84	10		µg/L	1	6/15/2016 12:20:00 AM	A34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/15/2016 12:20:00 AM	A34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Styrene	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/15/2016 12:20:00 AM	A34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/15/2016 12:20:00 AM	A34909
Surr: 1,2-Dichloroethane-d4	92.5	0	70-130		%Rec	1	6/15/2016 12:20:00 AM	A34909
Surr: 4-Bromofluorobenzene	104	0	70-130		%Rec	1	6/15/2016 12:20:00 AM	A34909
Surr: Dibromofluoromethane	96.2	0	70-130		%Rec	1	6/15/2016 12:20:00 AM	A34909
Surr: Toluene-d8	99.0	0	70-130		%Rec	1	6/15/2016 12:20:00 AM	A34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-14
Project: 2016 2nd Quarter-OW Wells
Collection Date: 6/6/2016 8:45:00 AM
Lab ID: 1606426-002
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	4.5	0.69	1.0		mg/L	1	6/9/2016 2:08:21 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 2:08:21 PM	25749
Surr: DNOP	99.8	0	70-141		%Rec	1	6/9/2016 2:08:21 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	27	0.51	1.0		mg/L	20	6/13/2016 4:58:22 PM	A34874
Surr: BFB	114	0	66.4-120		%Rec	20	6/13/2016 4:58:22 PM	A34874
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	2.2	0.0066	0.010	*	mg/L	5	6/10/2016 4:13:55 PM	A34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 4:12:17 PM	A34847
Calcium	93	0.26	1.0		mg/L	1	6/10/2016 4:12:17 PM	A34847
Chromium	ND	0.0018	0.0060		mg/L	1	6/10/2016 4:12:17 PM	A34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 4:12:17 PM	A34847
Iron	4.9	0.091	0.20	*	mg/L	10	6/13/2016 4:03:46 PM	A34876
Magnesium	26	0.013	1.0		mg/L	1	6/10/2016 4:12:17 PM	A34847
Manganese	2.3	0.0016	0.010	*	mg/L	5	6/10/2016 4:13:55 PM	A34847
Potassium	0.30	0.18	1.0	J	mg/L	1	6/10/2016 4:12:17 PM	A34847
Silver	ND	0.0028	0.0050		mg/L	1	6/10/2016 4:12:17 PM	A34847
Sodium	390	0.48	5.0		mg/L	5	6/10/2016 4:13:55 PM	A34847
Zinc	ND	0.0028	0.010		mg/L	1	6/10/2016 4:12:17 PM	A34847
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	2.2	0.011	0.020	*	mg/L	10	6/20/2016 3:46:38 PM	25859
Cadmium	ND	0.00062	0.0020		mg/L	1	6/17/2016 6:10:01 PM	25859
Chromium	ND	0.0022	0.0060		mg/L	1	6/17/2016 6:10:01 PM	25859
Copper	ND	0.0051	0.0060		mg/L	1	6/17/2016 6:10:01 PM	25859
Iron	5.1	0.072	0.20	*	mg/L	10	6/20/2016 3:46:38 PM	25859
Manganese	2.4	0.015	0.020	*	mg/L	10	6/20/2016 3:46:38 PM	25859
Silver	ND	0.0021	0.0050		mg/L	1	6/17/2016 6:10:01 PM	25859
Zinc	ND	0.0039	0.010		mg/L	1	6/17/2016 6:10:01 PM	25859
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.012	0.0014	0.010	*	mg/L	10	6/16/2016 2:00:18 PM	A34971
Lead	ND	0.00017	0.00050		mg/L	1	6/14/2016 6:44:54 PM	C34915
Selenium	0.022	0.011	0.050	J	mg/L	50	6/16/2016 2:03:22 PM	A34971
Uranium	0.0068	0.000051	0.00050		mg/L	1	6/14/2016 6:44:54 PM	C34915
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.016	0.0058	0.020	J*	mg/L	20	6/17/2016 6:11:45 PM	25859
Lead	0.00020	0.000047	0.00050	J	mg/L	1	6/16/2016 8:38:51 PM	25859
Selenium	0.017	0.0025	0.020	J	mg/L	20	6/17/2016 6:11:45 PM	25859

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-14
Project: 2016 2nd Quarter-OW Wells
Collection Date: 6/6/2016 8:45:00 AM
Lab ID: 1606426-002
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.0074	0.0000049	0.00050		mg/L	1	6/16/2016 8:38:51 PM	25859
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000068	0.000053	0.00020	J	mg/L	1	6/13/2016 3:50:49 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	7800	9.6	100		µg/L	100	6/15/2016 12:43:00 AM	A34909
Toluene	2.6	1.2	10	J	µg/L	10	6/15/2016 1:06:00 AM	A34909
Ethylbenzene	230	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Methyl tert-butyl ether (MTBE)	620	2.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,2,4-Trimethylbenzene	8.0	1.1	10	J	µg/L	10	6/15/2016 1:06:00 AM	A34909
1,3,5-Trimethylbenzene	1.7	1.2	10	J	µg/L	10	6/15/2016 1:06:00 AM	A34909
1,2-Dichloroethane (EDC)	ND	1.2	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Naphthalene	19	0.93	20	J	µg/L	10	6/15/2016 1:06:00 AM	A34909
1-Methylnaphthalene	33	2.0	40	J	µg/L	10	6/15/2016 1:06:00 AM	A34909
2-Methylnaphthalene	3.3	1.6	40	J	µg/L	10	6/15/2016 1:06:00 AM	A34909
Acetone	ND	49	100		µg/L	10	6/15/2016 1:06:00 AM	A34909
Bromobenzene	ND	0.98	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Bromodichloromethane	ND	1.4	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Bromoform	ND	1.0	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Bromomethane	ND	7.8	30		µg/L	10	6/15/2016 1:06:00 AM	A34909
2-Butanone	ND	7.4	100		µg/L	10	6/15/2016 1:06:00 AM	A34909
Carbon disulfide	ND	6.0	100		µg/L	10	6/15/2016 1:06:00 AM	A34909
Carbon Tetrachloride	ND	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Chlorobenzene	ND	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Chloroethane	ND	1.9	20		µg/L	10	6/15/2016 1:06:00 AM	A34909
Chloroform	ND	0.89	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Chloromethane	ND	2.1	30		µg/L	10	6/15/2016 1:06:00 AM	A34909
2-Chlorotoluene	ND	4.0	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
4-Chlorotoluene	ND	1.3	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
cis-1,2-DCE	ND	1.2	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	6/15/2016 1:06:00 AM	A34909
Dibromochloromethane	ND	0.87	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Dibromomethane	ND	1.2	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	6/15/2016 1:06:00 AM	A34909

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-14
Project: 2016 2nd Quarter-OW Wells
Collection Date: 6/6/2016 8:45:00 AM
Lab ID: 1606426-002
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,1-Dichloroethane	ND	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,1-Dichloroethene	ND	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,2-Dichloropropane	ND	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,3-Dichloropropane	ND	1.6	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
2,2-Dichloropropane	ND	1.7	20		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,1-Dichloropropene	ND	1.3	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Hexachlorobutadiene	ND	2.0	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
2-Hexanone	ND	8.4	100		µg/L	10	6/15/2016 1:06:00 AM	A34909
Isopropylbenzene	9.6	1.0	10	J	µg/L	10	6/15/2016 1:06:00 AM	A34909
4-Isopropyltoluene	ND	1.4	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	6/15/2016 1:06:00 AM	A34909
Methylene Chloride	ND	1.9	30		µg/L	10	6/15/2016 1:06:00 AM	A34909
n-Butylbenzene	ND	1.6	30		µg/L	10	6/15/2016 1:06:00 AM	A34909
n-Propylbenzene	11	1.3	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
sec-Butylbenzene	3.1	1.2	10	J	µg/L	10	6/15/2016 1:06:00 AM	A34909
Styrene	ND	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
tert-Butylbenzene	ND	1.2	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	6/15/2016 1:06:00 AM	A34909
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
trans-1,2-DCE	ND	4.0	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,1,1-Trichloroethane	ND	0.91	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Trichlorofluoromethane	ND	2.0	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	6/15/2016 1:06:00 AM	A34909
Vinyl chloride	ND	2.0	10		µg/L	10	6/15/2016 1:06:00 AM	A34909
Xylenes, Total	12	3.7	15	J	µg/L	10	6/15/2016 1:06:00 AM	A34909
Surr: 1,2-Dichloroethane-d4	95.1	0	70-130		%Rec	10	6/15/2016 1:06:00 AM	A34909
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	10	6/15/2016 1:06:00 AM	A34909
Surr: Dibromofluoromethane	94.6	0	70-130		%Rec	10	6/15/2016 1:06:00 AM	A34909
Surr: Toluene-d8	97.3	0	70-130		%Rec	10	6/15/2016 1:06:00 AM	A34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-29
Project: 2016 2nd Quarter-OW Wells
Collection Date: 6/6/2016 10:30:00 AM
Lab ID: 1606426-003
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/9/2016 2:36:25 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 2:36:25 PM	25749
Surr: DNOP	102	0	70-141		%Rec	1	6/9/2016 2:36:25 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	4.0	0.25	0.50		mg/L	10	6/13/2016 5:21:44 PM	A34874
Surr: BFB	109	0	66.4-120		%Rec	10	6/13/2016 5:21:44 PM	A34874
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.070	0.0013	0.0020		mg/L	1	6/10/2016 4:15:59 PM	A34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 4:15:59 PM	A34847
Calcium	60	0.26	1.0		mg/L	1	6/10/2016 4:15:59 PM	A34847
Chromium	ND	0.0018	0.0060		mg/L	1	6/10/2016 4:15:59 PM	A34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 4:15:59 PM	A34847
Iron	0.31	0.0091	0.020	*	mg/L	1	6/10/2016 4:15:59 PM	A34847
Magnesium	14	0.013	1.0		mg/L	1	6/10/2016 4:15:59 PM	A34847
Manganese	0.33	0.00032	0.0020	*	mg/L	1	6/10/2016 4:15:59 PM	A34847
Potassium	0.55	0.18	1.0	J	mg/L	1	6/10/2016 4:15:59 PM	A34847
Silver	ND	0.0028	0.0050		mg/L	1	6/10/2016 4:15:59 PM	A34847
Sodium	390	0.48	5.0		mg/L	5	6/10/2016 4:17:55 PM	A34847
Zinc	ND	0.0028	0.010		mg/L	1	6/10/2016 4:15:59 PM	A34847
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.072	0.0011	0.0020		mg/L	1	6/20/2016 3:48:32 PM	25859
Cadmium	ND	0.00062	0.0020		mg/L	1	6/17/2016 6:13:38 PM	25859
Chromium	ND	0.0022	0.0060		mg/L	1	6/17/2016 6:13:38 PM	25859
Copper	ND	0.0051	0.0060		mg/L	1	6/17/2016 6:13:38 PM	25859
Iron	0.36	0.0072	0.020	*	mg/L	1	6/20/2016 3:48:32 PM	25859
Manganese	0.33	0.0015	0.0020	*	mg/L	1	6/20/2016 3:48:32 PM	25859
Silver	ND	0.0021	0.0050		mg/L	1	6/17/2016 6:13:38 PM	25859
Zinc	ND	0.0039	0.010		mg/L	1	6/17/2016 6:13:38 PM	25859
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0032	0.00069	0.0050	J	mg/L	5	6/16/2016 2:06:25 PM	A34971
Lead	ND	0.00017	0.00050		mg/L	1	6/14/2016 7:00:22 PM	C34915
Selenium	0.0080	0.0021	0.010	J	mg/L	10	6/16/2016 2:09:29 PM	A34971
Uranium	0.054	0.00026	0.0025	*	mg/L	5	6/16/2016 2:06:25 PM	A34971
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0039	0.0015	0.0050	J	mg/L	5	6/17/2016 6:16:54 PM	25859
Lead	ND	0.000047	0.00050		mg/L	1	6/16/2016 8:41:51 PM	25859
Selenium	0.0068	0.00062	0.0050		mg/L	5	6/17/2016 6:16:54 PM	25859

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-29
Project: 2016 2nd Quarter-OW Wells
Collection Date: 6/6/2016 10:30:00 AM
Lab ID: 1606426-003
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.053	0.000025	0.0025	*	mg/L	5	6/17/2016 6:16:54 PM	25859
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000061	0.000053	0.00020	J	mg/L	1	6/13/2016 3:52:56 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.48	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Toluene	ND	0.59	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Ethylbenzene	ND	0.56	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Methyl tert-butyl ether (MTBE)	3100	11	50		µg/L	50	6/15/2016 2:39:00 AM	A34909
1,2,4-Trimethylbenzene	ND	0.55	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Naphthalene	ND	0.46	10		µg/L	5	6/15/2016 3:02:00 AM	A34909
1-Methylnaphthalene	ND	1.0	20		µg/L	5	6/15/2016 3:02:00 AM	A34909
2-Methylnaphthalene	ND	0.79	20		µg/L	5	6/15/2016 3:02:00 AM	A34909
Acetone	ND	25	50		µg/L	5	6/15/2016 3:02:00 AM	A34909
Bromobenzene	ND	0.49	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Bromodichloromethane	ND	0.70	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Bromoform	ND	0.51	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Bromomethane	ND	3.9	15		µg/L	5	6/15/2016 3:02:00 AM	A34909
2-Butanone	ND	3.7	50		µg/L	5	6/15/2016 3:02:00 AM	A34909
Carbon disulfide	ND	3.0	50		µg/L	5	6/15/2016 3:02:00 AM	A34909
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Chlorobenzene	ND	0.57	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Chloroethane	ND	0.96	10		µg/L	5	6/15/2016 3:02:00 AM	A34909
Chloroform	ND	0.44	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Chloromethane	ND	1.1	15		µg/L	5	6/15/2016 3:02:00 AM	A34909
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	6/15/2016 3:02:00 AM	A34909
Dibromochloromethane	ND	0.43	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Dibromomethane	ND	0.60	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-29
Project: 2016 2nd Quarter-OW Wells
Collection Date: 6/6/2016 10:30:00 AM
Lab ID: 1606426-003
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
2,2-Dichloropropane	ND	0.83	10		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
2-Hexanone	ND	4.2	50		µg/L	5	6/15/2016 3:02:00 AM	A34909
Isopropylbenzene	ND	0.52	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	6/15/2016 3:02:00 AM	A34909
Methylene Chloride	ND	0.94	15		µg/L	5	6/15/2016 3:02:00 AM	A34909
n-Butylbenzene	ND	0.80	15		µg/L	5	6/15/2016 3:02:00 AM	A34909
n-Propylbenzene	ND	0.66	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
sec-Butylbenzene	ND	0.62	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Styrene	ND	0.55	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	6/15/2016 3:02:00 AM	A34909
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	6/15/2016 3:02:00 AM	A34909
Vinyl chloride	ND	0.98	5.0		µg/L	5	6/15/2016 3:02:00 AM	A34909
Xylenes, Total	ND	1.8	7.5		µg/L	5	6/15/2016 3:02:00 AM	A34909
Surr: 1,2-Dichloroethane-d4	91.3	0	70-130		%Rec	5	6/15/2016 3:02:00 AM	A34909
Surr: 4-Bromofluorobenzene	99.4	0	70-130		%Rec	5	6/15/2016 3:02:00 AM	A34909
Surr: Dibromofluoromethane	94.7	0	70-130		%Rec	5	6/15/2016 3:02:00 AM	A34909
Surr: Toluene-d8	98.9	0	70-130		%Rec	5	6/15/2016 3:02:00 AM	A34909

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-30
Project: 2016 2nd Quarter-OW Wells
Collection Date: 6/6/2016 11:10:00 AM
Lab ID: 1606426-004
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/9/2016 3:04:33 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 3:04:33 PM	25749
Surr: DNOP	104	0	70-141		%Rec	1	6/9/2016 3:04:33 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	4.0	0.25	0.50		mg/L	10	6/13/2016 5:45:06 PM	A34874
Surr: BFB	109	0	66.4-120		%Rec	10	6/13/2016 5:45:06 PM	A34874
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.10	0.0013	0.0020		mg/L	1	6/10/2016 4:27:31 PM	A34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 4:27:31 PM	A34847
Calcium	74	0.26	1.0		mg/L	1	6/10/2016 4:27:31 PM	A34847
Chromium	ND	0.0018	0.0060		mg/L	1	6/10/2016 4:27:31 PM	A34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 4:27:31 PM	A34847
Iron	0.062	0.0091	0.020		mg/L	1	6/10/2016 4:27:31 PM	A34847
Magnesium	17	0.013	1.0		mg/L	1	6/10/2016 4:27:31 PM	A34847
Manganese	0.043	0.00032	0.0020		mg/L	1	6/10/2016 4:27:31 PM	A34847
Potassium	0.46	0.18	1.0	J	mg/L	1	6/10/2016 4:27:31 PM	A34847
Silver	ND	0.0028	0.0050		mg/L	1	6/10/2016 4:27:31 PM	A34847
Sodium	370	0.48	5.0		mg/L	5	6/10/2016 4:29:25 PM	A34847
Zinc	ND	0.0028	0.010		mg/L	1	6/10/2016 4:27:31 PM	A34847
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.11	0.0011	0.0020		mg/L	1	6/20/2016 3:55:54 PM	25859
Cadmium	ND	0.00062	0.0020		mg/L	1	6/17/2016 6:17:29 PM	25859
Chromium	ND	0.0022	0.0060		mg/L	1	6/17/2016 6:17:29 PM	25859
Copper	ND	0.0051	0.0060		mg/L	1	6/17/2016 6:17:29 PM	25859
Iron	0.11	0.0072	0.020		mg/L	1	6/20/2016 3:55:54 PM	25859
Manganese	0.045	0.0015	0.0020		mg/L	1	6/20/2016 3:55:54 PM	25859
Silver	ND	0.0021	0.0050		mg/L	1	6/17/2016 6:17:29 PM	25859
Zinc	ND	0.0039	0.010		mg/L	1	6/17/2016 6:17:29 PM	25859
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0036	0.00069	0.0050	J	mg/L	5	6/16/2016 2:12:32 PM	A34971
Lead	0.00020	0.00017	0.00050	J	mg/L	1	6/14/2016 7:05:30 PM	C34915
Selenium	0.0095	0.0042	0.020	J	mg/L	20	6/16/2016 2:15:36 PM	A34971
Uranium	0.047	0.00026	0.0025	*	mg/L	5	6/16/2016 2:12:32 PM	A34971
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0042	0.0015	0.0050	J	mg/L	5	6/17/2016 6:27:11 PM	25859
Lead	0.00030	0.000047	0.00050	J	mg/L	1	6/16/2016 8:44:52 PM	25859
Selenium	0.0090	0.00062	0.0050		mg/L	5	6/17/2016 6:27:11 PM	25859

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-30
Project: 2016 2nd Quarter-OW Wells
Collection Date: 6/6/2016 11:10:00 AM
Lab ID: 1606426-004
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.046	0.000025	0.0025	*	mg/L	5	6/17/2016 6:27:11 PM	25859
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000062	0.000053	0.00020	J	mg/L	1	6/13/2016 3:55:03 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	1.2	0.48	5.0	J	µg/L	5	6/15/2016 3:48:00 AM	A34909
Toluene	ND	0.59	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Ethylbenzene	ND	0.56	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Methyl tert-butyl ether (MTBE)	3100	11	50		µg/L	50	6/15/2016 3:25:00 AM	A34909
1,2,4-Trimethylbenzene	ND	0.55	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Naphthalene	ND	0.46	10		µg/L	5	6/15/2016 3:48:00 AM	A34909
1-Methylnaphthalene	ND	1.0	20		µg/L	5	6/15/2016 3:48:00 AM	A34909
2-Methylnaphthalene	ND	0.79	20		µg/L	5	6/15/2016 3:48:00 AM	A34909
Acetone	ND	25	50		µg/L	5	6/15/2016 3:48:00 AM	A34909
Bromobenzene	ND	0.49	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Bromodichloromethane	ND	0.70	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Bromoform	ND	0.51	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Bromomethane	ND	3.9	15		µg/L	5	6/15/2016 3:48:00 AM	A34909
2-Butanone	ND	3.7	50		µg/L	5	6/15/2016 3:48:00 AM	A34909
Carbon disulfide	ND	3.0	50		µg/L	5	6/15/2016 3:48:00 AM	A34909
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Chlorobenzene	ND	0.57	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Chloroethane	ND	0.96	10		µg/L	5	6/15/2016 3:48:00 AM	A34909
Chloroform	ND	0.44	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Chloromethane	ND	1.1	15		µg/L	5	6/15/2016 3:48:00 AM	A34909
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	6/15/2016 3:48:00 AM	A34909
Dibromochloromethane	ND	0.43	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Dibromomethane	ND	0.60	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-30
Project: 2016 2nd Quarter-OW Wells
Collection Date: 6/6/2016 11:10:00 AM
Lab ID: 1606426-004
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
2,2-Dichloropropane	ND	0.83	10		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
2-Hexanone	ND	4.2	50		µg/L	5	6/15/2016 3:48:00 AM	A34909
Isopropylbenzene	ND	0.52	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	6/15/2016 3:48:00 AM	A34909
Methylene Chloride	ND	0.94	15		µg/L	5	6/15/2016 3:48:00 AM	A34909
n-Butylbenzene	ND	0.80	15		µg/L	5	6/15/2016 3:48:00 AM	A34909
n-Propylbenzene	ND	0.66	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
sec-Butylbenzene	0.64	0.62	5.0	J	µg/L	5	6/15/2016 3:48:00 AM	A34909
Styrene	ND	0.55	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	6/15/2016 3:48:00 AM	A34909
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	6/15/2016 3:48:00 AM	A34909
Vinyl chloride	ND	0.98	5.0		µg/L	5	6/15/2016 3:48:00 AM	A34909
Xylenes, Total	ND	1.8	7.5		µg/L	5	6/15/2016 3:48:00 AM	A34909
Surr: 1,2-Dichloroethane-d4	91.0	0	70-130		%Rec	5	6/15/2016 3:48:00 AM	A34909
Surr: 4-Bromofluorobenzene	97.0	0	70-130		%Rec	5	6/15/2016 3:48:00 AM	A34909
Surr: Dibromofluoromethane	93.6	0	70-130		%Rec	5	6/15/2016 3:48:00 AM	A34909
Surr: Toluene-d8	99.1	0	70-130		%Rec	5	6/15/2016 3:48:00 AM	A34909

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-13
Project: 2016 2nd Quarter-OW Wells
Collection Date: 6/6/2016 1:45:00 PM
Lab ID: 1606426-005
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/9/2016 4:01:00 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 4:01:00 PM	25749
Surr: DNOP	103	0	70-141		%Rec	1	6/9/2016 4:01:00 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.052	0.025	0.050		mg/L	1	6/13/2016 6:08:36 PM	A34874
Surr: BFB	108	0	66.4-120		%Rec	1	6/13/2016 6:08:36 PM	A34874
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.020	0.0013	0.0020		mg/L	1	6/10/2016 4:31:20 PM	A34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 4:31:20 PM	A34847
Calcium	9.4	0.26	1.0		mg/L	1	6/10/2016 4:31:20 PM	A34847
Chromium	ND	0.0018	0.0060		mg/L	1	6/10/2016 4:31:20 PM	A34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 4:31:20 PM	A34847
Iron	ND	0.0091	0.020		mg/L	1	6/10/2016 4:31:20 PM	A34847
Magnesium	1.4	0.013	1.0		mg/L	1	6/10/2016 4:31:20 PM	A34847
Manganese	0.020	0.00032	0.0020		mg/L	1	6/10/2016 4:31:20 PM	A34847
Potassium	1.3	0.18	1.0		mg/L	1	6/10/2016 4:31:20 PM	A34847
Silver	ND	0.0028	0.0050		mg/L	1	6/10/2016 4:31:20 PM	A34847
Sodium	310	0.48	5.0		mg/L	5	6/10/2016 4:33:23 PM	A34847
Zinc	0.014	0.0028	0.010		mg/L	1	6/10/2016 4:31:20 PM	A34847
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.021	0.0011	0.0020		mg/L	1	6/20/2016 3:57:48 PM	25859
Cadmium	ND	0.00062	0.0020		mg/L	1	6/17/2016 6:31:14 PM	25859
Chromium	ND	0.0022	0.0060		mg/L	1	6/17/2016 6:31:14 PM	25859
Copper	ND	0.0051	0.0060		mg/L	1	6/17/2016 6:31:14 PM	25859
Iron	ND	0.0072	0.020		mg/L	1	6/17/2016 6:31:14 PM	25859
Manganese	0.020	0.0015	0.0020		mg/L	1	6/20/2016 3:57:48 PM	25859
Silver	ND	0.0021	0.0050		mg/L	1	6/17/2016 6:31:14 PM	25859
Zinc	ND	0.0039	0.010		mg/L	1	6/17/2016 6:31:14 PM	25859
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0019	0.00069	0.0050	J	mg/L	5	6/16/2016 2:24:49 PM	A34971
Lead	ND	0.00017	0.00050		mg/L	1	6/14/2016 7:10:39 PM	C34915
Selenium	0.0035	0.0011	0.0050	J	mg/L	5	6/16/2016 2:24:49 PM	A34971
Uranium	0.018	0.000051	0.00050		mg/L	1	6/14/2016 7:10:39 PM	C34915
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0019	0.0015	0.0050	J	mg/L	5	6/17/2016 6:47:49 PM	25859
Lead	ND	0.000047	0.00050		mg/L	1	6/16/2016 8:47:52 PM	25859
Selenium	0.0025	0.00062	0.0050	J	mg/L	5	6/17/2016 6:47:49 PM	25859

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Lab ID: 1606426-005
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.019	0.0000049	0.00050		mg/L	1	6/16/2016 8:47:52 PM	25859
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000060	0.000053	0.00020	J	mg/L	1	6/13/2016 3:57:02 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Toluene	ND	0.12	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Methyl tert-butyl ether (MTBE)	36	0.21	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,2-Dichloroethane (EDC)	0.75	0.12	1.0	J	µg/L	1	6/15/2016 4:12:00 AM	A34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Acetone	ND	4.9	10		µg/L	1	6/15/2016 4:12:00 AM	A34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Bromoform	ND	0.10	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
2-Butanone	ND	0.74	10		µg/L	1	6/15/2016 4:12:00 AM	A34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/15/2016 4:12:00 AM	A34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Chloroform	ND	0.089	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-13
Project: 2016 2nd Quarter-OW Wells
Collection Date: 6/6/2016 1:45:00 PM
Lab ID: 1606426-005
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
2-Hexanone	ND	0.84	10		µg/L	1	6/15/2016 4:12:00 AM	A34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/15/2016 4:12:00 AM	A34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Styrene	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/15/2016 4:12:00 AM	A34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/15/2016 4:12:00 AM	A34909
Surr: 1,2-Dichloroethane-d4	91.2	0	70-130		%Rec	1	6/15/2016 4:12:00 AM	A34909
Surr: 4-Bromofluorobenzene	97.8	0	70-130		%Rec	1	6/15/2016 4:12:00 AM	A34909
Surr: Dibromofluoromethane	94.6	0	70-130		%Rec	1	6/15/2016 4:12:00 AM	A34909
Surr: Toluene-d8	96.8	0	70-130		%Rec	1	6/15/2016 4:12:00 AM	A34909

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-01
Project: 2016 2nd Quarter-OW Wells
Collection Date: 6/6/2016 1:35:00 PM
Lab ID: 1606426-006
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/9/2016 4:29:21 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 4:29:21 PM	25749
Surr: DNOP	104	0	70-141		%Rec	1	6/9/2016 4:29:21 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/13/2016 6:32:00 PM	A34874
Surr: BFB	111	0	66.4-120		%Rec	1	6/13/2016 6:32:00 PM	A34874
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.24	0.023	0.10		mg/L	1	6/9/2016 10:09:24 PM	R34830
Chloride	74	0.55	10		mg/L	20	6/9/2016 10:21:49 PM	R34830
Bromide	0.25	0.032	0.10		mg/L	1	6/20/2016 11:18:57 PM	A35046
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/9/2016 10:09:24 PM	R34830
Sulfate	170	1.3	10		mg/L	20	6/9/2016 10:21:49 PM	R34830
Nitrate+Nitrite as N	0.49	0.42	1.0	J	mg/L	5	6/10/2016 2:17:39 AM	R34830
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.072	0.0013	0.0020		mg/L	1	6/10/2016 4:35:17 PM	A34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 4:35:17 PM	A34847
Calcium	6.7	0.26	1.0		mg/L	1	6/10/2016 4:35:17 PM	A34847
Chromium	0.0019	0.0018	0.0060	J	mg/L	1	6/10/2016 4:35:17 PM	A34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 4:35:17 PM	A34847
Iron	0.82	0.0091	0.020	*	mg/L	1	6/10/2016 4:35:17 PM	A34847
Magnesium	0.60	0.013	1.0	J	mg/L	1	6/10/2016 4:35:17 PM	A34847
Manganese	0.092	0.00032	0.0020	*	mg/L	1	6/10/2016 4:35:17 PM	A34847
Potassium	0.88	0.18	1.0	J	mg/L	1	6/10/2016 4:35:17 PM	A34847
Silver	ND	0.0028	0.0050		mg/L	1	6/10/2016 4:35:17 PM	A34847
Sodium	330	0.48	5.0		mg/L	5	6/10/2016 4:37:16 PM	A34847
Zinc	0.022	0.0028	0.010		mg/L	1	6/10/2016 4:35:17 PM	A34847
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.13	0.0011	0.0020		mg/L	1	6/20/2016 3:59:49 PM	25859
Cadmium	ND	0.00062	0.0020		mg/L	1	6/17/2016 6:35:13 PM	25859
Chromium	0.014	0.0022	0.0060		mg/L	1	6/20/2016 3:59:49 PM	25859
Copper	ND	0.0051	0.0060		mg/L	1	6/17/2016 6:35:13 PM	25859
Iron	4.8	0.072	0.20	*	mg/L	10	6/20/2016 4:01:38 PM	25859
Manganese	0.22	0.0015	0.0020	*	mg/L	1	6/20/2016 3:59:49 PM	25859
Silver	ND	0.0021	0.0050		mg/L	1	6/17/2016 6:35:13 PM	25859
Zinc	0.042	0.0039	0.010		mg/L	1	6/20/2016 3:59:49 PM	25859
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0024	0.00069	0.0050	J	mg/L	5	6/16/2016 2:27:53 PM	A34971

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.0048	0.00017	0.00050		mg/L	1	6/14/2016 7:15:47 PM	C34915
Selenium	0.0046	0.00021	0.0010		mg/L	1	6/14/2016 7:15:47 PM	C34915
Uranium	0.041	0.00026	0.0025	*	mg/L	5	6/16/2016 2:27:53 PM	A34971
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0022	0.00029	0.0010		mg/L	1	6/16/2016 8:50:53 PM	25859
Lead	0.011	0.000047	0.00050		mg/L	1	6/16/2016 8:50:53 PM	25859
Selenium	0.0047	0.00062	0.0050	J	mg/L	5	6/17/2016 6:52:57 PM	25859
Uranium	0.041	0.000025	0.0025	*	mg/L	5	6/17/2016 6:52:57 PM	25859
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000083	0.000053	0.00020	J	mg/L	1	6/13/2016 3:59:03 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	0.13	0.096	1.0	J	µg/L	1	6/15/2016 4:35:00 AM	A34909
Toluene	ND	0.12	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Methyl tert-butyl ether (MTBE)	1.0	0.21	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Acetone	ND	4.9	10		µg/L	1	6/15/2016 4:35:00 AM	A34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Bromoform	ND	0.10	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
2-Butanone	ND	0.74	10		µg/L	1	6/15/2016 4:35:00 AM	A34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/15/2016 4:35:00 AM	A34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Chloroform	ND	0.089	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-01
Project: 2016 2nd Quarter-OW Wells
Collection Date: 6/6/2016 1:35:00 PM
Lab ID: 1606426-006
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
2-Hexanone	ND	0.84	10		µg/L	1	6/15/2016 4:35:00 AM	A34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/15/2016 4:35:00 AM	A34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Styrene	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/15/2016 4:35:00 AM	A34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/15/2016 4:35:00 AM	A34909
Surr: 1,2-Dichloroethane-d4	92.3	0	70-130		%Rec	1	6/15/2016 4:35:00 AM	A34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-01
Project: 2016 2nd Quarter-OW Wells
Collection Date: 6/6/2016 1:35:00 PM
Lab ID: 1606426-006
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 4-Bromofluorobenzene	100	0	70-130		%Rec	1	6/15/2016 4:35:00 AM	A34909
Surr: Dibromofluoromethane	92.0	0	70-130		%Rec	1	6/15/2016 4:35:00 AM	A34909
Surr: Toluene-d8	98.5	0	70-130		%Rec	1	6/15/2016 4:35:00 AM	A34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 2016 2nd Quarter-OW Wells
Collection Date: 6/6/2016 2:10:00 PM
Lab ID: 1606426-007
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/9/2016 4:57:56 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 4:57:56 PM	25749
Surr: DNOP	101	0	70-141		%Rec	1	6/9/2016 4:57:56 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.047	0.025	0.050	J	mg/L	1	6/13/2016 8:29:20 PM	A34874
Surr: BFB	115	0	66.4-120		%Rec	1	6/13/2016 8:29:20 PM	A34874
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.22	0.023	0.10		mg/L	1	6/9/2016 10:34:14 PM	R34830
Chloride	960	2.7	50		mg/L	100	6/20/2016 11:43:46 PM	A35046
Bromide	0.94	0.032	0.10		mg/L	1	6/20/2016 11:31:21 PM	A35046
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/9/2016 10:34:14 PM	R34830
Sulfate	200	1.3	10		mg/L	20	6/9/2016 10:46:39 PM	R34830
Nitrate+Nitrite as N	0.49	0.42	1.0	J	mg/L	5	6/10/2016 2:30:04 AM	R34830
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.065	0.0013	0.0020		mg/L	1	6/10/2016 4:39:02 PM	A34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 4:39:02 PM	A34847
Calcium	120	1.3	5.0		mg/L	5	6/10/2016 4:41:00 PM	A34847
Chromium	ND	0.0018	0.0060		mg/L	1	6/10/2016 4:39:02 PM	A34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 4:39:02 PM	A34847
Iron	ND	0.0091	0.020		mg/L	1	6/10/2016 4:39:02 PM	A34847
Magnesium	22	0.013	1.0		mg/L	1	6/10/2016 4:39:02 PM	A34847
Manganese	0.11	0.00032	0.0020	*	mg/L	1	6/10/2016 4:39:02 PM	A34847
Potassium	2.0	0.18	1.0		mg/L	1	6/10/2016 4:39:02 PM	A34847
Silver	ND	0.0028	0.0050		mg/L	1	6/10/2016 4:39:02 PM	A34847
Sodium	720	0.96	10		mg/L	10	6/13/2016 4:05:46 PM	A34876
Zinc	0.13	0.0028	0.010		mg/L	1	6/10/2016 4:39:02 PM	A34847
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.064	0.0011	0.0020		mg/L	1	6/20/2016 4:03:28 PM	25859
Cadmium	ND	0.00062	0.0020		mg/L	1	6/17/2016 6:38:57 PM	25859
Chromium	ND	0.0022	0.0060		mg/L	1	6/17/2016 6:38:57 PM	25859
Copper	ND	0.0051	0.0060		mg/L	1	6/17/2016 6:38:57 PM	25859
Iron	0.010	0.0072	0.020	J	mg/L	1	6/20/2016 4:03:28 PM	25859
Manganese	0.11	0.0015	0.0020	*	mg/L	1	6/20/2016 4:03:28 PM	25859
Silver	ND	0.0021	0.0050		mg/L	1	6/17/2016 6:38:57 PM	25859
Zinc	ND	0.0039	0.010		mg/L	1	6/17/2016 6:38:57 PM	25859
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0036	0.00069	0.0050	J	mg/L	5	6/16/2016 2:30:56 PM	A34971

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 2016 2nd Quarter-OW Wells
Collection Date: 6/6/2016 2:10:00 PM
Lab ID: 1606426-007
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00022	0.00017	0.00050	J	mg/L	1	6/14/2016 7:20:56 PM	C34915
Selenium	0.016	0.00021	0.0010		mg/L	1	6/14/2016 7:20:56 PM	C34915
Uranium	0.058	0.00026	0.0025	*	mg/L	5	6/16/2016 2:30:56 PM	A34971
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0023	0.0015	0.0050	J	mg/L	5	6/17/2016 6:58:05 PM	25859
Lead	0.00024	0.000047	0.00050	J	mg/L	1	6/16/2016 8:53:53 PM	25859
Selenium	0.015	0.00062	0.0050		mg/L	5	6/17/2016 6:58:05 PM	25859
Uranium	0.057	0.000025	0.0025	*	mg/L	5	6/17/2016 6:58:05 PM	25859
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000066	0.000053	0.00020	J	mg/L	1	6/13/2016 4:01:04 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Toluene	ND	0.12	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Methyl tert-butyl ether (MTBE)	33	0.21	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,2-Dichloroethane (EDC)	0.51	0.12	1.0	J	µg/L	1	6/15/2016 4:59:00 AM	A34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Acetone	ND	4.9	10		µg/L	1	6/15/2016 4:59:00 AM	A34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Bromoform	ND	0.10	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
2-Butanone	ND	0.74	10		µg/L	1	6/15/2016 4:59:00 AM	A34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/15/2016 4:59:00 AM	A34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Chloroform	ND	0.089	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
cis-1,2-DCE	0.31	0.12	1.0	J	µg/L	1	6/15/2016 4:59:00 AM	A34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 2016 2nd Quarter-OW Wells
Collection Date: 6/6/2016 2:10:00 PM
Lab ID: 1606426-007
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,1-Dichloroethane	1.1	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,1-Dichloroethene	0.90	0.11	1.0	J	µg/L	1	6/15/2016 4:59:00 AM	A34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
2-Hexanone	ND	0.84	10		µg/L	1	6/15/2016 4:59:00 AM	A34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/15/2016 4:59:00 AM	A34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Styrene	ND	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/15/2016 4:59:00 AM	A34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/15/2016 4:59:00 AM	A34909
Surr: 1,2-Dichloroethane-d4	91.8	0	70-130		%Rec	1	6/15/2016 4:59:00 AM	A34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 2016 2nd Quarter-OW Wells
Collection Date: 6/6/2016 2:10:00 PM
Lab ID: 1606426-007
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 4-Bromofluorobenzene	99.9	0	70-130		%Rec	1	6/15/2016 4:59:00 AM	A34909
Surr: Dibromofluoromethane	94.8	0	70-130		%Rec	1	6/15/2016 4:59:00 AM	A34909
Surr: Toluene-d8	101	0	70-130		%Rec	1	6/15/2016 4:59:00 AM	A34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2016 2nd Quarter-OW Wells
Collection Date:
Lab ID: 1606426-008
Matrix: TRIP BLANK
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Toluene	ND	0.12	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Acetone	ND	4.9	10		µg/L	1	6/15/2016 5:22:00 AM	A34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Bromoform	ND	0.10	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
2-Butanone	ND	0.74	10		µg/L	1	6/15/2016 5:22:00 AM	A34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/15/2016 5:22:00 AM	A34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Chloroform	ND	0.089	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/15/2016 5:22:00 AM	A34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2016 2nd Quarter-OW Wells
Collection Date:
Lab ID: 1606426-008
Matrix: TRIP BLANK
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
2-Hexanone	ND	0.84	10		µg/L	1	6/15/2016 5:22:00 AM	A34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/15/2016 5:22:00 AM	A34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Styrene	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/15/2016 5:22:00 AM	A34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/15/2016 5:22:00 AM	A34909
Surr: 1,2-Dichloroethane-d4	91.5	0	70-130		%Rec	1	6/15/2016 5:22:00 AM	A34909
Surr: 4-Bromofluorobenzene	98.7	0	70-130		%Rec	1	6/15/2016 5:22:00 AM	A34909
Surr: Dibromofluoromethane	94.5	0	70-130		%Rec	1	6/15/2016 5:22:00 AM	A34909
Surr: Toluene-d8	97.8	0	70-130		%Rec	1	6/15/2016 5:22:00 AM	A34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606426**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A34847**	RunNo: **34847**
Prep Date:	Analysis Date: **6/10/2016**	SeqNo: **1075722** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A34847**	RunNo: **34847**
Prep Date:	Analysis Date: **6/10/2016**	SeqNo: **1075723** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.5	85	115			
Cadmium	0.51	0.0020	0.5000	0	103	85	115			
Calcium	49	1.0	50.00	0	97.9	85	115			
Chromium	0.50	0.0060	0.5000	0	99.5	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.49	0.020	0.5000	0	98.0	85	115			
Magnesium	50	1.0	50.00	0	99.0	85	115			
Manganese	0.49	0.0020	0.5000	0	98.5	85	115			
Potassium	48	1.0	50.00	0	95.4	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	49	1.0	50.00	0	97.8	85	115			
Zinc	0.49	0.010	0.5000	0	98.6	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A34847**	RunNo: **34847**
Prep Date:	Analysis Date: **6/10/2016**	SeqNo: **1075724** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0021	0.0020	0.002000	0	106	50	150			
Cadmium	0.0022	0.0020	0.002000	0	112	50	150			
Calcium	0.52	1.0	0.5000	0	105	50	150			J
Chromium	0.0060	0.0060	0.006000	0	100	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606426**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A34847**	RunNo: **34847**
Prep Date:	Analysis Date: **6/10/2016**	SeqNo: **1075724** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0054	0.0060	0.006000	0	89.2	50	150			J
Iron	0.020	0.020	0.02000	0	98.4	50	150			J
Magnesium	0.53	1.0	0.5000	0	106	50	150			J
Manganese	0.0020	0.0020	0.002000	0	102	50	150			
Potassium	0.49	1.0	0.5000	0	98.1	50	150			J
Silver	0.0048	0.0050	0.005000	0	96.4	50	150			J
Sodium	0.51	1.0	0.5000	0	103	50	150			J
Zinc	0.0054	0.010	0.005000	0	108	50	150			J

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A34876**	RunNo: **34876**
Prep Date:	Analysis Date: **6/13/2016**	SeqNo: **1077108** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Sodium	ND	1.0								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A34876**	RunNo: **34876**
Prep Date:	Analysis Date: **6/13/2016**	SeqNo: **1077109** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.48	0.020	0.5000	0	95.4	85	115			
Sodium	49	1.0	50.00	0	98.9	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A34876**	RunNo: **34876**
Prep Date:	Analysis Date: **6/13/2016**	SeqNo: **1077110** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.018	0.020	0.02000	0	92.0	50	150			J
Sodium	0.50	1.0	0.5000	0	101	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606426**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID **MB-25859**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **25859**	RunNo: **34992**
Prep Date: **6/15/2016**	Analysis Date: **6/17/2016**	SeqNo: **1081603** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-25859**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **25859**	RunNo: **34992**
Prep Date: **6/15/2016**	Analysis Date: **6/17/2016**	SeqNo: **1081604** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.5	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Chromium	0.49	0.0060	0.5000	0	97.4	85	115			
Copper	0.50	0.0060	0.5000	0	99.9	85	115			
Iron	0.48	0.020	0.5000	0	96.7	85	115			
Manganese	0.48	0.0020	0.5000	0	96.7	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Zinc	0.48	0.010	0.5000	0	96.5	85	115			

Sample ID **LLLCS-25859**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **25859**	RunNo: **34992**
Prep Date: **6/15/2016**	Analysis Date: **6/17/2016**	SeqNo: **1081605** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	103	50	150			
Cadmium	0.0023	0.0020	0.002000	0	115	50	150			
Chromium	0.0056	0.0060	0.006000	0	93.8	50	150			J
Copper	0.0067	0.0060	0.006000	0	112	50	150			
Iron	0.022	0.020	0.02000	0	110	50	150			
Manganese	0.0022	0.0020	0.002000	0	109	50	150			
Silver	0.0051	0.0050	0.005000	0	102	50	150			
Zinc	0.0062	0.010	0.005000	0	123	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606426**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C34915**	RunNo: **34915**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078549** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.011	0.00050	0.01250	0	91.3	85	115			
Selenium	0.023	0.0010	0.02500	0	91.6	85	115			
Uranium	0.012	0.00050	0.01250	0	93.9	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C34915**	RunNo: **34915**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078550** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00048	0.00050	0.0005000	0	95.5	50	150			J
Selenium	0.00090	0.0010	0.001000	0	90.1	50	150			J
Uranium	0.00047	0.00050	0.0005000	0	95.0	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C34915**	RunNo: **34915**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078551** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A34971**	RunNo: **34971**
Prep Date:	Analysis Date: **6/16/2016**	SeqNo: **1080463** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	105	85	115			
Selenium	0.026	0.0010	0.02500	0	105	85	115			
Uranium	0.012	0.00050	0.01250	0	97.4	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A34971**	RunNo: **34971**
Prep Date:	Analysis Date: **6/16/2016**	SeqNo: **1080464** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	112	50	150			
Selenium	0.0012	0.0010	0.001000	0	121	50	150			
Uranium	0.00050	0.00050	0.0005000	0	100	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606426**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A34971**	RunNo: **34971**
Prep Date:	Analysis Date: **6/16/2016**	SeqNo: **1080465** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606426**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID	**MB-25859**	SampType:	**MBLK**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**PBW**	Batch ID:	**25859**		RunNo:	**34984**				
Prep Date:	**6/15/2016**	Analysis Date:	**6/16/2016**		SeqNo:	**1081261**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Uranium	ND	0.00050								

Sample ID	**MSLCS-25859**	SampType:	**LCS**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**LCSW**	Batch ID:	**25859**		RunNo:	**34984**				
Prep Date:	**6/15/2016**	Analysis Date:	**6/16/2016**		SeqNo:	**1081262**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	91.3	85	115			
Lead	0.012	0.00050	0.01250	0	98.5	85	115			
Uranium	0.012	0.00050	0.01250	0	97.6	85	115			

Sample ID	**MSLLLCS-25859**	SampType:	**LCSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**BatchQC**	Batch ID:	**25859**		RunNo:	**34984**				
Prep Date:	**6/15/2016**	Analysis Date:	**6/16/2016**		SeqNo:	**1081263**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00096	0.0010	0.001000	0	96.5	50	150			J
Lead	0.00051	0.00050	0.0005000	0	102	50	150			
Uranium	0.00050	0.00050	0.0005000	0	100	50	150			

Sample ID	**MB-25859**	SampType:	**MBLK**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**PBW**	Batch ID:	**25859**		RunNo:	**34995**				
Prep Date:	**6/15/2016**	Analysis Date:	**6/17/2016**		SeqNo:	**1081667**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID	**MSLCS-25859**	SampType:	**LCS**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**LCSW**	Batch ID:	**25859**		RunNo:	**34995**				
Prep Date:	**6/15/2016**	Analysis Date:	**6/17/2016**		SeqNo:	**1081668**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.022	0.0010	0.02500	0	90.0	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606426**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID	**MSLLLCS-25859**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**25859**	RunNo:	**34995**					
Prep Date:	**6/15/2016**	Analysis Date:	**6/17/2016**	SeqNo:	**1081669**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.00079	0.0010	0.001000	0	79.4	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606426**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID	**MB-25806**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**25806**	RunNo:	**34868**					
Prep Date:	**6/13/2016**	Analysis Date:	**6/13/2016**	SeqNo:	**1076845**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000090	0.00020								J

Sample ID	**LCS-25806**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**25806**	RunNo:	**34868**					
Prep Date:	**6/13/2016**	Analysis Date:	**6/13/2016**	SeqNo:	**1076846**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.0	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606426**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R34830**	RunNo: **34830**
Prep Date:	Analysis Date: **6/9/2016**	SeqNo: **1075096** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R34830**	RunNo: **34830**
Prep Date:	Analysis Date: **6/9/2016**	SeqNo: **1075097** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	103	90	110			
Chloride	4.9	0.50	5.000	0	98.2	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.9	90	110			
Sulfate	10	0.50	10.00	0	100	90	110			
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A35046**	RunNo: **35046**
Prep Date:	Analysis Date: **6/20/2016**	SeqNo: **1083722** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Bromide	ND	0.10								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A35046**	RunNo: **35046**
Prep Date:	Analysis Date: **6/20/2016**	SeqNo: **1083723** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	95.5	90	110			
Bromide	2.4	0.10	2.500	0	97.0	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606426**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID **LCS-25749**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **25749**	RunNo: **34795**
Prep Date: **6/9/2016**	Analysis Date: **6/9/2016**	SeqNo: **1074145** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.6	1.0	5.000	0	111	71.3	139			
Surr: DNOP	0.53		0.5000		105	70	141			

Sample ID **MB-25749**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **25749**	RunNo: **34795**
Prep Date: **6/9/2016**	Analysis Date: **6/9/2016**	SeqNo: **1074146** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.83		1.000		83.1	70	141			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606426**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **A34874**	RunNo: **34874**
Prep Date:	Analysis Date: **6/13/2016**	SeqNo: **1076985** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	22		20.00		109	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **A34874**	RunNo: **34874**
Prep Date:	Analysis Date: **6/13/2016**	SeqNo: **1076986** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.42	0.050	0.5000	0	84.9	80	120			
Surr: BFB	23		20.00		115	66.4	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606426**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID **100NG LCS2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **A34909**	RunNo: **34909**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078463** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.0	70	130			
Toluene	20	1.0	20.00	0	98.6	70	130			
Chlorobenzene	20	1.0	20.00	0	98.8	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	102	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	94.9	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.4	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.9	70	130			
Surr: Dibromofluoromethane	9.5		10.00		94.7	70	130			
Surr: Toluene-d8	9.8		10.00		98.2	70	130			

Sample ID **rb2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **A34909**	RunNo: **34909**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078464** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	0.22	2.0								J
1-Methylnaphthalene	0.31	4.0								J
2-Methylnaphthalene	0.36	4.0								J
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606426**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID **rb2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **A34909**	RunNo: **34909**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078464** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	1.2	10								J
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606426**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd Quarter-OW Wells

Sample ID **rb2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **A34909**	RunNo: **34909**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078464** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.5	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.1	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.4	70	130			
Surr: Toluene-d8	9.6		10.00		95.9	70	130			

Sample ID **1606426-002AMS2**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **OW-14**	Batch ID: **A34909**	RunNo: **34909**
Prep Date:	Analysis Date: **6/15/2016**	SeqNo: **1078482** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	8500	10	200.0	7264	639	70	130			ES
Toluene	190	10	200.0	2.580	95.2	70	130			
Chlorobenzene	190	10	200.0	0	95.3	70	130			
1,1-Dichloroethene	200	10	200.0	0	98.3	70	130			
Trichloroethene (TCE)	180	10	200.0	0	88.3	70	130			
Surr: 1,2-Dichloroethane-d4	95		100.0		95.0	70	130			
Surr: 4-Bromofluorobenzene	100		100.0		99.9	70	130			
Surr: Dibromofluoromethane	94		100.0		93.7	70	130			
Surr: Toluene-d8	97		100.0		97.1	70	130			

Sample ID **1606426-002AMSD2**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **OW-14**	Batch ID: **A34909**	RunNo: **34909**
Prep Date:	Analysis Date: **6/15/2016**	SeqNo: **1078493** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	8300	10	200.0	7264	536	70	130	2.46	20	ES
Toluene	190	10	200.0	2.580	92.6	70	130	2.76	20	
Chlorobenzene	190	10	200.0	0	94.0	70	130	1.31	20	
1,1-Dichloroethene	190	10	200.0	0	92.9	70	130	5.60	20	
Trichloroethene (TCE)	170	10	200.0	0	86.2	70	130	2.37	20	
Surr: 1,2-Dichloroethane-d4	95		100.0		94.6	70	130	0	0	
Surr: 4-Bromofluorobenzene	100		100.0		99.9	70	130	0	0	
Surr: Dibromofluoromethane	92		100.0		92.4	70	130	0	0	
Surr: Toluene-d8	98		100.0		97.7	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1606426** RcptNo: 1

Received by/date: AT 06/08/16

Logged By: **Ashley Gallegos** **6/8/2016 2:18:00 PM** AG

Completed By: **Ashley Gallegos** **6/8/2016 5:57:58 PM** AG

Reviewed By: 06/09/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 2 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? No
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: per CJ use collection times on sample labels / AT 06/09/16

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

2 Giant Crossing Road, Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:

X Standard ☐ Rush_____

Project Name:

2016 2nd Quarter - OW Wells

Project #:

QUARTERLY SAMPLING

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time (AT 06/08/16)	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1606426	8260+MTBE	WQCC Metals - Total	WQCC Metals - Dissolved - Filtered	8015D (GRO/DRO/MRO)	8270	MAJOR CATIONS/ANIONS	no Anions AT 06/09/16						Air Bubbles (Y or N)
6/6/2016	730	aqueous	FIELD BLANK	3-40ML VOAS	HCL	-001	X												
6/6/2016	~~0845~~ 930	aqueous	OW-14	Misc	Misc	-002	X	X	X	X		X	X						
6/6/2016	1030 ~~1025~~	aqueous	OW-29	Misc	Misc	-003	X	X	X	X		X	X						
6/6/2016	1113 ~~1220~~	aqueous	OW-30	Misc	Misc	-004	X	X	X	X		X	X						
6/6/2016	1345 ~~1240~~	aqueous	OW-13	Misc	Misc	-005	X	X	X	X		X	X						
6/6/2016	1518 ~~1335~~	aqueous	OW-01	Misc	Misc	-006	X	X	X	X		X							
6/6/2016	1410	aqueous	OW-10	Misc	Misc	-007	X	X	X	X		X							
		aqueous		Misc	Misc	-00													
6/6/2016		aqueous	TRIP BLANK	Misc	Misc	-008	X												

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
~~6/6/2016~~ 6/8/16	1125			6/8/16	1138	
6/8/16	1448			06/08/16	1418	

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 05, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW OrderNo.: 1606427

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 12 sample(s) on 6/8/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 7:00:00 AM
Lab ID: 1606427-001
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Toluene	ND	0.12	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Acetone	ND	4.9	10		µg/L	1	6/14/2016 3:44:00 PM	R34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Bromoform	ND	0.10	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
2-Butanone	ND	0.74	10		µg/L	1	6/14/2016 3:44:00 PM	R34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/14/2016 3:44:00 PM	R34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Chloroform	ND	0.089	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/14/2016 3:44:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 7:00:00 AM
Lab ID: 1606427-001
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
2-Hexanone	ND	0.84	10		µg/L	1	6/14/2016 3:44:00 PM	R34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/14/2016 3:44:00 PM	R34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Styrene	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/14/2016 3:44:00 PM	R34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/14/2016 3:44:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	95.0	0	70-130		%Rec	1	6/14/2016 3:44:00 PM	R34909
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	1	6/14/2016 3:44:00 PM	R34909
Surr: Dibromofluoromethane	95.9	0	70-130		%Rec	1	6/14/2016 3:44:00 PM	R34909
Surr: Toluene-d8	97.3	0	70-130		%Rec	1	6/14/2016 3:44:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 8:50:00 AM
Lab ID: 1606427-002
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/9/2016 2:34:45 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 2:34:45 PM	25749
Surr: DNOP	87.9	0	70-141		%Rec	1	6/9/2016 2:34:45 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.44	0.025	0.050		mg/L	1	6/13/2016 8:52:37 PM	A34874
Surr: BFB	163	0	66.4-120	S	%Rec	1	6/13/2016 8:52:37 PM	A34874
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	1.7	0.023	0.10		mg/L	1	6/9/2016 11:23:53 PM	R34830
Chloride	340	0.55	10		mg/L	20	6/9/2016 11:36:18 PM	R34830
Bromide	0.43	0.032	0.10		mg/L	1	6/21/2016 12:20:59 AM	A35046
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/9/2016 11:23:53 PM	R34830
Sulfate	19	0.064	0.50		mg/L	1	6/9/2016 11:23:53 PM	R34830
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/10/2016 2:42:29 AM	R34830
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.68	0.0013	0.0020		mg/L	1	6/10/2016 4:42:47 PM	B34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 4:42:47 PM	B34847
Calcium	89	0.26	1.0		mg/L	1	6/10/2016 4:42:47 PM	B34847
Chromium	ND	0.0018	0.0060		mg/L	1	6/10/2016 4:42:47 PM	B34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 4:42:47 PM	B34847
Iron	1.8	0.045	0.10	*	mg/L	5	6/10/2016 4:44:28 PM	B34847
Magnesium	17	0.013	1.0		mg/L	1	6/10/2016 4:42:47 PM	B34847
Manganese	1.1	0.0016	0.010	*	mg/L	5	6/10/2016 4:44:28 PM	B34847
Potassium	0.70	0.18	1.0	J	mg/L	1	6/10/2016 4:42:47 PM	B34847
Silver	ND	0.0028	0.0050		mg/L	1	6/10/2016 4:42:47 PM	B34847
Sodium	430	0.48	5.0		mg/L	5	6/10/2016 4:44:28 PM	B34847
Zinc	0.055	0.0028	0.010		mg/L	1	6/10/2016 4:42:47 PM	B34847
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	1.6	0.0053	0.010		mg/L	5	6/15/2016 1:50:43 PM	25841
Cadmium	ND	0.00062	0.0020		mg/L	1	6/15/2016 1:49:00 PM	25841
Chromium	0.0034	0.0022	0.0060	J	mg/L	1	6/15/2016 1:49:00 PM	25841
Copper	ND	0.0051	0.0060		mg/L	1	6/15/2016 1:49:00 PM	25841
Iron	5.6	0.072	0.20	*	mg/L	10	6/20/2016 4:05:22 PM	25841
Manganese	1.2	0.0076	0.010	*	mg/L	5	6/15/2016 1:50:43 PM	25841
Silver	ND	0.0021	0.0050		mg/L	1	6/15/2016 1:49:00 PM	25841
Zinc	0.022	0.0039	0.010		mg/L	1	6/15/2016 1:49:00 PM	25841
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0086	0.00014	0.0010		mg/L	1	6/16/2016 2:34:00 PM	A34971

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 8:50:00 AM
Lab ID: 1606427-002
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00017	0.00050		mg/L	1	6/16/2016 2:34:00 PM	A34971
Selenium	0.0062	0.0011	0.0050		mg/L	5	6/23/2016 2:59:49 PM	C35122
Uranium	0.00089	0.000051	0.00050		mg/L	1	6/16/2016 2:34:00 PM	A34971
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0082	0.00029	0.0010		mg/L	1	6/15/2016 6:35:11 PM	25841
Lead	0.0053	0.000047	0.00050		mg/L	1	6/15/2016 6:35:11 PM	25841
Selenium	0.0059	0.0025	0.020	J	mg/L	20	6/16/2016 8:56:54 PM	25841
Uranium	0.0015	0.0000049	0.00050		mg/L	1	6/15/2016 6:35:11 PM	25841
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000080	0.000053	0.00020	J	mg/L	1	6/13/2016 4:03:05 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	4.5	0.096	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Toluene	0.13	0.12	1.0	J	µg/L	1	6/14/2016 4:07:00 PM	R34909
Ethylbenzene	5.1	0.11	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Methyl tert-butyl ether (MTBE)	140	0.21	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,2,4-Trimethylbenzene	0.15	0.11	1.0	J	µg/L	1	6/14/2016 4:07:00 PM	R34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Naphthalene	0.60	0.093	2.0	J	µg/L	1	6/14/2016 4:07:00 PM	R34909
1-Methylnaphthalene	1.2	0.20	4.0	J	µg/L	1	6/14/2016 4:07:00 PM	R34909
2-Methylnaphthalene	0.44	0.16	4.0	J	µg/L	1	6/14/2016 4:07:00 PM	R34909
Acetone	12	4.9	10		µg/L	1	6/14/2016 4:07:00 PM	R34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Bromoform	ND	0.10	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
2-Butanone	ND	0.74	10		µg/L	1	6/14/2016 4:07:00 PM	R34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/14/2016 4:07:00 PM	R34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Chloroform	ND	0.089	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 8:50:00 AM
Lab ID: 1606427-002
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,1-Dichloroethane	0.34	0.11	1.0	J	µg/L	1	6/14/2016 4:07:00 PM	R34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
2-Hexanone	ND	0.84	10		µg/L	1	6/14/2016 4:07:00 PM	R34909
Isopropylbenzene	1.1	0.10	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/14/2016 4:07:00 PM	R34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
n-Butylbenzene	0.40	0.16	3.0	J	µg/L	1	6/14/2016 4:07:00 PM	R34909
n-Propylbenzene	0.91	0.13	1.0	J	µg/L	1	6/14/2016 4:07:00 PM	R34909
sec-Butylbenzene	0.54	0.12	1.0	J	µg/L	1	6/14/2016 4:07:00 PM	R34909
Styrene	ND	0.11	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
tert-Butylbenzene	0.28	0.12	1.0	J	µg/L	1	6/14/2016 4:07:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/14/2016 4:07:00 PM	R34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/14/2016 4:07:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	94.2	0	70-130		%Rec	1	6/14/2016 4:07:00 PM	R34909

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 8:50:00 AM
Lab ID: 1606427-002
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	6/14/2016 4:07:00 PM	R34909
Surr: Dibromofluoromethane	95.2	0	70-130		%Rec	1	6/14/2016 4:07:00 PM	R34909
Surr: Toluene-d8	98.1	0	70-130		%Rec	1	6/14/2016 4:07:00 PM	R34909

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 9:10:00 AM
Lab ID: 1606427-003
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/9/2016 2:56:53 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 2:56:53 PM	25749
Surr: DNOP	88.7	0	70-141		%Rec	1	6/9/2016 2:56:53 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.11	0.025	0.050		mg/L	1	6/13/2016 9:16:02 PM	A34874
Surr: BFB	123	0	66.4-120	S	%Rec	1	6/13/2016 9:16:02 PM	A34874
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	1.0	0.023	0.10		mg/L	1	6/9/2016 11:48:42 PM	R34830
Chloride	190	0.55	10		mg/L	20	6/10/2016 12:01:07 AM	R34830
Bromide	1.0	0.032	0.10		mg/L	1	6/21/2016 12:33:23 AM	A35046
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/9/2016 11:48:42 PM	R34830
Sulfate	25	0.064	0.50		mg/L	1	6/9/2016 11:48:42 PM	R34830
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/10/2016 2:54:53 AM	R34830
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.79	0.0013	0.0020		mg/L	1	6/10/2016 4:54:05 PM	B34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 4:54:05 PM	B34847
Calcium	87	0.26	1.0		mg/L	1	6/10/2016 4:54:05 PM	B34847
Chromium	ND	0.0018	0.0060		mg/L	1	6/10/2016 4:54:05 PM	B34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 4:54:05 PM	B34847
Iron	0.10	0.0091	0.020		mg/L	1	6/10/2016 4:54:05 PM	B34847
Magnesium	14	0.013	1.0		mg/L	1	6/10/2016 4:54:05 PM	B34847
Manganese	1.5	0.0016	0.010	*	mg/L	5	6/10/2016 4:55:58 PM	B34847
Potassium	0.57	0.18	1.0	J	mg/L	1	6/10/2016 4:54:05 PM	B34847
Silver	ND	0.0028	0.0050		mg/L	1	6/13/2016 4:07:42 PM	A34876
Sodium	280	0.48	5.0		mg/L	5	6/10/2016 4:55:58 PM	B34847
Zinc	0.0052	0.0028	0.010	J	mg/L	1	6/10/2016 4:54:05 PM	B34847
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.77	0.0011	0.0020		mg/L	1	6/15/2016 1:52:43 PM	25841
Cadmium	ND	0.00062	0.0020		mg/L	1	6/15/2016 1:52:43 PM	25841
Chromium	ND	0.0022	0.0060		mg/L	1	6/15/2016 1:52:43 PM	25841
Copper	0.0092	0.0051	0.0060		mg/L	1	6/15/2016 1:52:43 PM	25841
Iron	0.53	0.0072	0.020	*	mg/L	1	6/15/2016 1:52:43 PM	25841
Manganese	2.0	0.0076	0.010	*	mg/L	5	6/15/2016 1:54:34 PM	25841
Silver	ND	0.0021	0.0050		mg/L	1	6/15/2016 1:52:43 PM	25841
Zinc	0.011	0.0039	0.010		mg/L	1	6/15/2016 1:52:43 PM	25841
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0038	0.00014	0.0010		mg/L	1	6/16/2016 2:40:06 PM	A34971

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 9:10:00 AM
Lab ID: 1606427-003
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00017	0.00050		mg/L	1	6/16/2016 2:40:06 PM	A34971
Selenium	0.0058	0.0021	0.010	J	mg/L	10	6/23/2016 3:18:20 PM	C35122
Uranium	0.0095	0.000051	0.00050		mg/L	1	6/16/2016 2:40:06 PM	A34971
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0047	0.00029	0.0010		mg/L	1	6/15/2016 6:38:11 PM	25841
Lead	0.00048	0.000047	0.00050	J	mg/L	1	6/15/2016 6:38:11 PM	25841
Selenium	0.0045	0.0012	0.010	J	mg/L	10	6/16/2016 9:05:59 PM	25841
Uranium	0.0099	0.0000049	0.00050		mg/L	1	6/15/2016 6:38:11 PM	25841
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000064	0.000053	0.00020	J	mg/L	1	6/13/2016 4:09:20 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	6.0	0.096	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Toluene	ND	0.12	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Ethylbenzene	1.5	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Methyl tert-butyl ether (MTBE)	37	0.21	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,2,4-Trimethylbenzene	0.12	0.11	1.0	J	µg/L	1	6/14/2016 5:18:00 PM	R34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Naphthalene	1.1	0.093	2.0	J	µg/L	1	6/14/2016 5:18:00 PM	R34909
1-Methylnaphthalene	0.63	0.20	4.0	J	µg/L	1	6/14/2016 5:18:00 PM	R34909
2-Methylnaphthalene	0.46	0.16	4.0	J	µg/L	1	6/14/2016 5:18:00 PM	R34909
Acetone	ND	4.9	10		µg/L	1	6/14/2016 5:18:00 PM	R34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Bromoform	ND	0.10	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
2-Butanone	ND	0.74	10		µg/L	1	6/14/2016 5:18:00 PM	R34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/14/2016 5:18:00 PM	R34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Chloroform	ND	0.089	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
cis-1,2-DCE	0.16	0.12	1.0	J	µg/L	1	6/14/2016 5:18:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 9:10:00 AM
Lab ID: 1606427-003
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
2-Hexanone	ND	0.84	10		µg/L	1	6/14/2016 5:18:00 PM	R34909
Isopropylbenzene	0.17	0.10	1.0	J	µg/L	1	6/14/2016 5:18:00 PM	R34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/14/2016 5:18:00 PM	R34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Styrene	ND	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
tert-Butylbenzene	0.23	0.12	1.0	J	µg/L	1	6/14/2016 5:18:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/14/2016 5:18:00 PM	R34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/14/2016 5:18:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	97.0	0	70-130		%Rec	1	6/14/2016 5:18:00 PM	R34909

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 9:10:00 AM
Lab ID: 1606427-003
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	6/14/2016 5:18:00 PM	R34909
Surr: Dibromofluoromethane	94.5	0	70-130		%Rec	1	6/14/2016 5:18:00 PM	R34909
Surr: Toluene-d8	97.5	0	70-130		%Rec	1	6/14/2016 5:18:00 PM	R34909

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 9:25:00 AM
Lab ID: 1606427-004
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/9/2016 3:41:12 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 3:41:12 PM	25749
Surr: DNOP	89.2	0	70-141		%Rec	1	6/9/2016 3:41:12 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/13/2016 9:39:25 PM	A34874
Surr: BFB	108	0	66.4-120		%Rec	1	6/13/2016 9:39:25 PM	A34874
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.56	0.023	0.10		mg/L	1	6/10/2016 12:13:32 AM	R34830
Chloride	870	1.4	25		mg/L	50	6/21/2016 12:58:13 AM	A35046
Bromide	4.1	0.032	0.10		mg/L	1	6/21/2016 12:45:48 AM	A35046
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/10/2016 12:13:32 AM	R34830
Sulfate	320	1.3	10		mg/L	20	6/10/2016 12:25:56 AM	R34830
Nitrate+Nitrite as N	14	0.42	1.0	*	mg/L	5	6/10/2016 3:07:18 AM	R34830
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.065	0.0013	0.0020		mg/L	1	6/10/2016 4:58:00 PM	B34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 4:58:00 PM	B34847
Calcium	32	0.26	1.0		mg/L	1	6/10/2016 4:58:00 PM	B34847
Chromium	0.0038	0.0018	0.0060	J	mg/L	1	6/10/2016 4:58:00 PM	B34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 4:58:00 PM	B34847
Iron	0.23	0.0091	0.020		mg/L	1	6/10/2016 4:58:00 PM	B34847
Magnesium	4.7	0.013	1.0		mg/L	1	6/10/2016 4:58:00 PM	B34847
Manganese	0.033	0.00032	0.0020		mg/L	1	6/10/2016 4:58:00 PM	B34847
Potassium	3.2	0.18	1.0		mg/L	1	6/10/2016 4:58:00 PM	B34847
Silver	ND	0.0028	0.0050		mg/L	1	6/13/2016 4:09:39 PM	A34876
Sodium	780	0.96	10		mg/L	10	6/13/2016 4:11:34 PM	A34876
Zinc	0.023	0.0028	0.010		mg/L	1	6/10/2016 4:58:00 PM	B34847
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.27	0.0011	0.0020		mg/L	1	6/15/2016 2:02:36 PM	25841
Cadmium	ND	0.00062	0.0020		mg/L	1	6/15/2016 2:02:36 PM	25841
Chromium	0.019	0.0022	0.0060		mg/L	1	6/15/2016 2:02:36 PM	25841
Copper	0.011	0.0051	0.0060		mg/L	1	6/15/2016 2:02:36 PM	25841
Iron	6.8	0.072	0.20	*	mg/L	10	6/20/2016 4:07:19 PM	25841
Manganese	0.33	0.0015	0.0020	*	mg/L	1	6/15/2016 2:02:36 PM	25841
Silver	ND	0.0021	0.0050		mg/L	1	6/15/2016 2:02:36 PM	25841
Zinc	0.20	0.0039	0.010		mg/L	1	6/15/2016 2:02:36 PM	25841
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0072	0.0014	0.010	J	mg/L	10	6/23/2016 3:21:23 PM	C35122

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 9:25:00 AM
Lab ID: 1606427-004
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.0016	0.00017	0.00050		mg/L	1	6/16/2016 2:43:10 PM	A34971
Selenium	0.022	0.0021	0.010		mg/L	10	6/23/2016 3:21:23 PM	C35122
Uranium	0.041	0.00051	0.0050	*	mg/L	10	6/23/2016 3:21:23 PM	C35122
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.015	0.050		mg/L	50	6/16/2016 9:12:00 PM	25841
Lead	0.011	0.000047	0.00050		mg/L	1	6/15/2016 6:41:11 PM	25841
Selenium	0.017	0.0062	0.050	J	mg/L	50	6/16/2016 9:12:00 PM	25841
Uranium	0.039	0.000025	0.0025	*	mg/L	5	6/16/2016 9:08:59 PM	25841
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00013	0.000053	0.00020	J	mg/L	1	6/13/2016 4:11:22 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Toluene	ND	0.12	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Methyl tert-butyl ether (MTBE)	0.44	0.21	1.0	J	µg/L	1	6/14/2016 5:41:00 PM	R34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Acetone	ND	4.9	10		µg/L	1	6/14/2016 5:41:00 PM	R34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Bromoform	ND	0.10	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
2-Butanone	ND	0.74	10		µg/L	1	6/14/2016 5:41:00 PM	R34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/14/2016 5:41:00 PM	R34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Chloroform	ND	0.089	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 9:25:00 AM
Lab ID: 1606427-004
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
2-Hexanone	ND	0.84	10		µg/L	1	6/14/2016 5:41:00 PM	R34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/14/2016 5:41:00 PM	R34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Styrene	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/14/2016 5:41:00 PM	R34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/14/2016 5:41:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	96.9	0	70-130		%Rec	1	6/14/2016 5:41:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 9:25:00 AM
Lab ID: 1606427-004
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 4-Bromofluorobenzene	99.5	0	70-130		%Rec	1	6/14/2016 5:41:00 PM	R34909
Surr: Dibromofluoromethane	96.4	0	70-130		%Rec	1	6/14/2016 5:41:00 PM	R34909
Surr: Toluene-d8	98.4	0	70-130		%Rec	1	6/14/2016 5:41:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 10:12:00 AM
Lab ID: 1606427-005
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/9/2016 4:03:13 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 4:03:13 PM	25749
Surr: DNOP	88.4	0	70-141		%Rec	1	6/9/2016 4:03:13 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/13/2016 10:02:49 PM	A34874
Surr: BFB	107	0	66.4-120		%Rec	1	6/13/2016 10:02:49 PM	A34874
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.44	0.023	0.10		mg/L	1	6/10/2016 12:38:21 AM	R34830
Chloride	130	0.55	10		mg/L	20	6/10/2016 12:50:46 AM	R34830
Bromide	1.3	0.032	0.10		mg/L	1	6/21/2016 1:10:38 AM	A35046
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/10/2016 12:38:21 AM	R34830
Sulfate	140	1.3	10		mg/L	20	6/10/2016 12:50:46 AM	R34830
Nitrate+Nitrite as N	21	0.42	1.0	*	mg/L	5	6/10/2016 3:19:43 AM	R34830
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.14	0.0013	0.0020		mg/L	1	6/10/2016 5:01:54 PM	B34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 5:01:54 PM	B34847
Calcium	120	1.3	5.0		mg/L	5	6/10/2016 5:03:49 PM	B34847
Chromium	ND	0.0018	0.0060		mg/L	1	6/10/2016 5:01:54 PM	B34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 5:01:54 PM	B34847
Iron	ND	0.0091	0.020		mg/L	1	6/10/2016 5:01:54 PM	B34847
Magnesium	21	0.013	1.0		mg/L	1	6/10/2016 5:01:54 PM	B34847
Manganese	0.11	0.00032	0.0020	*	mg/L	1	6/10/2016 5:01:54 PM	B34847
Potassium	0.53	0.18	1.0	J	mg/L	1	6/10/2016 5:01:54 PM	B34847
Silver	ND	0.0028	0.0050		mg/L	1	6/13/2016 4:13:30 PM	A34876
Sodium	380	0.48	5.0		mg/L	5	6/10/2016 5:03:49 PM	B34847
Zinc	ND	0.0028	0.010		mg/L	1	6/10/2016 5:01:54 PM	B34847
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.16	0.0011	0.0020		mg/L	1	6/15/2016 2:06:01 PM	25841
Cadmium	ND	0.00062	0.0020		mg/L	1	6/15/2016 2:06:01 PM	25841
Chromium	ND	0.0022	0.0060		mg/L	1	6/15/2016 2:06:01 PM	25841
Copper	ND	0.0051	0.0060		mg/L	1	6/15/2016 2:06:01 PM	25841
Iron	0.82	0.0072	0.020	*	mg/L	1	6/15/2016 2:06:01 PM	25841
Manganese	0.26	0.0015	0.0020	*	mg/L	1	6/15/2016 2:06:01 PM	25841
Silver	ND	0.0021	0.0050		mg/L	1	6/15/2016 2:06:01 PM	25841
Zinc	0.0048	0.0039	0.010	J	mg/L	1	6/15/2016 2:06:01 PM	25841
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0031	0.0014	0.010	J	mg/L	10	6/23/2016 3:24:27 PM	C35122

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 10:12:00 AM
Lab ID: 1606427-005
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00017	0.00050		mg/L	1	6/16/2016 2:58:29 PM	A34971
Selenium	0.0079	0.0021	0.010	J	mg/L	10	6/23/2016 3:24:27 PM	C35122
Uranium	0.015	0.000051	0.00050		mg/L	1	6/16/2016 2:58:29 PM	A34971
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.0029	0.010		mg/L	10	6/16/2016 9:15:00 PM	25841
Lead	0.00098	0.000047	0.00050		mg/L	1	6/15/2016 6:44:12 PM	25841
Selenium	0.0078	0.0012	0.010	J	mg/L	10	6/16/2016 9:15:00 PM	25841
Uranium	0.015	0.0000049	0.00050		mg/L	1	6/15/2016 6:44:12 PM	25841
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000065	0.000053	0.00020	J	mg/L	1	6/13/2016 4:13:24 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Toluene	ND	0.12	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Methyl tert-butyl ether (MTBE)	2.0	0.21	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Acetone	ND	4.9	10		µg/L	1	6/14/2016 6:05:00 PM	R34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Bromoform	ND	0.10	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
2-Butanone	ND	0.74	10		µg/L	1	6/14/2016 6:05:00 PM	R34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/14/2016 6:05:00 PM	R34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Chloroform	ND	0.089	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 10:12:00 AM
Lab ID: 1606427-005
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
2-Hexanone	ND	0.84	10		µg/L	1	6/14/2016 6:05:00 PM	R34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/14/2016 6:05:00 PM	R34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Styrene	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/14/2016 6:05:00 PM	R34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/14/2016 6:05:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	97.4	0	70-130		%Rec	1	6/14/2016 6:05:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 10:12:00 AM
Lab ID: 1606427-005
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	6/14/2016 6:05:00 PM	R34909
Surr: Dibromofluoromethane	96.7	0	70-130		%Rec	1	6/14/2016 6:05:00 PM	R34909
Surr: Toluene-d8	97.4	0	70-130		%Rec	1	6/14/2016 6:05:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OAPIS-1
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 11:00:00 AM
Lab ID: 1606427-006
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	5.2	0.69	1.0		mg/L	1	6/9/2016 4:25:36 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 4:25:36 PM	25749
Surr: DNOP	90.0	0	70-141		%Rec	1	6/9/2016 4:25:36 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	1.2	0.025	0.050		mg/L	1	6/13/2016 10:26:15 PM	A34874
Surr: BFB	268	0	66.4-120	S	%Rec	1	6/13/2016 10:26:15 PM	A34874
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	1.6	0.11	0.50		mg/L	5	6/10/2016 1:03:11 AM	R34830
Chloride	1800	5.5	100		mg/L	200	6/21/2016 1:35:27 AM	A35046
Bromide	2.3	0.032	0.10		mg/L	1	6/21/2016 1:23:02 AM	A35046
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5	H	mg/L	5	6/10/2016 1:03:11 AM	R34830
Sulfate	19	1.3	10		mg/L	20	6/10/2016 1:15:35 AM	R34830
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/10/2016 3:32:08 AM	R34830
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.80	0.0013	0.0020		mg/L	1	6/10/2016 5:05:48 PM	B34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 5:05:48 PM	B34847
Calcium	180	1.3	5.0		mg/L	5	6/10/2016 5:07:34 PM	B34847
Chromium	ND	0.0018	0.0060		mg/L	1	6/10/2016 5:05:48 PM	B34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 5:05:48 PM	B34847
Iron	7.2	0.18	0.40	*	mg/L	20	6/13/2016 4:17:13 PM	A34876
Magnesium	35	0.013	1.0		mg/L	1	6/10/2016 5:05:48 PM	B34847
Manganese	2.0	0.0016	0.010	*	mg/L	5	6/10/2016 5:07:34 PM	B34847
Potassium	4.5	0.18	1.0		mg/L	1	6/10/2016 5:05:48 PM	B34847
Silver	ND	0.0028	0.0050		mg/L	1	6/13/2016 4:15:27 PM	A34876
Sodium	1200	1.9	20		mg/L	20	6/13/2016 4:17:13 PM	A34876
Zinc	0.0047	0.0028	0.010	J	mg/L	1	6/10/2016 5:05:48 PM	B34847
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.77	0.0011	0.0020		mg/L	1	6/15/2016 2:09:47 PM	25841
Cadmium	ND	0.00062	0.0020		mg/L	1	6/15/2016 2:09:47 PM	25841
Chromium	ND	0.0022	0.0060		mg/L	1	6/15/2016 2:09:47 PM	25841
Copper	0.011	0.0051	0.0060		mg/L	1	6/15/2016 2:09:47 PM	25841
Iron	9.2	0.14	0.40	*	mg/L	20	6/20/2016 4:09:16 PM	25841
Manganese	1.9	0.0076	0.010	*	mg/L	5	6/15/2016 2:11:34 PM	25841
Silver	ND	0.0021	0.0050		mg/L	1	6/15/2016 2:09:47 PM	25841
Zinc	0.015	0.0039	0.010		mg/L	1	6/15/2016 2:09:47 PM	25841
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.014	0.0014	0.010	*	mg/L	10	6/23/2016 3:27:30 PM	C35122

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OAPIS-1
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 11:00:00 AM
Lab ID: 1606427-006
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.0017	0.0050		mg/L	10	6/23/2016 3:27:30 PM	C35122
Selenium	0.024	0.0021	0.010		mg/L	10	6/23/2016 3:27:30 PM	C35122
Uranium	0.013	0.00051	0.0050		mg/L	10	6/23/2016 3:27:30 PM	C35122
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.017	0.0015	0.0050	*	mg/L	5	6/16/2016 9:21:01 PM	25841
Lead	0.0055	0.00024	0.0025		mg/L	5	6/16/2016 9:21:01 PM	25841
Selenium	0.024	0.0062	0.050	J	mg/L	50	6/16/2016 9:24:02 PM	25841
Uranium	0.014	0.000025	0.0025		mg/L	5	6/16/2016 9:21:01 PM	25841
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000072	0.000053	0.00020	J	mg/L	1	6/13/2016 4:15:28 PM	25806
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Acenaphthylene	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Aniline	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Anthracene	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Azobenzene	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Benz(a)anthracene	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Benzo(a)pyrene	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Benzo(b)fluoranthene	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Benzo(g,h,i)perylene	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Benzo(k)fluoranthene	ND	15	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Benzoic acid	ND	13	100	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Benzyl alcohol	ND	15	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Bis(2-chloroethoxy)methane	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Bis(2-chloroethyl)ether	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Bis(2-chloroisopropyl)ether	ND	9.5	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Bis(2-ethylhexyl)phthalate	19	13	50	JD	µg/L	1	6/21/2016 5:05:47 PM	25832
4-Bromophenyl phenyl ether	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Butyl benzyl phthalate	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Carbazole	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
4-Chloro-3-methylphenol	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
4-Chloroaniline	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2-Chloronaphthalene	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2-Chlorophenol	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
4-Chlorophenyl phenyl ether	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Chrysene	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Di-n-butyl phthalate	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Di-n-octyl phthalate	25	9.9	50	JD	µg/L	1	6/21/2016 5:05:47 PM	25832

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Lab ID: 1606427-006
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Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Dibenz(a,h)anthracene	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Dibenzofuran	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
1,2-Dichlorobenzene	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
1,3-Dichlorobenzene	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
1,4-Dichlorobenzene	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
3,3´-Dichlorobenzidine	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Diethyl phthalate	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Dimethyl phthalate	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2,4-Dichlorophenol	ND	12	100	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2,4-Dimethylphenol	28	15	50	JD	µg/L	1	6/21/2016 5:05:47 PM	25832
4,6-Dinitro-2-methylphenol	ND	9.0	100	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2,4-Dinitrophenol	ND	14	100	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2,4-Dinitrotoluene	ND	16	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2,6-Dinitrotoluene	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Fluoranthene	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Fluorene	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Hexachlorobenzene	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Hexachlorobutadiene	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Hexachlorocyclopentadiene	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Hexachloroethane	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Indeno(1,2,3-cd)pyrene	ND	15	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Isophorone	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
1-Methylnaphthalene	21	15	50	JD	µg/L	1	6/21/2016 5:05:47 PM	25832
2-Methylnaphthalene	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2-Methylphenol	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
3+4-Methylphenol	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
N-Nitrosodi-n-propylamine	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
N-Nitrosodimethylamine	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
N-Nitrosodiphenylamine	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Naphthalene	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2-Nitroaniline	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
3-Nitroaniline	ND	15	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
4-Nitroaniline	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Nitrobenzene	ND	14	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2-Nitrophenol	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
4-Nitrophenol	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Pentachlorophenol	ND	12	100	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Phenanthrene	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Phenol	ND	9.9	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832

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Client Sample ID: OAPIS-1
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 11:00:00 AM
Lab ID: 1606427-006
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Pyrene	ND	15	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Pyridine	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
1,2,4-Trichlorobenzene	ND	13	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2,4,5-Trichlorophenol	ND	11	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
2,4,6-Trichlorophenol	ND	12	50	D	µg/L	1	6/21/2016 5:05:47 PM	25832
Surr: 2-Fluorophenol	22.1	0	15-123	D	%Rec	1	6/21/2016 5:05:47 PM	25832
Surr: Phenol-d5	24.7	0	4.13-124	D	%Rec	1	6/21/2016 5:05:47 PM	25832
Surr: 2,4,6-Tribromophenol	36.4	0	18.4-134	D	%Rec	1	6/21/2016 5:05:47 PM	25832
Surr: Nitrobenzene-d5	65.2	0	28.8-134	D	%Rec	1	6/21/2016 5:05:47 PM	25832
Surr: 2-Fluorobiphenyl	51.5	0	35.9-125	D	%Rec	1	6/21/2016 5:05:47 PM	25832
Surr: 4-Terphenyl-d14	77.3	0	15-146	D	%Rec	1	6/21/2016 5:05:47 PM	25832
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	150	0.48	5.0		µg/L	5	6/14/2016 6:28:00 PM	R34909
Toluene	1.4	0.12	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Ethylbenzene	18	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Methyl tert-butyl ether (MTBE)	240	1.1	5.0		µg/L	5	6/14/2016 6:28:00 PM	R34909
1,2,4-Trimethylbenzene	12	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,3,5-Trimethylbenzene	0.15	0.12	1.0	J	µg/L	1	6/14/2016 6:52:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Naphthalene	7.5	0.093	2.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1-Methylnaphthalene	74	0.20	4.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
2-Methylnaphthalene	0.44	0.16	4.0	J	µg/L	1	6/14/2016 6:52:00 PM	R34909
Acetone	25	4.9	10		µg/L	1	6/14/2016 6:52:00 PM	R34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Bromoform	ND	0.10	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
2-Butanone	3.7	0.74	10	J	µg/L	1	6/14/2016 6:52:00 PM	R34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/14/2016 6:52:00 PM	R34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Chloroform	ND	0.089	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909

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Lab ID: 1606427-006
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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,1-Dichloroethane	1.3	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
2-Hexanone	ND	0.84	10		µg/L	1	6/14/2016 6:52:00 PM	R34909
Isopropylbenzene	2.6	0.10	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
4-Isopropyltoluene	0.84	0.14	1.0	J	µg/L	1	6/14/2016 6:52:00 PM	R34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/14/2016 6:52:00 PM	R34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
n-Butylbenzene	0.78	0.16	3.0	J	µg/L	1	6/14/2016 6:52:00 PM	R34909
n-Propylbenzene	3.3	0.13	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
sec-Butylbenzene	0.63	0.12	1.0	J	µg/L	1	6/14/2016 6:52:00 PM	R34909
Styrene	ND	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/14/2016 6:52:00 PM	R34909
Xylenes, Total	8.3	0.37	1.5		µg/L	1	6/14/2016 6:52:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	96.2	0	70-130		%Rec	1	6/14/2016 6:52:00 PM	R34909

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Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 4-Bromofluorobenzene	106	0	70-130		%Rec	1	6/14/2016 6:52:00 PM	R34909
Surr: Dibromofluoromethane	92.4	0	70-130		%Rec	1	6/14/2016 6:52:00 PM	R34909
Surr: Toluene-d8	98.5	0	70-130		%Rec	1	6/14/2016 6:52:00 PM	R34909

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Client Sample ID: West LDU
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 1:43:00 PM
Lab ID: 1606427-007
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	7.3	0.69	1.0		mg/L	1	6/9/2016 4:47:42 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 4:47:42 PM	25749
Surr: DNOP	93.4	0	70-141		%Rec	1	6/9/2016 4:47:42 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	3.6	0.025	0.050		mg/L	1	6/13/2016 10:49:40 PM	A34874
Surr: BFB	255	0	66.4-120	S	%Rec	1	6/13/2016 10:49:40 PM	A34874
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.43	0.0013	0.0020		mg/L	1	6/10/2016 5:09:12 PM	B34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 5:09:12 PM	B34847
Chromium	1.3	0.0088	0.030	*	mg/L	5	6/10/2016 5:11:07 PM	B34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 5:09:12 PM	B34847
Iron	0.20	0.0091	0.020		mg/L	1	6/10/2016 5:09:12 PM	B34847
Manganese	0.54	0.00032	0.0020	*	mg/L	1	6/10/2016 5:09:12 PM	B34847
Silver	ND	0.0028	0.0050		mg/L	1	6/13/2016 4:26:48 PM	A34876
Zinc	0.010	0.0028	0.010		mg/L	1	6/10/2016 5:09:12 PM	B34847
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.41	0.0011	0.0020		mg/L	1	6/15/2016 2:13:25 PM	25841
Cadmium	ND	0.00062	0.0020		mg/L	1	6/15/2016 2:13:25 PM	25841
Chromium	1.2	0.011	0.030	*	mg/L	5	6/15/2016 2:15:18 PM	25841
Copper	ND	0.0051	0.0060		mg/L	1	6/15/2016 2:13:25 PM	25841
Iron	0.49	0.0072	0.020	*	mg/L	1	6/15/2016 2:13:25 PM	25841
Manganese	0.50	0.0015	0.0020	*	mg/L	1	6/15/2016 2:13:25 PM	25841
Silver	ND	0.0021	0.0050		mg/L	1	6/15/2016 2:13:25 PM	25841
Zinc	0.016	0.0039	0.010		mg/L	1	6/15/2016 2:13:25 PM	25841
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0044	0.00069	0.0050	J	mg/L	5	6/23/2016 3:30:33 PM	C35122
Lead	ND	0.00084	0.0025		mg/L	5	6/23/2016 3:30:33 PM	C35122
Selenium	0.0044	0.0011	0.0050	J	mg/L	5	6/23/2016 3:30:33 PM	C35122
Uranium	ND	0.00026	0.0025		mg/L	5	6/23/2016 3:30:33 PM	C35122
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0051	0.00029	0.0010		mg/L	1	6/15/2016 6:50:13 PM	25841
Lead	0.00043	0.000047	0.00050	J	mg/L	1	6/15/2016 6:50:13 PM	25841
Selenium	0.0030	0.0012	0.010	J	mg/L	10	6/16/2016 9:27:02 PM	25841
Uranium	0.00034	0.0000049	0.00050	J	mg/L	1	6/15/2016 6:50:13 PM	25841
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000095	0.000053	0.00020	J	mg/L	1	6/13/2016 4:17:32 PM	25806

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: West LDU
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 1:43:00 PM
Lab ID: 1606427-007
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: **BCN**	
Benzene	410	0.96	10		µg/L	10	6/15/2016 12:48:00 PM	A34917
Toluene	49	0.12	1.0		µg/L	1	6/15/2016 1:12:00 PM	A34917
Ethylbenzene	50	0.11	1.0		µg/L	1	6/15/2016 1:12:00 PM	A34917
Methyl tert-butyl ether (MTBE)	3.2	0.21	1.0		µg/L	1	6/15/2016 1:12:00 PM	A34917
1,2,4-Trimethylbenzene	62	0.11	1.0		µg/L	1	6/15/2016 1:12:00 PM	A34917
1,3,5-Trimethylbenzene	8.2	0.12	1.0		µg/L	1	6/15/2016 1:12:00 PM	A34917
Xylenes, Total	140	0.37	1.5		µg/L	1	6/15/2016 1:12:00 PM	A34917
Surr: 1,2-Dichloroethane-d4	94.2	0	70-130		%Rec	1	6/15/2016 1:12:00 PM	A34917
Surr: 4-Bromofluorobenzene	104	0	70-130		%Rec	1	6/15/2016 1:12:00 PM	A34917
Surr: Dibromofluoromethane	96.7	0	70-130		%Rec	1	6/15/2016 1:12:00 PM	A34917
Surr: Toluene-d8	98.7	0	70-130		%Rec	1	6/15/2016 1:12:00 PM	A34917

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: East LDU
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 2:00:00 PM
Lab ID: 1606427-008
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	16	0.69	1.0		mg/L	1	6/9/2016 5:54:14 PM	25750
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 5:54:14 PM	25750
Surr: DNOP	92.8	0	70-141		%Rec	1	6/9/2016 5:54:14 PM	25750
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	4.9	0.025	0.050		mg/L	1	6/13/2016 11:13:11 PM	A34874
Surr: BFB	554	0	66.4-120	S	%Rec	1	6/13/2016 11:13:11 PM	A34874
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.15	0.0013	0.0020		mg/L	1	6/10/2016 5:20:42 PM	B34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 5:20:42 PM	B34847
Chromium	0.44	0.0018	0.0060	*	mg/L	1	6/10/2016 5:20:42 PM	B34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 5:20:42 PM	B34847
Iron	0.36	0.0091	0.020	*	mg/L	1	6/10/2016 5:20:42 PM	B34847
Manganese	3.8	0.0016	0.010	*	mg/L	5	6/10/2016 5:22:40 PM	B34847
Silver	ND	0.0028	0.0050		mg/L	1	6/13/2016 4:28:55 PM	A34876
Zinc	0.011	0.0028	0.010		mg/L	1	6/10/2016 5:20:42 PM	B34847
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.16	0.0011	0.0020		mg/L	1	6/15/2016 2:17:14 PM	25841
Cadmium	ND	0.00062	0.0020		mg/L	1	6/15/2016 2:17:14 PM	25841
Chromium	0.57	0.0022	0.0060	*	mg/L	1	6/15/2016 2:17:14 PM	25841
Copper	0.015	0.0051	0.0060		mg/L	1	6/15/2016 2:17:14 PM	25841
Iron	3.8	0.036	0.10	*	mg/L	5	6/15/2016 2:18:53 PM	25841
Manganese	3.6	0.0076	0.010	*	mg/L	5	6/15/2016 2:18:53 PM	25841
Silver	ND	0.0021	0.0050		mg/L	1	6/15/2016 2:17:14 PM	25841
Zinc	0.088	0.0039	0.010		mg/L	1	6/15/2016 2:17:14 PM	25841
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0038	0.00069	0.0050	J	mg/L	5	6/23/2016 3:36:40 PM	C35122
Lead	ND	0.00084	0.0025		mg/L	5	6/23/2016 3:36:40 PM	C35122
Selenium	0.0020	0.0011	0.0050	J	mg/L	5	6/23/2016 3:36:40 PM	C35122
Uranium	0.00049	0.00026	0.0025	J	mg/L	5	6/23/2016 3:36:40 PM	C35122
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0053	0.00029	0.0010		mg/L	1	6/15/2016 6:53:13 PM	25841
Lead	0.0011	0.000047	0.00050		mg/L	1	6/15/2016 6:53:13 PM	25841
Selenium	0.0017	0.00062	0.0050	J	mg/L	5	6/16/2016 9:30:03 PM	25841
Uranium	0.00062	0.0000049	0.00050		mg/L	1	6/15/2016 6:53:13 PM	25841
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00016	0.000053	0.00020	J	mg/L	1	6/13/2016 4:19:36 PM	25806

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: East LDU
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 2:00:00 PM
Lab ID: 1606427-008
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: **BCN**	
Benzene	360	0.48	5.0		µg/L	5	6/15/2016 12:01:00 PM	A34917
Toluene	32	0.59	5.0		µg/L	5	6/15/2016 12:01:00 PM	A34917
Ethylbenzene	250	0.56	5.0		µg/L	5	6/15/2016 12:01:00 PM	A34917
Methyl tert-butyl ether (MTBE)	13	1.1	5.0		µg/L	5	6/15/2016 12:01:00 PM	A34917
1,2,4-Trimethylbenzene	130	0.55	5.0		µg/L	5	6/15/2016 12:01:00 PM	A34917
1,3,5-Trimethylbenzene	250	0.58	5.0		µg/L	5	6/15/2016 12:01:00 PM	A34917
Xylenes, Total	97	1.8	7.5		µg/L	5	6/15/2016 12:01:00 PM	A34917
Surr: 1,2-Dichloroethane-d4	86.8	0	70-130		%Rec	5	6/15/2016 12:01:00 PM	A34917
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	5	6/15/2016 12:01:00 PM	A34917
Surr: Dibromofluoromethane	92.6	0	70-130		%Rec	5	6/15/2016 12:01:00 PM	A34917
Surr: Toluene-d8	97.9	0	70-130		%Rec	5	6/15/2016 12:01:00 PM	A34917

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: STP1-NW
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 3:00:00 PM
Lab ID: 1606427-009
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/9/2016 7:00:17 PM	25750
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 7:00:17 PM	25750
Surr: DNOP	94.3	0	70-141		%Rec	1	6/9/2016 7:00:17 PM	25750
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/13/2016 11:36:43 PM	A34874
Surr: BFB	108	0	66.4-120		%Rec	1	6/13/2016 11:36:43 PM	A34874
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.058	0.023	0.10	J	mg/L	1	6/10/2016 1:52:49 AM	R34830
Chloride	2400	5.5	100		mg/L	200	6/21/2016 2:00:17 AM	A35046
Bromide	4.1	0.32	1.0		mg/L	10	6/22/2016 1:16:32 AM	A35075
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/10/2016 1:52:49 AM	R34830
Sulfate	150	1.3	10		mg/L	20	6/10/2016 2:05:14 AM	R34830
Nitrate+Nitrite as N	20	0.42	1.0	*	mg/L	5	6/10/2016 4:21:46 AM	R34830
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.17	0.0013	0.0020		mg/L	1	6/10/2016 5:24:33 PM	B34847
Cadmium	ND	0.00075	0.0020		mg/L	1	6/10/2016 5:24:33 PM	B34847
Calcium	120	1.3	5.0		mg/L	5	6/10/2016 5:26:30 PM	B34847
Chromium	ND	0.0018	0.0060		mg/L	1	6/10/2016 5:24:33 PM	B34847
Copper	ND	0.0040	0.0060		mg/L	1	6/10/2016 5:24:33 PM	B34847
Iron	0.067	0.0091	0.020		mg/L	1	6/10/2016 5:24:33 PM	B34847
Magnesium	17	0.013	1.0		mg/L	1	6/10/2016 5:24:33 PM	B34847
Manganese	0.0024	0.00032	0.0020		mg/L	1	6/10/2016 5:24:33 PM	B34847
Potassium	7.0	0.18	1.0		mg/L	1	6/10/2016 5:24:33 PM	B34847
Silver	ND	0.0028	0.0050		mg/L	1	6/13/2016 4:31:05 PM	A34876
Sodium	1500	1.9	20		mg/L	20	6/13/2016 4:33:00 PM	A34876
Zinc	0.0070	0.0028	0.010	J	mg/L	1	6/10/2016 5:24:33 PM	B34847
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.20	0.0011	0.0020		mg/L	1	6/15/2016 2:27:03 PM	25841
Cadmium	ND	0.00062	0.0020		mg/L	1	6/15/2016 2:27:03 PM	25841
Chromium	ND	0.0022	0.0060		mg/L	1	6/15/2016 2:27:03 PM	25841
Copper	ND	0.0051	0.0060		mg/L	1	6/15/2016 2:27:03 PM	25841
Iron	3.0	0.036	0.10	*	mg/L	5	6/15/2016 2:28:48 PM	25841
Manganese	0.056	0.0015	0.0020	*	mg/L	1	6/15/2016 2:27:03 PM	25841
Silver	ND	0.0021	0.0050		mg/L	1	6/15/2016 2:27:03 PM	25841
Zinc	0.053	0.0039	0.010		mg/L	1	6/15/2016 2:27:03 PM	25841
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0082	0.0014	0.010	J	mg/L	10	6/23/2016 3:55:05 PM	C35122

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: STP1-NW
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 3:00:00 PM
Lab ID: 1606427-009
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00084	0.0025		mg/L	5	6/23/2016 3:39:44 PM	C35122
Selenium	0.025	0.0021	0.010		mg/L	10	6/23/2016 3:55:05 PM	C35122
Uranium	0.026	0.00026	0.0025		mg/L	5	6/23/2016 3:39:44 PM	C35122
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.015	0.050		mg/L	50	6/16/2016 9:42:09 PM	25841
Lead	0.0031	0.00024	0.0025		mg/L	5	6/16/2016 9:39:08 PM	25841
Selenium	0.021	0.0062	0.050	J	mg/L	50	6/16/2016 9:42:09 PM	25841
Uranium	0.026	0.000025	0.0025		mg/L	5	6/16/2016 9:39:08 PM	25841
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000075	0.000053	0.00020	J	mg/L	1	6/13/2016 4:21:40 PM	25806
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Toluene	ND	0.12	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Methyl tert-butyl ether (MTBE)	0.60	0.21	1.0	J	µg/L	1	6/14/2016 7:39:00 PM	R34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1-Methylnaphthalene	0.45	0.20	4.0	J	µg/L	1	6/14/2016 7:39:00 PM	R34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Acetone	ND	4.9	10		µg/L	1	6/14/2016 7:39:00 PM	R34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Bromoform	ND	0.10	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
2-Butanone	ND	0.74	10		µg/L	1	6/14/2016 7:39:00 PM	R34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/14/2016 7:39:00 PM	R34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Chloroform	ND	0.089	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: STP1-NW
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 3:00:00 PM
Lab ID: 1606427-009
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
2-Hexanone	ND	0.84	10		µg/L	1	6/14/2016 7:39:00 PM	R34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/14/2016 7:39:00 PM	R34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Styrene	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/14/2016 7:39:00 PM	R34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/14/2016 7:39:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	95.7	0	70-130		%Rec	1	6/14/2016 7:39:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: STP1-NW
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 3:00:00 PM
Lab ID: 1606427-009
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 4-Bromofluorobenzene	100	0	70-130		%Rec	1	6/14/2016 7:39:00 PM	R34909
Surr: Dibromofluoromethane	95.5	0	70-130		%Rec	1	6/14/2016 7:39:00 PM	R34909
Surr: Toluene-d8	98.0	0	70-130		%Rec	1	6/14/2016 7:39:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-5
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 4:05:00 PM
Lab ID: 1606427-010
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	6.3	0.69	1.0		mg/L	1	6/9/2016 7:22:25 PM	25750
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 7:22:25 PM	25750
Surr: DNOP	95.8	0	70-141		%Rec	1	6/9/2016 7:22:25 PM	25750
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	4.9	0.25	0.50		mg/L	10	6/14/2016 12:00:14 AM	A34874
Surr: BFB	114	0	66.4-120		%Rec	10	6/14/2016 12:00:14 AM	A34874
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	540	0.96	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Toluene	3.8	1.2	10	J	µg/L	10	6/14/2016 8:02:00 PM	R34909
Ethylbenzene	150	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Methyl tert-butyl ether (MTBE)	4.2	2.1	10	J	µg/L	10	6/14/2016 8:02:00 PM	R34909
1,2,4-Trimethylbenzene	46	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,3,5-Trimethylbenzene	17	1.2	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	1.2	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Naphthalene	130	0.93	20		µg/L	10	6/14/2016 8:02:00 PM	R34909
1-Methylnaphthalene	130	2.0	40		µg/L	10	6/14/2016 8:02:00 PM	R34909
2-Methylnaphthalene	150	1.6	40		µg/L	10	6/14/2016 8:02:00 PM	R34909
Acetone	ND	49	100		µg/L	10	6/14/2016 8:02:00 PM	R34909
Bromobenzene	ND	0.98	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Bromodichloromethane	ND	1.4	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Bromoform	ND	1.0	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Bromomethane	ND	7.8	30		µg/L	10	6/14/2016 8:02:00 PM	R34909
2-Butanone	ND	7.4	100		µg/L	10	6/14/2016 8:02:00 PM	R34909
Carbon disulfide	ND	6.0	100		µg/L	10	6/14/2016 8:02:00 PM	R34909
Carbon Tetrachloride	ND	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Chlorobenzene	ND	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Chloroethane	ND	1.9	20		µg/L	10	6/14/2016 8:02:00 PM	R34909
Chloroform	ND	0.89	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Chloromethane	ND	2.1	30		µg/L	10	6/14/2016 8:02:00 PM	R34909
2-Chlorotoluene	ND	4.0	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
4-Chlorotoluene	ND	1.3	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
cis-1,2-DCE	ND	1.2	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	6/14/2016 8:02:00 PM	R34909
Dibromochloromethane	ND	0.87	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Dibromomethane	ND	1.2	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	6/14/2016 8:02:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-5
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 4:05:00 PM
Lab ID: 1606427-010
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,1-Dichloroethane	ND	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,1-Dichloroethene	ND	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,2-Dichloropropane	ND	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,3-Dichloropropane	ND	1.6	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
2,2-Dichloropropane	ND	1.7	20		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,1-Dichloropropene	ND	1.3	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Hexachlorobutadiene	ND	2.0	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
2-Hexanone	ND	8.4	100		µg/L	10	6/14/2016 8:02:00 PM	R34909
Isopropylbenzene	10	1.0	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
4-Isopropyltoluene	7.1	1.4	10	J	µg/L	10	6/14/2016 8:02:00 PM	R34909
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	6/14/2016 8:02:00 PM	R34909
Methylene Chloride	ND	1.9	30		µg/L	10	6/14/2016 8:02:00 PM	R34909
n-Butylbenzene	16	1.6	30	J	µg/L	10	6/14/2016 8:02:00 PM	R34909
n-Propylbenzene	26	1.3	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
sec-Butylbenzene	7.9	1.2	10	J	µg/L	10	6/14/2016 8:02:00 PM	R34909
Styrene	ND	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
tert-Butylbenzene	ND	1.2	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	6/14/2016 8:02:00 PM	R34909
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
trans-1,2-DCE	ND	4.0	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,1,1-Trichloroethane	ND	0.91	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Trichlorofluoromethane	ND	2.0	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	6/14/2016 8:02:00 PM	R34909
Vinyl chloride	ND	2.0	10		µg/L	10	6/14/2016 8:02:00 PM	R34909
Xylenes, Total	110	3.7	15		µg/L	10	6/14/2016 8:02:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	94.4	0	70-130		%Rec	10	6/14/2016 8:02:00 PM	R34909
Surr: 4-Bromofluorobenzene	99.1	0	70-130		%Rec	10	6/14/2016 8:02:00 PM	R34909
Surr: Dibromofluoromethane	93.4	0	70-130		%Rec	10	6/14/2016 8:02:00 PM	R34909
Surr: Toluene-d8	97.7	0	70-130		%Rec	10	6/14/2016 8:02:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-6
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 4:30:00 PM
Lab ID: 1606427-011
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	35	0.69	1.0		mg/L	1	6/9/2016 7:44:12 PM	25750
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 7:44:12 PM	25750
Surr: DNOP	99.9	0	70-141		%Rec	1	6/9/2016 7:44:12 PM	25750
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	7.0	0.25	0.50		mg/L	10	6/14/2016 12:23:48 AM	A34874
Surr: BFB	128	0	66.4-120	S	%Rec	10	6/14/2016 12:23:48 AM	A34874
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	300	0.96	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Toluene	85	1.2	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Ethylbenzene	250	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Methyl tert-butyl ether (MTBE)	25	2.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,2,4-Trimethylbenzene	74	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,3,5-Trimethylbenzene	120	1.2	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	1.2	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Naphthalene	540	0.93	20		µg/L	10	6/14/2016 8:26:00 PM	R34909
1-Methylnaphthalene	310	2.0	40		µg/L	10	6/14/2016 8:26:00 PM	R34909
2-Methylnaphthalene	380	1.6	40		µg/L	10	6/14/2016 8:26:00 PM	R34909
Acetone	ND	49	100		µg/L	10	6/14/2016 8:26:00 PM	R34909
Bromobenzene	ND	0.98	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Bromodichloromethane	ND	1.4	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Bromoform	ND	1.0	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Bromomethane	ND	7.8	30		µg/L	10	6/14/2016 8:26:00 PM	R34909
2-Butanone	ND	7.4	100		µg/L	10	6/14/2016 8:26:00 PM	R34909
Carbon disulfide	ND	6.0	100		µg/L	10	6/14/2016 8:26:00 PM	R34909
Carbon Tetrachloride	ND	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Chlorobenzene	ND	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Chloroethane	ND	1.9	20		µg/L	10	6/14/2016 8:26:00 PM	R34909
Chloroform	ND	0.89	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Chloromethane	ND	2.1	30		µg/L	10	6/14/2016 8:26:00 PM	R34909
2-Chlorotoluene	ND	4.0	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
4-Chlorotoluene	ND	1.3	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
cis-1,2-DCE	ND	1.2	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	6/14/2016 8:26:00 PM	R34909
Dibromochloromethane	ND	0.87	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Dibromomethane	ND	1.2	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	6/14/2016 8:26:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-6
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date: 6/7/2016 4:30:00 PM
Lab ID: 1606427-011
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,1-Dichloroethane	ND	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,1-Dichloroethene	ND	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,2-Dichloropropane	ND	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,3-Dichloropropane	ND	1.6	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
2,2-Dichloropropane	ND	1.7	20		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,1-Dichloropropene	ND	1.3	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Hexachlorobutadiene	ND	2.0	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
2-Hexanone	ND	8.4	100		µg/L	10	6/14/2016 8:26:00 PM	R34909
Isopropylbenzene	25	1.0	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
4-Isopropyltoluene	12	1.4	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	6/14/2016 8:26:00 PM	R34909
Methylene Chloride	ND	1.9	30		µg/L	10	6/14/2016 8:26:00 PM	R34909
n-Butylbenzene	29	1.6	30	J	µg/L	10	6/14/2016 8:26:00 PM	R34909
n-Propylbenzene	54	1.3	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
sec-Butylbenzene	10	1.2	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Styrene	ND	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
tert-Butylbenzene	ND	1.2	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	6/14/2016 8:26:00 PM	R34909
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
trans-1,2-DCE	ND	4.0	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,1,1-Trichloroethane	ND	0.91	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Trichlorofluoromethane	ND	2.0	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	6/14/2016 8:26:00 PM	R34909
Vinyl chloride	ND	2.0	10		µg/L	10	6/14/2016 8:26:00 PM	R34909
Xylenes, Total	690	3.7	15		µg/L	10	6/14/2016 8:26:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	90.4	0	70-130		%Rec	10	6/14/2016 8:26:00 PM	R34909
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	10	6/14/2016 8:26:00 PM	R34909
Surr: Dibromofluoromethane	94.0	0	70-130		%Rec	10	6/14/2016 8:26:00 PM	R34909
Surr: Toluene-d8	97.9	0	70-130		%Rec	10	6/14/2016 8:26:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date:
Lab ID: 1606427-012
Matrix: TRIP BLANK
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Toluene	ND	0.12	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Naphthalene	0.60	0.093	2.0	J	µg/L	1	6/14/2016 8:49:00 PM	R34909
1-Methylnaphthalene	0.86	0.20	4.0	J	µg/L	1	6/14/2016 8:49:00 PM	R34909
2-Methylnaphthalene	0.86	0.16	4.0	J	µg/L	1	6/14/2016 8:49:00 PM	R34909
Acetone	ND	4.9	10		µg/L	1	6/14/2016 8:49:00 PM	R34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Bromoform	ND	0.10	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
2-Butanone	ND	0.74	10		µg/L	1	6/14/2016 8:49:00 PM	R34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/14/2016 8:49:00 PM	R34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Chloroform	ND	0.089	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/14/2016 8:49:00 PM	R34909

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 2ND QTR NAP/LDU/OAP/STP1N
Collection Date:
Lab ID: 1606427-012
Matrix: TRIP BLANK
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
2-Hexanone	ND	0.84	10		µg/L	1	6/14/2016 8:49:00 PM	R34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/14/2016 8:49:00 PM	R34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Styrene	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/14/2016 8:49:00 PM	R34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/14/2016 8:49:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	91.1	0	70-130		%Rec	1	6/14/2016 8:49:00 PM	R34909
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	6/14/2016 8:49:00 PM	R34909
Surr: Dibromofluoromethane	95.3	0	70-130		%Rec	1	6/14/2016 8:49:00 PM	R34909
Surr: Toluene-d8	102	0	70-130		%Rec	1	6/14/2016 8:49:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	160610036
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1606427
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	160610036-001	**Sampling Date**	6/7/2016	**Date/Time Received**	6/10/2016 12:20 PM
Client Sample ID	1606427-006G / OAPIS-1	**Sampling Time**	11:00 AM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0930	mg/L	0.01	6/21/2016	MER	EPA 335.4	

Authorized Signature

John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 160610036
Project Name: 1606427

Analytical Results Report

Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.516	mg/L	0.5	103.2	90-110	6/21/2016	6/21/2016

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
160617014-001	Cyanide	ND	0.490	mg/L	0.5	98.0	90-110	6/21/2016	6/21/2016

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	0.481	mg/L	0.5	96.2	1.9	0-20	6/21/2016	6/21/2016

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/L	0.01	6/21/2016	6/21/2016

AR	Acceptable Range
ND	Not Detected
PQL	Practical Quantitation Limit
RPD	Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606427**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B34847**	RunNo: **34847**
Prep Date:	Analysis Date: **6/10/2016**	SeqNo: **1075725** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B34847**	RunNo: **34847**
Prep Date:	Analysis Date: **6/10/2016**	SeqNo: **1075726** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.8	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Calcium	51	1.0	50.00	0	103	85	115			
Chromium	0.49	0.0060	0.5000	0	98.3	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.49	0.020	0.5000	0	97.2	85	115			
Magnesium	52	1.0	50.00	0	103	85	115			
Manganese	0.49	0.0020	0.5000	0	98.1	85	115			
Potassium	50	1.0	50.00	0	99.7	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	51	1.0	50.00	0	102	85	115			
Zinc	0.49	0.010	0.5000	0	97.9	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B34847**	RunNo: **34847**
Prep Date:	Analysis Date: **6/10/2016**	SeqNo: **1075727** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0016	0.0020	0.002000	0	82.5	50	150			J
Cadmium	0.0018	0.0020	0.002000	0	88.5	50	150			J
Calcium	0.55	1.0	0.5000	0	110	50	150			J
Chromium	0.0059	0.0060	0.006000	0	98.7	50	150			J

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606427**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B34847**	RunNo: **34847**
Prep Date:	Analysis Date: **6/10/2016**	SeqNo: **1075727** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0055	0.0060	0.006000	0	91.0	50	150			J
Iron	0.019	0.020	0.02000	0	95.4	50	150			J
Magnesium	0.54	1.0	0.5000	0	108	50	150			J
Manganese	0.0020	0.0020	0.002000	0	103	50	150			
Potassium	0.52	1.0	0.5000	0	105	50	150			J
Silver	0.0053	0.0050	0.005000	0	105	50	150			
Sodium	0.52	1.0	0.5000	0	105	50	150			J
Zinc	0.0059	0.010	0.005000	0	118	50	150			J

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A34876**	RunNo: **34876**
Prep Date:	Analysis Date: **6/13/2016**	SeqNo: **1077108** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Silver	ND	0.0050								
Sodium	ND	1.0								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A34876**	RunNo: **34876**
Prep Date:	Analysis Date: **6/13/2016**	SeqNo: **1077109** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.48	0.020	0.5000	0	95.4	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Sodium	49	1.0	50.00	0	98.9	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A34876**	RunNo: **34876**
Prep Date:	Analysis Date: **6/13/2016**	SeqNo: **1077110** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.018	0.020	0.02000	0	92.0	50	150			J
Silver	0.0055	0.0050	0.005000	0	110	50	150			
Sodium	0.50	1.0	0.5000	0	101	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606427**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID **MB-25841**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **25841**	RunNo: **34920**
Prep Date: **6/14/2016**	Analysis Date: **6/15/2016**	SeqNo: **1078647** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-25841**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **25841**	RunNo: **34920**
Prep Date: **6/14/2016**	Analysis Date: **6/15/2016**	SeqNo: **1078651** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.7	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.48	0.0060	0.5000	0	96.9	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.47	0.020	0.5000	0	94.0	85	115			
Manganese	0.49	0.0020	0.5000	0	97.1	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Zinc	0.48	0.010	0.5000	0	96.5	85	115			

Sample ID **LLLCS-25841**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **25841**	RunNo: **34920**
Prep Date: **6/14/2016**	Analysis Date: **6/15/2016**	SeqNo: **1078652** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0026	0.0020	0.002000	0	128	50	150			
Cadmium	0.0020	0.0020	0.002000	0	100	50	150			
Chromium	0.0059	0.0060	0.006000	0	98.2	50	150			J
Copper	0.0068	0.0060	0.006000	0	114	50	150			
Iron	0.021	0.020	0.02000	0	105	50	150			
Manganese	0.0020	0.0020	0.002000	0	98.5	50	150			J
Silver	0.0048	0.0050	0.005000	0	96.2	50	150			J
Zinc	0.0054	0.010	0.005000	0	108	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606427**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A34971**	RunNo: **34971**
Prep Date:	Analysis Date: **6/16/2016**	SeqNo: **1080463** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	105	85	115			
Lead	0.012	0.00050	0.01250	0	98.9	85	115			
Uranium	0.012	0.00050	0.01250	0	97.4	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A34971**	RunNo: **34971**
Prep Date:	Analysis Date: **6/16/2016**	SeqNo: **1080464** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	112	50	150			
Lead	0.00053	0.00050	0.0005000	0	107	50	150			
Uranium	0.00050	0.00050	0.0005000	0	100	50	150			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A34971**	RunNo: **34971**
Prep Date:	Analysis Date: **6/16/2016**	SeqNo: **1080465** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Uranium	ND	0.00050								

Sample ID **1606427-002DMSLL**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **NAPIS-2**	Batch ID: **A34971**	RunNo: **34971**
Prep Date:	Analysis Date: **6/16/2016**	SeqNo: **1080951** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.034	0.0010	0.02500	0.008649	102	70	130			
Lead	0.013	0.00050	0.01250	0	104	70	130			
Uranium	0.015	0.00050	0.01250	0.0008851	115	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C35122**	RunNo: **35122**
Prep Date:	Analysis Date: **6/23/2016**	SeqNo: **1086625** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.0	85	115			
Lead	0.012	0.00050	0.01250	0	97.7	85	115			
Selenium	0.023	0.0010	0.02500	0	93.9	85	115			
Uranium	0.012	0.00050	0.01250	0	97.1	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606427**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C35122**	RunNo: **35122**
Prep Date:	Analysis Date: **6/23/2016**	SeqNo: **1086627** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00098	0.0010	0.001000	0	98.3	50	150			J
Lead	0.00053	0.00050	0.0005000	0	105	50	150			
Selenium	0.00098	0.0010	0.001000	0	98.0	50	150			J
Uranium	0.00050	0.00050	0.0005000	0	101	50	150			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C35122**	RunNo: **35122**
Prep Date:	Analysis Date: **6/23/2016**	SeqNo: **1086629** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **1606427-002DMSLL**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **NAPIS-2**	Batch ID: **C35122**	RunNo: **35122**
Prep Date:	Analysis Date: **6/23/2016**	SeqNo: **1087022** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.12	0.0050	0.1250	0.006176	92.6	70	130			

Sample ID **1606427-009DMSDL**	SampType: **MSD**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **STP1-NW**	Batch ID: **C35122**	RunNo: **35122**
Prep Date:	Analysis Date: **6/23/2016**	SeqNo: **1087032** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.062	0.0025	0.06250	0	99.3	70	130	0.0871	20	
Uranium	0.094	0.0025	0.06250	0.02570	110	70	130	1.76	20	

Sample ID **1606427-009DMSLL**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **STP1-NW**	Batch ID: **C35122**	RunNo: **35122**
Prep Date:	Analysis Date: **6/23/2016**	SeqNo: **1087033** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.062	0.0025	0.06250	0	99.4	70	130			
Uranium	0.093	0.0025	0.06250	0.02570	107	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606427**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID **MB-25841**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **25841**	RunNo: **34939**
Prep Date: **6/14/2016**	Analysis Date: **6/15/2016**	SeqNo: **1080234** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **MSLCS-25841**	SampType: **LCS**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **LCSW**	Batch ID: **25841**	RunNo: **34939**
Prep Date: **6/14/2016**	Analysis Date: **6/15/2016**	SeqNo: **1080236** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.1	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	94.4	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID **MSLLLCS-25841**	SampType: **LCSLL**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **BatchQC**	Batch ID: **25841**	RunNo: **34939**
Prep Date: **6/14/2016**	Analysis Date: **6/15/2016**	SeqNo: **1080238** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00096	0.0010	0.001000	0	95.9	50	150			J
Lead	0.00052	0.00050	0.0005000	0	104	50	150			
Selenium	0.00085	0.0010	0.001000	0	84.6	50	150			J
Uranium	0.00052	0.00050	0.0005000	0	104	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

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WO#: **1606427**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID	**MB-25806**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**25806**	RunNo:	**34868**					
Prep Date:	**6/13/2016**	Analysis Date:	**6/13/2016**	SeqNo:	**1076845**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000090	0.00020								J

Sample ID	**LCS-25806**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**25806**	RunNo:	**34868**					
Prep Date:	**6/13/2016**	Analysis Date:	**6/13/2016**	SeqNo:	**1076846**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.0	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

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WO#: **1606427**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R34830**	RunNo: **34830**
Prep Date:	Analysis Date: **6/9/2016**	SeqNo: **1075096** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R34830**	RunNo: **34830**
Prep Date:	Analysis Date: **6/9/2016**	SeqNo: **1075097** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	103	90	110			
Chloride	4.9	0.50	5.000	0	98.2	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.9	90	110			
Sulfate	10	0.50	10.00	0	100	90	110			
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A35046**	RunNo: **35046**
Prep Date:	Analysis Date: **6/20/2016**	SeqNo: **1083722** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Bromide	ND	0.10								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A35046**	RunNo: **35046**
Prep Date:	Analysis Date: **6/20/2016**	SeqNo: **1083723** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	95.5	90	110			
Bromide	2.4	0.10	2.500	0	97.0	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A35075**	RunNo: **35075**
Prep Date:	Analysis Date: **6/21/2016**	SeqNo: **1084691** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	ND	0.10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

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WO#: **1606427**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A35075**	RunNo: **35075**
Prep Date:	Analysis Date: **6/21/2016**	SeqNo: **1084692** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.4	0.10	2.500	0	97.9	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

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WO#: **1606427**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID **LCS-25749**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **25749**	RunNo: **34795**
Prep Date: **6/9/2016**	Analysis Date: **6/9/2016**	SeqNo: **1074145** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.6	1.0	5.000	0	111	71.3	139			
Surr: DNOP	0.53		0.5000		105	70	141			

Sample ID **MB-25749**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **25749**	RunNo: **34795**
Prep Date: **6/9/2016**	Analysis Date: **6/9/2016**	SeqNo: **1074146** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.83		1.000		83.1	70	141			

Sample ID **1606427-008BMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **East LDU**	Batch ID: **25750**	RunNo: **34794**
Prep Date: **6/9/2016**	Analysis Date: **6/9/2016**	SeqNo: **1074407** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	23	1.0	5.000	15.97	137	59.4	160			
Surr: DNOP	0.44		0.5000		88.7	70	141			

Sample ID **1606427-008BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **East LDU**	Batch ID: **25750**	RunNo: **34794**
Prep Date: **6/9/2016**	Analysis Date: **6/9/2016**	SeqNo: **1074408** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	22	1.0	5.000	15.97	113	59.4	160	5.28	20	
Surr: DNOP	0.45		0.5000		89.1	70	141	0	0	

Sample ID **LCS-25750**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **25750**	RunNo: **34794**
Prep Date: **6/9/2016**	Analysis Date: **6/9/2016**	SeqNo: **1074417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.4	1.0	5.000	0	87.6	71.3	139			
Surr: DNOP	0.41		0.5000		82.3	70	141			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606427**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID **MB-25750**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **25750**	RunNo: **34794**
Prep Date: **6/9/2016**	Analysis Date: **6/9/2016**	SeqNo: **1074418** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.91		1.000		91.4	70	141			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606427**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **A34874**	RunNo: **34874**
Prep Date:	Analysis Date: **6/13/2016**	SeqNo: **1076985** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	22		20.00		109	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **A34874**	RunNo: **34874**
Prep Date:	Analysis Date: **6/13/2016**	SeqNo: **1076986** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.42	0.050	0.5000	0	84.9	80	120			
Surr: BFB	23		20.00		115	66.4	120			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606427**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **A34917**	RunNo: **34917**
Prep Date:	Analysis Date: **6/15/2016**	SeqNo: **1079903** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	89.7	70	130			
Toluene	19	1.0	20.00	0	92.8	70	130			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.3	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **A34917**	RunNo: **34917**
Prep Date:	Analysis Date: **6/15/2016**	SeqNo: **1079904** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.8	70	130			
Surr: Dibromofluoromethane	9.5		10.00		94.9	70	130			
Surr: Toluene-d8	9.8		10.00		98.3	70	130			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606427**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R34909**	RunNo: **34909**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078285** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.7	70	130			
Toluene	20	1.0	20.00	0	99.5	70	130			
Chlorobenzene	20	1.0	20.00	0	99.1	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	94.6	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	98.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	9.8		10.00		97.9	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R34909**	RunNo: **34909**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078286** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	0.23	2.0								J
1-Methylnaphthalene	0.32	4.0								J
2-Methylnaphthalene	0.34	4.0								J
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606427**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R34909**	RunNo: **34909**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078286** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	1.1	10								J
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	0.17	1.0								J
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606427**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R34909**	RunNo: **34909**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078286** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.7	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.3	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.0	70	130			
Surr: Toluene-d8	9.9		10.00		98.8	70	130			

Sample ID **1606427-002ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **NAPIS-2**	Batch ID: **R34909**	RunNo: **34909**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078416** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	24	1.0	20.00	4.464	97.9	70	130			
Toluene	19	1.0	20.00	0	97.1	70	130			
Chlorobenzene	19	1.0	20.00	0	96.9	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	97.9	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	95.1	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.6	70	130			
Surr: Toluene-d8	9.8		10.00		98.1	70	130			

Sample ID **1606427-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **NAPIS-2**	Batch ID: **R34909**	RunNo: **34909**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078431** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	4.464	95.1	70	130	2.39	20	
Toluene	19	1.0	20.00	0	96.6	70	130	0.558	20	
Chlorobenzene	19	1.0	20.00	0	96.3	70	130	0.528	20	
1,1-Dichloroethene	19	1.0	20.00	0	96.8	70	130	1.13	20	
Trichloroethene (TCE)	19	1.0	20.00	0	93.0	70	130	2.22	20	
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130	0	0	
Surr: Dibromofluoromethane	9.5		10.00		95.3	70	130	0	0	
Surr: Toluene-d8	9.9		10.00		98.8	70	130	0	0	

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606427**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID **mb-25832**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **25832**	RunNo: **35052**
Prep Date: **6/14/2016**	Analysis Date: **6/21/2016**	SeqNo: **1083880** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	6.4	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	3.5	10								J
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	5.0	10								J
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	4.2	10								J
Diethyl phthalate	ND	10								
Dimethyl phthalate	4.4	10								J
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	4.6	20								J

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606427**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID **mb-25832**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **25832**	RunNo: **35052**
Prep Date: **6/14/2016**	Analysis Date: **6/21/2016**	SeqNo: **1083880** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	100		200.0		52.4	15	123			
Surr: Phenol-d5	95		200.0		47.6	4.13	124			
Surr: 2,4,6-Tribromophenol	160		200.0		81.2	18.4	134			
Surr: Nitrobenzene-d5	61		100.0		60.7	28.8	134			
Surr: 2-Fluorobiphenyl	56		100.0		56.3	35.9	125			
Surr: 4-Terphenyl-d14	110		100.0		108	15	146			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606427**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID **lcs-25832**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **25832**	RunNo: **35052**
Prep Date: **6/14/2016**	Analysis Date: **6/21/2016**	SeqNo: **1083881** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	68	10	100.0	0	67.5	35	113			
4-Chloro-3-methylphenol	150	10	200.0	0	76.6	40.7	114			
2-Chlorophenol	140	10	200.0	0	71.1	37.6	113			
1,4-Dichlorobenzene	53	10	100.0	0	53.3	37.7	106			
2,4-Dinitrotoluene	69	10	100.0	0	69.2	37	91			
N-Nitrosodi-n-propylamine	67	10	100.0	0	66.9	45.4	105			
4-Nitrophenol	110	10	200.0	0	57.2	33.4	104			
Pentachlorophenol	130	20	200.0	0	66.4	29.5	94.9			
Phenol	110	10	200.0	0	56.4	30.6	119			
Pyrene	74	10	100.0	0	73.7	26.2	120			
1,2,4-Trichlorobenzene	57	10	100.0	0	57.3	39.9	125			
Surr: 2-Fluorophenol	110		200.0		57.4	15	123			
Surr: Phenol-d5	110		200.0		54.5	4.13	124			
Surr: 2,4,6-Tribromophenol	150		200.0		72.8	18.4	134			
Surr: Nitrobenzene-d5	68		100.0		68.4	28.8	134			
Surr: 2-Fluorobiphenyl	62		100.0		62.4	35.9	125			
Surr: 4-Terphenyl-d14	89		100.0		88.8	15	146			

Sample ID **mb-26049**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **26049**	RunNo: **35322**
Prep Date: **6/24/2016**	Analysis Date: **6/29/2016**	SeqNo: **1092678** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	56		200.0		28.1	15	123			
Surr: Phenol-d5	62		200.0		31.2	4.13	124			
Surr: 2,4,6-Tribromophenol	77		200.0		38.6	18.4	134			
Surr: Nitrobenzene-d5	32		100.0		32.3	28.8	134			
Surr: 2-Fluorobiphenyl	35		100.0		35.4	35.9	125			S
Surr: 4-Terphenyl-d14	63		100.0		62.6	15	146			

Sample ID **lcs-26049**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **26049**	RunNo: **35322**
Prep Date: **6/24/2016**	Analysis Date: **6/29/2016**	SeqNo: **1092679** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	98		200.0		48.8	15	123			
Surr: Phenol-d5	110		200.0		53.0	4.13	124			
Surr: 2,4,6-Tribromophenol	130		200.0		62.5	18.4	134			
Surr: Nitrobenzene-d5	60		100.0		59.8	28.8	134			
Surr: 2-Fluorobiphenyl	64		100.0		64.5	35.9	125			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606427**

05-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Sample ID	**lcs-26049**	SampType:	**LCS**		TestCode:	**EPA Method 8270C: Semivolatiles**				
Client ID:	**LCSW**	Batch ID:	**26049**		RunNo:	**35322**				
Prep Date:	**6/24/2016**	Analysis Date:	**6/29/2016**		SeqNo:	**1092679**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	66		100.0		66.0	15	146			

Sample ID	**lcsd-26049**	SampType:	**LCSD**		TestCode:	**EPA Method 8270C: Semivolatiles**				
Client ID:	**LCSS02**	Batch ID:	**26049**		RunNo:	**35322**				
Prep Date:	**6/24/2016**	Analysis Date:	**6/29/2016**		SeqNo:	**1092680**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	110		200.0		53.8	15	123	0	0	
Surr: Phenol-d5	130		200.0		64.3	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	160		200.0		81.6	18.4	134	0	0	
Surr: Nitrobenzene-d5	68		100.0		67.9	28.8	134	0	0	
Surr: 2-Fluorobiphenyl	76		100.0		76.0	35.9	125	0	0	
Surr: 4-Terphenyl-d14	90		100.0		89.7	15	146	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1606427** RcptNo: 1

Received by/date: AT 06/08/16

Logged By: **Ashley Gallegos** **6/8/2016 2:18:00 PM** AG

Completed By: **Ashley Gallegos** **6/8/2016 6:05:15 PM** AG

Reviewed By: 06/09/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved? 06/09/16	~~Yes~~ ☑	No ☑	
9. Was preservative added to bottles?	Yes ☑	~~No~~ ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 22 / @ 1055 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? Yes
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

For metals analysis: Added 1mL HNO3 to -0006F, -0070, -0080 For acceptable pH. 06/9/16

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address: 92 Giant Crossing Road, Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush

Project Name:
2016 2ND QTR NAP/LDU/OAP/STP1NW/RW

Project #:
QUARTERLY SAMPLING

Project Manager:
C. JOHNSON (cheryl.johnson@wnr.com)

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0°

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1606427	8260B + MTBE	8015D EXTENDED	8021 +MTBE	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	Major CATIONS/ANIONS	8270	CYANIDE	Air Bubbles (Y or N)
6/7/2016	700	H20	FIELD BLANK	3-40ML VOAS	HCL	-001	X								
6/7/2016	850	H20	NAPIS-2	MISC	MISC	-002	X	X		X	X	X			
6/7/2016	910	H20	KA-3	MISC	MISC	-003	X	X		X	X	X			
6/7/2016	925	H20	NAPIS-3	MISC	MISC	-004	X	X		X	X	X			
6/7/2016	1012	H20	NAPIS-1	MISC	MISC	-005	X	X		X	X	X			
6/7/2016	1100	H20	OAPIS-1	MISC	MISC	-006	X	X		X	X	X	2	X	
6/7/2016	1343	H20	WEST LDU	MISC	MISC	-007		X	X	X	X				
6/7/2016	1400	H20	EAST LDU	MISC	MISC	-008		X	X	X	X				
6/7/2016	1500	H20	STP1-NW	MISC	MISC	-009	X	X		X	X	X			
6/7/2016	1605	H20	RW-5	MISC	MISC	-010	X	X							
6/7/2016	1630	H20	RW-6	MISC	MISC	-011	X	X							
6/7/2016		H20	TRIP BLANK	3-40ML VOAS	HCL	-012	X								

Date	Time	Relinquished by	Received by	Date	Time
6/8/2016	1125			6/8/16	1138
6/8/16	1418			06/08/16	1418

Remarks: 8270 - DUPLICATE

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

June 27, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 2nd QTR OrderNo.: 1606390

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/8/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: STP1-EP2
Project: 2016 2nd QTR
Collection Date: 6/8/2016 8:10:00 AM
Lab ID: 1606390-001
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	2.0	0.69	1.0		mg/L	1	6/9/2016 12:17:09 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 12:17:09 PM	25749
Surr: DNOP	102	0	70-141		%Rec	1	6/9/2016 12:17:09 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.13	0.25	D	mg/L	5	6/13/2016 2:38:35 PM	A34874
Surr: BFB	109	0	66.4-120	D	%Rec	5	6/13/2016 2:38:35 PM	A34874
SM5210B: BOD							Analyst: **SMS**	
Biochemical Oxygen Demand	160	2.0	2.0		mg/L	1	6/14/2016 2:26:00 PM	25755
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.48	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Toluene	ND	0.59	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Ethylbenzene	ND	0.56	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,2,4-Trimethylbenzene	ND	0.55	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Naphthalene	ND	0.46	10		µg/L	5	6/14/2016 2:57:00 PM	R34909
1-Methylnaphthalene	ND	1.0	20		µg/L	5	6/14/2016 2:57:00 PM	R34909
2-Methylnaphthalene	ND	0.79	20		µg/L	5	6/14/2016 2:57:00 PM	R34909
Acetone	870	25	50		µg/L	5	6/14/2016 2:57:00 PM	R34909
Bromobenzene	ND	0.49	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Bromodichloromethane	ND	0.70	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Bromoform	ND	0.51	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Bromomethane	ND	3.9	15		µg/L	5	6/14/2016 2:57:00 PM	R34909
2-Butanone	24	3.7	50	J	µg/L	5	6/14/2016 2:57:00 PM	R34909
Carbon disulfide	39	3.0	50	J	µg/L	5	6/14/2016 2:57:00 PM	R34909
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Chlorobenzene	ND	0.57	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Chloroethane	ND	0.96	10		µg/L	5	6/14/2016 2:57:00 PM	R34909
Chloroform	ND	0.44	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Chloromethane	ND	1.1	15		µg/L	5	6/14/2016 2:57:00 PM	R34909
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	6/14/2016 2:57:00 PM	R34909
Dibromochloromethane	ND	0.43	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: STP1-EP2
Project: 2016 2nd QTR
Collection Date: 6/8/2016 8:10:00 AM
Lab ID: 1606390-001
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Dibromomethane	ND	0.60	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
2,2-Dichloropropane	ND	0.83	10		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
2-Hexanone	ND	4.2	50		µg/L	5	6/14/2016 2:57:00 PM	R34909
Isopropylbenzene	ND	0.52	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	6/14/2016 2:57:00 PM	R34909
Methylene Chloride	ND	0.94	15		µg/L	5	6/14/2016 2:57:00 PM	R34909
n-Butylbenzene	ND	0.80	15		µg/L	5	6/14/2016 2:57:00 PM	R34909
n-Propylbenzene	ND	0.66	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
sec-Butylbenzene	ND	0.62	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Styrene	ND	0.55	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	6/14/2016 2:57:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	6/14/2016 2:57:00 PM	R34909
Vinyl chloride	ND	0.98	5.0		µg/L	5	6/14/2016 2:57:00 PM	R34909
Xylenes, Total	ND	1.8	7.5		µg/L	5	6/14/2016 2:57:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	93.5	0	70-130		%Rec	5	6/14/2016 2:57:00 PM	R34909
Surr: 4-Bromofluorobenzene	99.2	0	70-130		%Rec	5	6/14/2016 2:57:00 PM	R34909
Surr: Dibromofluoromethane	96.5	0	70-130		%Rec	5	6/14/2016 2:57:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: STP1-EP2
Project: 2016 2nd QTR
Collection Date: 6/8/2016 8:10:00 AM
Lab ID: 1606390-001
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: Toluene-d8	99.4	0	70-130		%Rec	5	6/14/2016 2:57:00 PM	R34909
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **KS**	
Total Dissolved Solids	4400	52.5	100	*D	mg/L	1	6/10/2016 5:56:00 PM	25764

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-2
Project: 2016 2nd QTR
Collection Date: 6/8/2016 9:00:00 AM
Lab ID: 1606390-002
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	14	0.69	1.0		mg/L	1	6/9/2016 6:50:08 PM	25749
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/9/2016 6:50:08 PM	25749
Surr: DNOP	101	0	70-141		%Rec	1	6/9/2016 6:50:08 PM	25749
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	140	1.3	2.5		mg/L	50	6/13/2016 3:49:00 PM	A34874
Surr: BFB	114	0	66.4-120		%Rec	50	6/13/2016 3:49:00 PM	A34874
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	36000	48	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Toluene	2900	59	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Ethylbenzene	1100	56	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Methyl tert-butyl ether (MTBE)	1700	110	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,2,4-Trimethylbenzene	230	55	500	J	µg/L	500	6/14/2016 3:20:00 PM	R34909
1,3,5-Trimethylbenzene	120	58	500	J	µg/L	500	6/14/2016 3:20:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	58	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	56	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Naphthalene	180	46	1000	J	µg/L	500	6/14/2016 3:20:00 PM	R34909
1-Methylnaphthalene	170	100	2000	J	µg/L	500	6/14/2016 3:20:00 PM	R34909
2-Methylnaphthalene	ND	79	2000		µg/L	500	6/14/2016 3:20:00 PM	R34909
Acetone	ND	2500	5000		µg/L	500	6/14/2016 3:20:00 PM	R34909
Bromobenzene	ND	49	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Bromodichloromethane	ND	70	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Bromoform	ND	51	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Bromomethane	ND	390	1500		µg/L	500	6/14/2016 3:20:00 PM	R34909
2-Butanone	ND	370	5000		µg/L	500	6/14/2016 3:20:00 PM	R34909
Carbon disulfide	ND	300	5000		µg/L	500	6/14/2016 3:20:00 PM	R34909
Carbon Tetrachloride	ND	54	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Chlorobenzene	ND	57	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Chloroethane	ND	96	1000		µg/L	500	6/14/2016 3:20:00 PM	R34909
Chloroform	ND	44	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Chloromethane	ND	110	1500		µg/L	500	6/14/2016 3:20:00 PM	R34909
2-Chlorotoluene	ND	200	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
4-Chlorotoluene	ND	64	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
cis-1,2-DCE	ND	62	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
cis-1,3-Dichloropropene	ND	53	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,2-Dibromo-3-chloropropane	ND	120	1000		µg/L	500	6/14/2016 3:20:00 PM	R34909
Dibromochloromethane	ND	43	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Dibromomethane	ND	60	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,2-Dichlorobenzene	ND	200	500		µg/L	500	6/14/2016 3:20:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-2
Project: 2016 2nd QTR
Collection Date: 6/8/2016 9:00:00 AM
Lab ID: 1606390-002
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,3-Dichlorobenzene	ND	72	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,4-Dichlorobenzene	ND	71	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Dichlorodifluoromethane	ND	180	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,1-Dichloroethane	ND	54	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,1-Dichloroethene	ND	54	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,2-Dichloropropane	ND	55	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,3-Dichloropropane	ND	78	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
2,2-Dichloropropane	ND	83	1000		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,1-Dichloropropene	ND	67	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Hexachlorobutadiene	ND	99	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
2-Hexanone	ND	420	5000		µg/L	500	6/14/2016 3:20:00 PM	R34909
Isopropylbenzene	ND	52	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
4-Isopropyltoluene	ND	70	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
4-Methyl-2-pentanone	ND	210	5000		µg/L	500	6/14/2016 3:20:00 PM	R34909
Methylene Chloride	ND	94	1500		µg/L	500	6/14/2016 3:20:00 PM	R34909
n-Butylbenzene	ND	80	1500		µg/L	500	6/14/2016 3:20:00 PM	R34909
n-Propylbenzene	71	66	500	J	µg/L	500	6/14/2016 3:20:00 PM	R34909
sec-Butylbenzene	ND	62	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Styrene	ND	55	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
tert-Butylbenzene	ND	58	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	56	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	64	1000		µg/L	500	6/14/2016 3:20:00 PM	R34909
Tetrachloroethene (PCE)	ND	76	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
trans-1,2-DCE	ND	200	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
trans-1,3-Dichloropropene	ND	52	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,2,3-Trichlorobenzene	ND	56	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,2,4-Trichlorobenzene	ND	66	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,1,1-Trichloroethane	ND	46	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,1,2-Trichloroethane	ND	64	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Trichloroethene (TCE)	ND	88	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Trichlorofluoromethane	ND	100	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
1,2,3-Trichloropropane	ND	100	1000		µg/L	500	6/14/2016 3:20:00 PM	R34909
Vinyl chloride	ND	98	500		µg/L	500	6/14/2016 3:20:00 PM	R34909
Xylenes, Total	3100	180	750		µg/L	500	6/14/2016 3:20:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	96.2	0	70-130		%Rec	500	6/14/2016 3:20:00 PM	R34909
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	500	6/14/2016 3:20:00 PM	R34909
Surr: Dibromofluoromethane	96.3	0	70-130		%Rec	500	6/14/2016 3:20:00 PM	R34909
Surr: Toluene-d8	99.2	0	70-130		%Rec	500	6/14/2016 3:20:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 2nd QTR
Collection Date: 6/8/2016
Lab ID: 1606390-003
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	0.10	0.096	1.0	J	µg/L	1	6/14/2016 2:10:00 PM	R34909
Toluene	0.18	0.12	1.0	J	µg/L	1	6/14/2016 2:10:00 PM	R34909
Ethylbenzene	0.12	0.11	1.0	J	µg/L	1	6/14/2016 2:10:00 PM	R34909
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Acetone	ND	4.9	10		µg/L	1	6/14/2016 2:10:00 PM	R34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Bromoform	ND	0.10	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
2-Butanone	ND	0.74	10		µg/L	1	6/14/2016 2:10:00 PM	R34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/14/2016 2:10:00 PM	R34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Chloroform	ND	0.089	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/14/2016 2:10:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 2nd QTR
Collection Date: 6/8/2016
Lab ID: 1606390-003
Matrix: AQUEOUS
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
2-Hexanone	ND	0.84	10		µg/L	1	6/14/2016 2:10:00 PM	R34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/14/2016 2:10:00 PM	R34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Styrene	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/14/2016 2:10:00 PM	R34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/14/2016 2:10:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	95.3	0	70-130		%Rec	1	6/14/2016 2:10:00 PM	R34909
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	6/14/2016 2:10:00 PM	R34909
Surr: Dibromofluoromethane	96.3	0	70-130		%Rec	1	6/14/2016 2:10:00 PM	R34909
Surr: Toluene-d8	97.8	0	70-130		%Rec	1	6/14/2016 2:10:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 2nd QTR
Collection Date:
Lab ID: 1606390-004
Matrix: TRIP BLANK
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/13/2016 4:34:59 PM	A34874
Surr: BFB	109	0	66.4-120		%Rec	1	6/13/2016 4:34:59 PM	A34874
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Toluene	ND	0.12	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Naphthalene	ND	0.093	2.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Acetone	ND	4.9	10		µg/L	1	6/14/2016 2:33:00 PM	R34909
Bromobenzene	ND	0.098	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Bromoform	ND	0.10	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Bromomethane	ND	0.78	3.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
2-Butanone	ND	0.74	10		µg/L	1	6/14/2016 2:33:00 PM	R34909
Carbon disulfide	ND	0.60	10		µg/L	1	6/14/2016 2:33:00 PM	R34909
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Chloroethane	ND	0.19	2.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Chloroform	ND	0.089	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Chloromethane	ND	0.21	3.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Dibromomethane	ND	0.12	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 2nd QTR
Collection Date:
Lab ID: 1606390-004
Matrix: TRIP BLANK
Received Date: 6/8/2016 2:18:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
2-Hexanone	ND	0.84	10		µg/L	1	6/14/2016 2:33:00 PM	R34909
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/14/2016 2:33:00 PM	R34909
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Styrene	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/14/2016 2:33:00 PM	R34909
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/14/2016 2:33:00 PM	R34909
Surr: 1,2-Dichloroethane-d4	96.3	0	70-130		%Rec	1	6/14/2016 2:33:00 PM	R34909
Surr: 4-Bromofluorobenzene	99.6	0	70-130		%Rec	1	6/14/2016 2:33:00 PM	R34909
Surr: Dibromofluoromethane	97.0	0	70-130		%Rec	1	6/14/2016 2:33:00 PM	R34909
Surr: Toluene-d8	98.9	0	70-130		%Rec	1	6/14/2016 2:33:00 PM	R34909

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	408		10.0	1	06/13/2016 09:04	WG879524

Method Blank (MB)

(MB) R3143089-1 06/13/16 08:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
COD	4.08	B J	3.00	10.0

L840636-01 Original Sample (OS) • Duplicate (DUP)

(OS) L840636-01 06/13/16 09:01 • (DUP) R3143089-4 06/13/16 09:01

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
COD	1760	1750	50	1.00		20

L840796-01 Original Sample (OS) • Duplicate (DUP)

(OS) L840796-01 06/13/16 09:04 • (DUP) R3143089-7 06/13/16 09:04

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
COD	408	408	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3143089-2 06/13/16 08:57 • (LCSD) R3143089-3 06/13/16 08:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
COD	242	254	255	105	105	90.0-110			0.000	20

L840646-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L840646-01 06/13/16 09:02 • (MS) R3143089-5 06/13/16 09:02 • (MSD) R3143089-6 06/13/16 09:02

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
COD	400	ND	409	408	102	102	1	80.0-120			0.000	20

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Rec.	Recovery.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606390**

27-Jun-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR

Sample ID **1606390-001BMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **STP1-EP2**	Batch ID: **25749**	RunNo: **34795**
Prep Date: **6/9/2016**	Analysis Date: **6/9/2016**	SeqNo: **1074139** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	8.1	1.0	5.000	2.006	122	59.4	160			
Surr: DNOP	0.53		0.5000		106	70	141			

Sample ID **1606390-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **STP1-EP2**	Batch ID: **25749**	RunNo: **34795**
Prep Date: **6/9/2016**	Analysis Date: **6/9/2016**	SeqNo: **1074140** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	7.9	1.0	5.000	2.006	117	59.4	160	2.78	20	
Surr: DNOP	0.54		0.5000		108	70	141	0	0	

Sample ID **LCS-25749**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **25749**	RunNo: **34795**
Prep Date: **6/9/2016**	Analysis Date: **6/9/2016**	SeqNo: **1074145** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.6	1.0	5.000	0	111	71.3	139			
Surr: DNOP	0.53		0.5000		105	70	141			

Sample ID **MB-25749**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **25749**	RunNo: **34795**
Prep Date: **6/9/2016**	Analysis Date: **6/9/2016**	SeqNo: **1074146** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.83		1.000		83.1	70	141			

Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606390**

27-Jun-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **A34874**	RunNo: **34874**
Prep Date:	Analysis Date: **6/13/2016**	SeqNo: **1076985** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	22		20.00		109	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **A34874**	RunNo: **34874**
Prep Date:	Analysis Date: **6/13/2016**	SeqNo: **1076986** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.42	0.050	0.5000	0	84.9	80	120			
Surr: BFB	23		20.00		115	66.4	120			

Sample ID **1606390-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **STP1-EP2**	Batch ID: **A34874**	RunNo: **34874**
Prep Date:	Analysis Date: **6/13/2016**	SeqNo: **1076988** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	2.8	0.25	2.500	0	110	70	130			D
Surr: BFB	120		100.0		122	66.4	120			SD

Sample ID **1606390-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **STP1-EP2**	Batch ID: **A34874**	RunNo: **34874**
Prep Date:	Analysis Date: **6/13/2016**	SeqNo: **1076989** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	2.8	0.25	2.500	0	113	70	130	2.08	20	D
Surr: BFB	120		100.0		121	66.4	120	0	0	SD

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606390**

27-Jun-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R34909**	RunNo: **34909**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078285** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.7	70	130			
Toluene	20	1.0	20.00	0	99.5	70	130			
Chlorobenzene	20	1.0	20.00	0	99.1	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	94.6	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	98.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	9.8		10.00		97.9	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R34909**	RunNo: **34909**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078286** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	0.23	2.0								J
1-Methylnaphthalene	0.32	4.0								J
2-Methylnaphthalene	0.34	4.0								J
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606390**

27-Jun-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R34909**	RunNo: **34909**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078286** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	1.1	10								J
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	0.17	1.0								J
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606390**

27-Jun-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R34909**	RunNo: **34909**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078286** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.7	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.3	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.0	70	130			
Surr: Toluene-d8	9.9		10.00		98.8	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606390**

27-Jun-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR

Sample ID **MB-25755**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **25755**	RunNo: **35147**							
Prep Date: **6/9/2016**	Analysis Date: **6/14/2016**	SeqNo: **1087282**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **MB--25755**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **25755**	RunNo: **35147**							
Prep Date: **6/9/2016**	Analysis Date: **6/14/2016**	SeqNo: **1087283**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **LCS-25755**	SampType: **LCS**	TestCode: **SM5210B: BOD**							
Client ID: **LCSW**	Batch ID: **25755**	RunNo: **35147**							
Prep Date: **6/9/2016**	Analysis Date: **6/14/2016**	SeqNo: **1087284**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	170	2.0	198.0	0	84.2	63	108			

Sample ID **LCSD-25755**	SampType: **LCSD**	TestCode: **SM5210B: BOD**							
Client ID: **LCSS02**	Batch ID: **25755**	RunNo: **35147**							
Prep Date: **6/9/2016**	Analysis Date: **6/14/2016**	SeqNo: **1087285**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	170	2.0	198.0	0	84.2	63	108	0	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606390**

27-Jun-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR

Sample ID **MB-25764**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **25764**	RunNo: **34843**
Prep Date: **6/9/2016**	Analysis Date: **6/10/2016**	SeqNo: **1075554** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID **LCS-25764**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **25764**	RunNo: **34843**
Prep Date: **6/9/2016**	Analysis Date: **6/10/2016**	SeqNo: **1075555** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1040	20.0	1000	0	104	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1606390 RcptNo: 1

Received by/date: AT 06/08/16

Logged By: Ashley Gallegos 6/8/2016 2:18:00 PM

Completed By: Ashley Gallegos 6/8/2016 3:00:14 PM

Reviewed By: JA 06/09/16 @ 1050

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 1 (<2 or >12 unless noted)

Adjusted? No

Checked by: JA

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

ent: Gallup RWP

iling Address: 92 Giant Crossing

one #: 505 722 3833

ail or Fax#:

/QC Package:

Standard ☐ Level 4 (Full Validation)

creditation

NELAP ☐ Other

EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name: 2016 2nd QTR

Project #: RW-2, STP1-EP2,

Project Manager: Cheryl Johnson

Sampler: CJ / Gvigil

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1606390	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	BOD, COD, TDS				Air Bubbles (Y or N)
6/16	0810	H_2O	STP1-EP2	misc	misc	-001			X							X		X				
6/16	0900	H_2O	RW-2	misc	misc	-002			X							X						
6			Field Blank			-003										4						
8			Trip Blank			-004										4						

Date	Time	Relinquished by:	Received by:	Date	Time
6/16	1125			6/16	1138
6/16	1418			06/08/16	1418

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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July 26, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2nd Qtr GW Sampling OrderNo.: 1606613

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 9 sample(s) on 6/11/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-17
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016 1:25:00 PM
Lab ID: 1606613-001
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	2.1	0.69	1.0		mg/L	1	6/13/2016 11:27:52 AM	25801
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 11:27:52 AM	25801
Surr: DNOP	110	0	70-141		%Rec	1	6/13/2016 11:27:52 AM	25801
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	9.2	0.25	0.50		mg/L	10	6/16/2016 2:11:53 AM	A34934
Surr: BFB	132	0	66.4-120	S	%Rec	10	6/16/2016 2:11:53 AM	A34934
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Aniline	ND	2.4	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 9:22:54 PM	25832
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Bis(2-ethylhexyl)phthalate	ND	2.6	10		µg/L	1	6/21/2016 9:22:54 PM	25832
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Carbazole	ND	2.3	10		µg/L	1	6/21/2016 9:22:54 PM	25832
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 9:22:54 PM	25832
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 9:22:54 PM	25832
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 9:22:54 PM	25832
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 9:22:54 PM	25832
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Di-n-octyl phthalate	5.0	2.0	10	J	µg/L	1	6/21/2016 9:22:54 PM	25832
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 9:22:54 PM	25832
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 9:22:54 PM	25832
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 9:22:54 PM	25832

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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Collection Date: 6/10/2016 1:25:00 PM
Lab ID: 1606613-001
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 9:22:54 PM	25832
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 9:22:54 PM	25832
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 9:22:54 PM	25832
2,4-Dimethylphenol	4.4	3.0	10	J	µg/L	1	6/21/2016 9:22:54 PM	25832
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 9:22:54 PM	25832
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 9:22:54 PM	25832
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 9:22:54 PM	25832
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Fluorene	ND	2.7	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 9:22:54 PM	25832
1-Methylnaphthalene	26	2.9	10		µg/L	1	6/21/2016 9:22:54 PM	25832
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 9:22:54 PM	25832
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 9:22:54 PM	25832
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/21/2016 9:22:54 PM	25832
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 9:22:54 PM	25832
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 9:22:54 PM	25832
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Naphthalene	62	2.6	10		µg/L	1	6/21/2016 9:22:54 PM	25832
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 9:22:54 PM	25832
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 9:22:54 PM	25832
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 9:22:54 PM	25832
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 9:22:54 PM	25832
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 9:22:54 PM	25832
Phenanthrene	ND	2.6	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Phenol	9.8	2.0	10	J	µg/L	1	6/21/2016 9:22:54 PM	25832
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 9:22:54 PM	25832
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 9:22:54 PM	25832
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 9:22:54 PM	25832

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-17
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016 1:25:00 PM
Lab ID: 1606613-001
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 9:22:54 PM	25832
Surr: 2-Fluorophenol	44.9	0	15-123		%Rec	1	6/21/2016 9:22:54 PM	25832
Surr: Phenol-d5	40.4	0	4.13-124		%Rec	1	6/21/2016 9:22:54 PM	25832
Surr: 2,4,6-Tribromophenol	82.9	0	18.4-134		%Rec	1	6/21/2016 9:22:54 PM	25832
Surr: Nitrobenzene-d5	73.9	0	28.8-134		%Rec	1	6/21/2016 9:22:54 PM	25832
Surr: 2-Fluorobiphenyl	76.5	0	35.9-125		%Rec	1	6/21/2016 9:22:54 PM	25832
Surr: 4-Terphenyl-d14	52.0	0	15-146		%Rec	1	6/21/2016 9:22:54 PM	25832
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	1900	4.8	50		µg/L	50	6/23/2016 8:40:00 AM	R35079
Toluene	6.0	0.12	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
Ethylbenzene	520	5.6	50		µg/L	50	6/23/2016 8:40:00 AM	R35079
Methyl tert-butyl ether (MTBE)	490	11	50		µg/L	50	6/23/2016 8:40:00 AM	R35079
1,2,4-Trimethylbenzene	230	5.5	50		µg/L	50	6/23/2016 8:40:00 AM	R35079
1,3,5-Trimethylbenzene	4.6	0.12	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
Naphthalene	94	1.9	40		µg/L	20	6/22/2016 1:25:00 PM	R35079
1-Methylnaphthalene	35	0.20	4.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
2-Methylnaphthalene	7.0	0.16	4.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
Acetone	40	4.9	10		µg/L	1	6/22/2016 1:49:00 PM	R35079
Bromobenzene	ND	0.098	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
Bromoform	ND	0.10	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
Bromomethane	ND	0.78	3.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
2-Butanone	6.4	0.74	10	J	µg/L	1	6/22/2016 1:49:00 PM	R35079
Carbon disulfide	ND	0.60	10		µg/L	1	6/22/2016 1:49:00 PM	R35079
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
Chloroethane	ND	0.19	2.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
Chloroform	ND	0.089	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
Chloromethane	ND	0.21	3.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
Dibromomethane	ND	0.12	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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Lab ID: 1606613-001
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
2-Hexanone	ND	0.84	10		µg/L	1	6/22/2016 1:49:00 PM	R35079
Isopropylbenzene	23	0.10	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
4-Isopropyltoluene	2.0	0.14	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/22/2016 1:49:00 PM	R35079
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
n-Butylbenzene	1.6	0.16	3.0	J	µg/L	1	6/22/2016 1:49:00 PM	R35079
n-Propylbenzene	43	0.13	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
sec-Butylbenzene	2.9	0.12	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
Styrene	ND	0.11	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/22/2016 1:49:00 PM	R35079
Xylenes, Total	240	18	75		µg/L	50	6/23/2016 8:40:00 AM	R35079
Surr: 1,2-Dichloroethane-d4	90.0	0	70-130		%Rec	1	6/22/2016 1:49:00 PM	R35079
Surr: 4-Bromofluorobenzene	105	0	70-130		%Rec	1	6/22/2016 1:49:00 PM	R35079
Surr: Dibromofluoromethane	93.8	0	70-130		%Rec	1	6/22/2016 1:49:00 PM	R35079
Surr: Toluene-d8	95.6	0	70-130		%Rec	1	6/22/2016 1:49:00 PM	R35079

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Hall Environmental Analysis Laboratory, Inc.

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Collection Date: 6/10/2016 2:00:00 PM
Lab ID: 1606613-002
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/13/2016 11:49:19 AM	25801
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 11:49:19 AM	25801
Surr: DNOP	117	0	70-141		%Rec	1	6/13/2016 11:49:19 AM	25801
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/15/2016 1:22:12 AM	C34893
Surr: BFB	111	0	66.4-120		%Rec	1	6/15/2016 1:22:12 AM	C34893
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.52	0.023	0.10		mg/L	1	6/14/2016 3:29:31 PM	R34930
Chloride	370	0.55	10		mg/L	20	6/14/2016 3:41:55 PM	R34930
Bromide	2.0	0.032	0.10		mg/L	1	6/14/2016 3:29:31 PM	R34930
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/14/2016 3:29:31 PM	R34930
Sulfate	130	1.3	10		mg/L	20	6/14/2016 3:41:55 PM	R34930
Nitrate+Nitrite as N	7.7	0.46	1.0		mg/L	5	6/27/2016 12:05:20 PM	R35229
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.10	0.0013	0.0020		mg/L	1	6/15/2016 6:03:06 PM	D34920
Cadmium	ND	0.00075	0.0020		mg/L	1	6/15/2016 6:03:06 PM	D34920
Calcium	61	0.26	1.0		mg/L	1	6/15/2016 6:03:06 PM	D34920
Chromium	ND	0.0018	0.0060		mg/L	1	6/15/2016 6:03:06 PM	D34920
Copper	ND	0.0040	0.0060		mg/L	1	6/15/2016 6:03:06 PM	D34920
Iron	0.041	0.0091	0.020		mg/L	1	6/15/2016 6:03:06 PM	D34920
Magnesium	14	0.013	1.0		mg/L	1	6/15/2016 6:03:06 PM	D34920
Manganese	0.0017	0.00032	0.0020	J	mg/L	1	6/15/2016 6:03:06 PM	D34920
Potassium	1.4	0.18	1.0		mg/L	1	6/15/2016 6:03:06 PM	D34920
Silver	ND	0.0028	0.0050		mg/L	1	6/15/2016 6:03:06 PM	D34920
Sodium	370	0.48	5.0		mg/L	5	6/15/2016 6:05:02 PM	D34920
Zinc	0.0037	0.0028	0.010	J	mg/L	1	6/15/2016 6:03:06 PM	D34920
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.15	0.0011	0.0020		mg/L	1	6/28/2016 1:19:02 PM	25969
Cadmium	ND	0.00062	0.0020		mg/L	1	6/28/2016 1:19:02 PM	25969
Chromium	ND	0.0022	0.0060		mg/L	1	6/28/2016 1:19:02 PM	25969
Copper	ND	0.0051	0.0060		mg/L	1	6/28/2016 1:19:02 PM	25969
Iron	2.3	0.036	0.10	*	mg/L	5	6/28/2016 1:20:42 PM	25969
Manganese	0.054	0.0015	0.0020	*	mg/L	1	6/28/2016 1:19:02 PM	25969
Silver	ND	0.0021	0.0050		mg/L	1	6/28/2016 1:19:02 PM	25969
Zinc	0.024	0.0039	0.010		mg/L	1	6/28/2016 1:19:02 PM	25969
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0046	0.00069	0.0050	J	mg/L	5	7/6/2016 7:59:54 PM	B35457

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Lab ID: 1606613-002
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00084	0.0025		mg/L	5	7/6/2016 7:59:54 PM	B35457
Selenium	0.018	0.0042	0.020	J	mg/L	20	7/6/2016 8:02:57 PM	B35457
Uranium	0.030	0.00026	0.0025		mg/L	5	7/6/2016 7:59:54 PM	B35457
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0047	0.0015	0.0050	J	mg/L	5	6/29/2016 10:45:45 AM	25969
Lead	0.0026	0.000047	0.00050		mg/L	1	6/28/2016 7:12:16 PM	25969
Selenium	0.014	0.0025	0.020	J	mg/L	20	6/29/2016 10:48:46 AM	25969
Uranium	0.032	0.000025	0.0025	*	mg/L	5	6/29/2016 10:45:45 AM	25969
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	6/28/2016 2:16:06 PM	26107
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Aniline	ND	2.4	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 9:51:22 PM	25832
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Bis(2-ethylhexyl)phthalate	3.4	2.6	10	J	µg/L	1	6/21/2016 9:51:22 PM	25832
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Carbazole	ND	2.3	10		µg/L	1	6/21/2016 9:51:22 PM	25832
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 9:51:22 PM	25832
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 9:51:22 PM	25832
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 9:51:22 PM	25832
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 9:51:22 PM	25832
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Di-n-octyl phthalate	5.4	2.0	10	J	µg/L	1	6/21/2016 9:51:22 PM	25832

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Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 9:51:22 PM	25832
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 9:51:22 PM	25832
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 9:51:22 PM	25832
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 9:51:22 PM	25832
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 9:51:22 PM	25832
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 9:51:22 PM	25832
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/21/2016 9:51:22 PM	25832
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 9:51:22 PM	25832
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 9:51:22 PM	25832
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 9:51:22 PM	25832
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Fluorene	ND	2.7	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 9:51:22 PM	25832
1-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 9:51:22 PM	25832
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 9:51:22 PM	25832
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 9:51:22 PM	25832
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/21/2016 9:51:22 PM	25832
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 9:51:22 PM	25832
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 9:51:22 PM	25832
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Naphthalene	ND	2.6	10		µg/L	1	6/21/2016 9:51:22 PM	25832
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 9:51:22 PM	25832
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 9:51:22 PM	25832
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 9:51:22 PM	25832
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 9:51:22 PM	25832
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 9:51:22 PM	25832
Phenanthrene	ND	2.6	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Phenol	ND	2.0	10		µg/L	1	6/21/2016 9:51:22 PM	25832

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EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 9:51:22 PM	25832
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 9:51:22 PM	25832
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 9:51:22 PM	25832
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 9:51:22 PM	25832
Surr: 2-Fluorophenol	32.2	0	15-123		%Rec	1	6/21/2016 9:51:22 PM	25832
Surr: Phenol-d5	30.0	0	4.13-124		%Rec	1	6/21/2016 9:51:22 PM	25832
Surr: 2,4,6-Tribromophenol	50.4	0	18.4-134		%Rec	1	6/21/2016 9:51:22 PM	25832
Surr: Nitrobenzene-d5	63.7	0	28.8-134		%Rec	1	6/21/2016 9:51:22 PM	25832
Surr: 2-Fluorobiphenyl	55.8	0	35.9-125		%Rec	1	6/21/2016 9:51:22 PM	25832
Surr: 4-Terphenyl-d14	35.2	0	15-146		%Rec	1	6/21/2016 9:51:22 PM	25832
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	0.45	0.096	1.0	J	µg/L	1	6/22/2016 2:13:00 PM	R35079
Toluene	ND	0.12	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
Ethylbenzene	0.26	0.11	1.0	J	µg/L	1	6/22/2016 2:13:00 PM	R35079
Methyl tert-butyl ether (MTBE)	0.58	0.21	1.0	J	µg/L	1	6/22/2016 2:13:00 PM	R35079
1,2,4-Trimethylbenzene	0.59	0.11	1.0	J	µg/L	1	6/22/2016 2:13:00 PM	R35079
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
Naphthalene	1.2	0.093	2.0	J	µg/L	1	6/22/2016 2:13:00 PM	R35079
1-Methylnaphthalene	1.5	0.20	4.0	J	µg/L	1	6/22/2016 2:13:00 PM	R35079
2-Methylnaphthalene	0.50	0.16	4.0	J	µg/L	1	6/22/2016 2:13:00 PM	R35079
Acetone	ND	4.9	10		µg/L	1	6/22/2016 2:13:00 PM	R35079
Bromobenzene	ND	0.098	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
Bromoform	ND	0.10	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
Bromomethane	ND	0.78	3.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
2-Butanone	ND	0.74	10		µg/L	1	6/22/2016 2:13:00 PM	R35079
Carbon disulfide	ND	0.60	10		µg/L	1	6/22/2016 2:13:00 PM	R35079
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
Chloroethane	ND	0.19	2.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
Chloroform	ND	0.089	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
Chloromethane	ND	0.21	3.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-34
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016 2:00:00 PM
Lab ID: 1606613-002
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
Dibromomethane	ND	0.12	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
1,1-Dichloroethane	0.24	0.11	1.0	J	µg/L	1	6/22/2016 2:13:00 PM	R35079
1,1-Dichloroethene	0.78	0.11	1.0	J	µg/L	1	6/22/2016 2:13:00 PM	R35079
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
2-Hexanone	ND	0.84	10		µg/L	1	6/22/2016 2:13:00 PM	R35079
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/22/2016 2:13:00 PM	R35079
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
Styrene	ND	0.11	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
Trichloroethene (TCE)	2.0	0.18	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/22/2016 2:13:00 PM	R35079
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/22/2016 2:13:00 PM	R35079
Surr: 1,2-Dichloroethane-d4	91.6	0	70-130		%Rec	1	6/22/2016 2:13:00 PM	R35079

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-34
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016 2:00:00 PM
Lab ID: 1606613-002
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	1	6/22/2016 2:13:00 PM	R35079
Surr: Dibromofluoromethane	95.2	0	70-130		%Rec	1	6/22/2016 2:13:00 PM	R35079
Surr: Toluene-d8	96.4	0	70-130		%Rec	1	6/22/2016 2:13:00 PM	R35079

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-18
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016 2:50:00 PM
Lab ID: 1606613-003
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	1.9	0.69	1.0		mg/L	1	6/13/2016 12:11:05 PM	25801
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 12:11:05 PM	25801
Surr: DNOP	115	0	70-141		%Rec	1	6/13/2016 12:11:05 PM	25801
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.71	0.025	0.050		mg/L	1	6/15/2016 1:45:45 AM	C34893
Surr: BFB	150	0	66.4-120	S	%Rec	1	6/15/2016 1:45:45 AM	C34893
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.63	0.023	0.10		mg/L	1	6/14/2016 3:54:20 PM	R34930
Chloride	180	0.55	10		mg/L	20	6/14/2016 4:06:45 PM	R34930
Bromide	0.13	0.032	0.10		mg/L	1	6/14/2016 3:54:20 PM	R34930
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/14/2016 3:54:20 PM	R34930
Sulfate	0.21	0.064	0.50	J	mg/L	1	6/14/2016 3:54:20 PM	R34930
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/15/2016 2:02:25 AM	A34930
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	1.9	0.0066	0.010		mg/L	5	6/15/2016 6:08:40 PM	D34920
Cadmium	ND	0.00075	0.0020		mg/L	1	6/15/2016 6:06:59 PM	D34920
Calcium	80	0.26	1.0		mg/L	1	6/15/2016 6:06:59 PM	D34920
Chromium	ND	0.0018	0.0060		mg/L	1	6/15/2016 6:06:59 PM	D34920
Copper	ND	0.0040	0.0060		mg/L	1	6/15/2016 6:06:59 PM	D34920
Iron	1.5	0.045	0.10	*	mg/L	5	6/15/2016 6:08:40 PM	D34920
Magnesium	21	0.013	1.0		mg/L	1	6/15/2016 6:06:59 PM	D34920
Manganese	1.9	0.0016	0.010	*	mg/L	5	6/15/2016 6:08:40 PM	D34920
Potassium	0.64	0.18	1.0	J	mg/L	1	6/15/2016 6:06:59 PM	D34920
Silver	ND	0.0028	0.0050		mg/L	1	6/15/2016 6:06:59 PM	D34920
Sodium	280	0.48	5.0		mg/L	5	6/15/2016 6:08:40 PM	D34920
Zinc	ND	0.0028	0.010		mg/L	1	6/15/2016 6:06:59 PM	D34920
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	1.9	0.0053	0.010		mg/L	5	6/28/2016 1:24:18 PM	25969
Cadmium	ND	0.00062	0.0020		mg/L	1	6/28/2016 1:22:35 PM	25969
Chromium	ND	0.0022	0.0060		mg/L	1	6/28/2016 1:22:35 PM	25969
Copper	ND	0.0051	0.0060		mg/L	1	6/28/2016 1:22:35 PM	25969
Iron	2.5	0.036	0.10	*	mg/L	5	6/28/2016 1:24:18 PM	25969
Manganese	1.9	0.0076	0.010	*	mg/L	5	6/28/2016 1:24:18 PM	25969
Silver	ND	0.0021	0.0050		mg/L	1	6/28/2016 1:22:35 PM	25969
Zinc	ND	0.0039	0.010		mg/L	1	6/28/2016 1:22:35 PM	25969
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0026	0.00014	0.0010		mg/L	1	7/6/2016 8:06:00 PM	B35457

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-18
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016 2:50:00 PM
Lab ID: 1606613-003
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00017	0.00050		mg/L	1	7/6/2016 8:06:00 PM	B35457
Selenium	0.0054	0.00021	0.0010		mg/L	1	7/6/2016 8:06:00 PM	B35457
Uranium	0.0011	0.000051	0.00050		mg/L	1	7/6/2016 8:06:00 PM	B35457
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0027	0.00029	0.0010		mg/L	1	6/28/2016 7:21:21 PM	25969
Lead	0.0013	0.000047	0.00050		mg/L	1	6/28/2016 7:21:21 PM	25969
Selenium	0.0057	0.0012	0.010	J	mg/L	10	6/29/2016 10:51:46 AM	25969
Uranium	0.0012	0.0000049	0.00050		mg/L	1	6/28/2016 7:21:21 PM	25969
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	6/28/2016 2:18:10 PM	26107
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	5.5	2.6	10	J	µg/L	1	6/21/2016 10:19:51 PM	25832
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Aniline	ND	2.4	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 10:19:51 PM	25832
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Bis(2-ethylhexyl)phthalate	ND	2.6	10		µg/L	1	6/21/2016 10:19:51 PM	25832
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Carbazole	ND	2.3	10		µg/L	1	6/21/2016 10:19:51 PM	25832
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 10:19:51 PM	25832
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 10:19:51 PM	25832
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 10:19:51 PM	25832
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 10:19:51 PM	25832
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Di-n-octyl phthalate	4.9	2.0	10	J	µg/L	1	6/21/2016 10:19:51 PM	25832

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-18
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016 2:50:00 PM
Lab ID: 1606613-003
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 10:19:51 PM	25832
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 10:19:51 PM	25832
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 10:19:51 PM	25832
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 10:19:51 PM	25832
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 10:19:51 PM	25832
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 10:19:51 PM	25832
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/21/2016 10:19:51 PM	25832
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 10:19:51 PM	25832
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 10:19:51 PM	25832
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 10:19:51 PM	25832
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Fluorene	4.1	2.7	10	J	µg/L	1	6/21/2016 10:19:51 PM	25832
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 10:19:51 PM	25832
1-Methylnaphthalene	54	2.9	10		µg/L	1	6/21/2016 10:19:51 PM	25832
2-Methylnaphthalene	14	2.9	10		µg/L	1	6/21/2016 10:19:51 PM	25832
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 10:19:51 PM	25832
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/21/2016 10:19:51 PM	25832
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 10:19:51 PM	25832
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 10:19:51 PM	25832
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Naphthalene	13	2.6	10		µg/L	1	6/21/2016 10:19:51 PM	25832
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 10:19:51 PM	25832
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 10:19:51 PM	25832
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 10:19:51 PM	25832
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 10:19:51 PM	25832
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 10:19:51 PM	25832
Phenanthrene	3.7	2.6	10	J	µg/L	1	6/21/2016 10:19:51 PM	25832
Phenol	ND	2.0	10		µg/L	1	6/21/2016 10:19:51 PM	25832

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-18
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016 2:50:00 PM
Lab ID: 1606613-003
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 10:19:51 PM	25832
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 10:19:51 PM	25832
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 10:19:51 PM	25832
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 10:19:51 PM	25832
Surr: 2-Fluorophenol	40.2	0	15-123		%Rec	1	6/21/2016 10:19:51 PM	25832
Surr: Phenol-d5	36.0	0	4.13-124		%Rec	1	6/21/2016 10:19:51 PM	25832
Surr: 2,4,6-Tribromophenol	68.8	0	18.4-134		%Rec	1	6/21/2016 10:19:51 PM	25832
Surr: Nitrobenzene-d5	65.9	0	28.8-134		%Rec	1	6/21/2016 10:19:51 PM	25832
Surr: 2-Fluorobiphenyl	62.2	0	35.9-125		%Rec	1	6/21/2016 10:19:51 PM	25832
Surr: 4-Terphenyl-d14	43.0	0	15-146		%Rec	1	6/21/2016 10:19:51 PM	25832
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	16	0.096	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Toluene	0.48	0.12	1.0	J	µg/L	1	6/22/2016 3:25:00 PM	R35079
Ethylbenzene	21	0.11	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Methyl tert-butyl ether (MTBE)	92	0.21	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
1,2,4-Trimethylbenzene	4.0	0.11	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
1,3,5-Trimethylbenzene	0.40	0.12	1.0	J	µg/L	1	6/22/2016 3:25:00 PM	R35079
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Naphthalene	25	0.093	2.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
1-Methylnaphthalene	82	0.20	4.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
2-Methylnaphthalene	25	0.16	4.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Acetone	9.8	4.9	10	J	µg/L	1	6/22/2016 3:25:00 PM	R35079
Bromobenzene	ND	0.098	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Bromoform	ND	0.10	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Bromomethane	ND	0.78	3.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
2-Butanone	4.4	0.74	10	J	µg/L	1	6/22/2016 3:25:00 PM	R35079
Carbon disulfide	ND	0.60	10		µg/L	1	6/22/2016 3:25:00 PM	R35079
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Chloroethane	ND	0.19	2.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Chloroform	ND	0.089	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Chloromethane	ND	0.21	3.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
cis-1,2-DCE	3.6	0.12	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-18
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016 2:50:00 PM
Lab ID: 1606613-003
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Dibromomethane	ND	0.12	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
1,1-Dichloroethane	0.82	0.11	1.0	J	µg/L	1	6/22/2016 3:25:00 PM	R35079
1,1-Dichloroethene	0.69	0.11	1.0	J	µg/L	1	6/22/2016 3:25:00 PM	R35079
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
2-Hexanone	ND	0.84	10		µg/L	1	6/22/2016 3:25:00 PM	R35079
Isopropylbenzene	3.6	0.10	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
4-Isopropyltoluene	1.1	0.14	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/22/2016 3:25:00 PM	R35079
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
n-Butylbenzene	2.2	0.16	3.0	J	µg/L	1	6/22/2016 3:25:00 PM	R35079
n-Propylbenzene	5.3	0.13	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
sec-Butylbenzene	2.3	0.12	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Styrene	ND	0.11	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
tert-Butylbenzene	0.31	0.12	1.0	J	µg/L	1	6/22/2016 3:25:00 PM	R35079
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/22/2016 3:25:00 PM	R35079
Xylenes, Total	2.5	0.37	1.5		µg/L	1	6/22/2016 3:25:00 PM	R35079
Surr: 1,2-Dichloroethane-d4	90.8	0	70-130		%Rec	1	6/22/2016 3:25:00 PM	R35079

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-18
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016 2:50:00 PM
Lab ID: 1606613-003
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 4-Bromofluorobenzene	104	0	70-130		%Rec	1	6/22/2016 3:25:00 PM	R35079
Surr: Dibromofluoromethane	94.2	0	70-130		%Rec	1	6/22/2016 3:25:00 PM	R35079
Surr: Toluene-d8	97.4	0	70-130		%Rec	1	6/22/2016 3:25:00 PM	R35079

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2nd Qtr GW Sampling
Collection Date:
Lab ID: 1606613-004
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/15/2016 2:09:14 AM	C34893
Surr: BFB	109	0	66.4-120		%Rec	1	6/15/2016 2:09:14 AM	C34893
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Toluene	ND	0.12	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Naphthalene	ND	0.093	2.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Acetone	ND	4.9	10		µg/L	1	6/22/2016 4:13:00 PM	R35079
Bromobenzene	ND	0.098	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Bromoform	ND	0.10	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Bromomethane	ND	0.78	3.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
2-Butanone	ND	0.74	10		µg/L	1	6/22/2016 4:13:00 PM	R35079
Carbon disulfide	ND	0.60	10		µg/L	1	6/22/2016 4:13:00 PM	R35079
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Chloroethane	ND	0.19	2.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Chloroform	ND	0.089	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Chloromethane	ND	0.21	3.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Dibromomethane	ND	0.12	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2nd Qtr GW Sampling
Collection Date:
Lab ID: 1606613-004
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
2-Hexanone	ND	0.84	10		µg/L	1	6/22/2016 4:13:00 PM	R35079
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/22/2016 4:13:00 PM	R35079
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Styrene	ND	0.11	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/22/2016 4:13:00 PM	R35079
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/22/2016 4:13:00 PM	R35079
Surr: 1,2-Dichloroethane-d4	89.8	0	70-130		%Rec	1	6/22/2016 4:13:00 PM	R35079
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	6/22/2016 4:13:00 PM	R35079
Surr: Dibromofluoromethane	94.1	0	70-130		%Rec	1	6/22/2016 4:13:00 PM	R35079
Surr: Toluene-d8	94.0	0	70-130		%Rec	1	6/22/2016 4:13:00 PM	R35079

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-19
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016 12:45:00 PM
Lab ID: 1606613-005
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	7.2	0.69	1.0		mg/L	1	6/13/2016 12:32:50 PM	25801
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 12:32:50 PM	25801
Surr: DNOP	117	0	70-141		%Rec	1	6/13/2016 12:32:50 PM	25801
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	21	0.51	1.0		mg/L	20	6/15/2016 2:32:38 AM	C34893
Surr: BFB	122	0	66.4-120	S	%Rec	20	6/15/2016 2:32:38 AM	C34893
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.17	0.023	0.10		mg/L	1	6/14/2016 4:19:09 PM	R34930
Chloride	150	0.55	10		mg/L	20	6/14/2016 4:31:34 PM	R34930
Bromide	0.30	0.032	0.10		mg/L	1	6/14/2016 4:19:09 PM	R34930
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/14/2016 4:19:09 PM	R34930
Sulfate	0.28	0.064	0.50	J	mg/L	1	6/14/2016 4:19:09 PM	R34930
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/15/2016 2:14:50 AM	A34930
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	1.6	0.0066	0.010		mg/L	5	6/15/2016 6:12:16 PM	D34920
Cadmium	ND	0.00075	0.0020		mg/L	1	6/15/2016 6:10:35 PM	D34920
Calcium	160	1.3	5.0		mg/L	5	6/15/2016 6:12:16 PM	D34920
Chromium	ND	0.0018	0.0060		mg/L	1	6/15/2016 6:10:35 PM	D34920
Copper	ND	0.0040	0.0060		mg/L	1	6/15/2016 6:10:35 PM	D34920
Iron	9.7	0.091	0.20	*	mg/L	10	6/17/2016 2:54:15 PM	A34992
Magnesium	32	0.013	1.0		mg/L	1	6/15/2016 6:10:35 PM	D34920
Manganese	2.7	0.0016	0.010	*	mg/L	5	6/15/2016 6:12:16 PM	D34920
Potassium	0.95	0.18	1.0	J	mg/L	1	6/15/2016 6:10:35 PM	D34920
Silver	ND	0.0028	0.0050		mg/L	1	6/15/2016 6:10:35 PM	D34920
Sodium	300	0.48	5.0		mg/L	5	6/15/2016 6:12:16 PM	D34920
Zinc	0.0062	0.0028	0.010	J	mg/L	1	6/15/2016 6:10:35 PM	D34920
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	2.6	0.0053	0.010	*	mg/L	5	6/28/2016 1:29:53 PM	25969
Cadmium	ND	0.00062	0.0020		mg/L	1	6/28/2016 1:28:06 PM	25969
Chromium	0.0082	0.0022	0.0060		mg/L	1	6/28/2016 1:28:06 PM	25969
Copper	0.012	0.0051	0.0060		mg/L	1	6/28/2016 1:28:06 PM	25969
Iron	19	0.36	1.0	*	mg/L	50	6/28/2016 1:31:39 PM	25969
Manganese	3.3	0.0076	0.010	*	mg/L	5	6/28/2016 1:29:53 PM	25969
Silver	ND	0.0021	0.0050		mg/L	1	6/28/2016 1:28:06 PM	25969
Zinc	0.077	0.0039	0.010		mg/L	1	6/28/2016 1:28:06 PM	25969
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.015	0.00069	0.0050	*	mg/L	5	7/6/2016 8:18:16 PM	B35457

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.0022	0.00084	0.0025	J	mg/L	5	7/6/2016 8:18:16 PM	B35457
Selenium	0.013	0.0042	0.020	J	mg/L	20	7/6/2016 8:21:20 PM	B35457
Uranium	0.00045	0.00026	0.0025	J	mg/L	5	7/6/2016 8:18:16 PM	B35457
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.016	0.0015	0.0050	*	mg/L	5	6/29/2016 10:54:47 AM	25969
Lead	0.038	0.00024	0.0025	*	mg/L	5	6/29/2016 10:54:47 AM	25969
Selenium	0.011	0.0025	0.020	J	mg/L	20	6/29/2016 10:57:48 AM	25969
Uranium	0.0079	0.0000049	0.00050		mg/L	1	6/28/2016 7:24:21 PM	25969
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	6/28/2016 2:20:14 PM	26107
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	5.8	2.6	10	J	µg/L	1	6/21/2016 10:48:28 PM	25832
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Aniline	ND	2.4	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 10:48:28 PM	25832
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Bis(2-ethylhexyl)phthalate	3.5	2.6	10	J	µg/L	1	6/21/2016 10:48:28 PM	25832
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Carbazole	7.2	2.3	10	J	µg/L	1	6/21/2016 10:48:28 PM	25832
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 10:48:28 PM	25832
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 10:48:28 PM	25832
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 10:48:28 PM	25832
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 10:48:28 PM	25832
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Di-n-octyl phthalate	5.1	2.0	10	J	µg/L	1	6/21/2016 10:48:28 PM	25832

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 10:48:28 PM	25832
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 10:48:28 PM	25832
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 10:48:28 PM	25832
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 10:48:28 PM	25832
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 10:48:28 PM	25832
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 10:48:28 PM	25832
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/21/2016 10:48:28 PM	25832
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 10:48:28 PM	25832
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 10:48:28 PM	25832
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 10:48:28 PM	25832
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Fluorene	4.4	2.7	10	J	µg/L	1	6/21/2016 10:48:28 PM	25832
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 10:48:28 PM	25832
1-Methylnaphthalene	120	2.9	10		µg/L	1	6/21/2016 10:48:28 PM	25832
2-Methylnaphthalene	160	2.9	10		µg/L	1	6/21/2016 10:48:28 PM	25832
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 10:48:28 PM	25832
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/21/2016 10:48:28 PM	25832
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 10:48:28 PM	25832
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 10:48:28 PM	25832
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Naphthalene	240	5.2	20		µg/L	2	6/29/2016 10:32:14 AM	25832
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 10:48:28 PM	25832
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 10:48:28 PM	25832
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 10:48:28 PM	25832
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 10:48:28 PM	25832
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 10:48:28 PM	25832
Phenanthrene	4.6	2.6	10	J	µg/L	1	6/21/2016 10:48:28 PM	25832
Phenol	7.0	2.0	10	J	µg/L	1	6/21/2016 10:48:28 PM	25832

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EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 10:48:28 PM	25832
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 10:48:28 PM	25832
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 10:48:28 PM	25832
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 10:48:28 PM	25832
Surr: 2-Fluorophenol	31.1	0	15-123		%Rec	1	6/21/2016 10:48:28 PM	25832
Surr: Phenol-d5	38.2	0	4.13-124		%Rec	1	6/21/2016 10:48:28 PM	25832
Surr: 2,4,6-Tribromophenol	62.5	0	18.4-134		%Rec	1	6/21/2016 10:48:28 PM	25832
Surr: Nitrobenzene-d5	67.2	0	28.8-134		%Rec	1	6/21/2016 10:48:28 PM	25832
Surr: 2-Fluorobiphenyl	63.3	0	35.9-125		%Rec	1	6/21/2016 10:48:28 PM	25832
Surr: 4-Terphenyl-d14	32.2	0	15-146		%Rec	1	6/21/2016 10:48:28 PM	25832
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	1500	9.6	100		µg/L	100	6/22/2016 4:38:00 PM	R35079
Toluene	6.4	1.2	10	J	µg/L	10	6/22/2016 5:02:00 PM	R35079
Ethylbenzene	690	1.1	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
Methyl tert-butyl ether (MTBE)	7900	21	100		µg/L	100	6/22/2016 4:38:00 PM	R35079
1,2,4-Trimethylbenzene	580	1.1	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
1,3,5-Trimethylbenzene	79	1.2	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
1,2-Dichloroethane (EDC)	ND	1.2	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
Naphthalene	410	0.93	20		µg/L	10	6/22/2016 5:02:00 PM	R35079
1-Methylnaphthalene	150	2.0	40		µg/L	10	6/22/2016 5:02:00 PM	R35079
2-Methylnaphthalene	210	1.6	40		µg/L	10	6/22/2016 5:02:00 PM	R35079
Acetone	ND	49	100		µg/L	10	6/22/2016 5:02:00 PM	R35079
Bromobenzene	ND	0.98	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
Bromodichloromethane	ND	1.4	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
Bromoform	ND	1.0	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
Bromomethane	ND	7.8	30		µg/L	10	6/22/2016 5:02:00 PM	R35079
2-Butanone	ND	7.4	100		µg/L	10	6/22/2016 5:02:00 PM	R35079
Carbon disulfide	ND	6.0	100		µg/L	10	6/22/2016 5:02:00 PM	R35079
Carbon Tetrachloride	ND	1.1	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
Chlorobenzene	ND	1.1	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
Chloroethane	ND	1.9	20		µg/L	10	6/22/2016 5:02:00 PM	R35079
Chloroform	ND	0.89	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
Chloromethane	ND	2.1	30		µg/L	10	6/22/2016 5:02:00 PM	R35079
2-Chlorotoluene	ND	4.0	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
4-Chlorotoluene	ND	1.3	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
cis-1,2-DCE	ND	1.2	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	6/22/2016 5:02:00 PM	R35079

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EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	6/22/2016 5:02:00 PM	R35079
Dibromochloromethane	ND	0.87	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
Dibromomethane	ND	1.2	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
1,1-Dichloroethane	ND	1.1	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
1,1-Dichloroethene	ND	1.1	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
1,2-Dichloropropane	ND	1.1	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
1,3-Dichloropropane	ND	1.6	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
2,2-Dichloropropane	ND	1.7	20		µg/L	10	6/22/2016 5:02:00 PM	R35079
1,1-Dichloropropene	ND	1.3	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
Hexachlorobutadiene	ND	2.0	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
2-Hexanone	ND	8.4	100		µg/L	10	6/22/2016 5:02:00 PM	R35079
Isopropylbenzene	34	1.0	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
4-Isopropyltoluene	5.4	1.4	10	J	µg/L	10	6/22/2016 5:02:00 PM	R35079
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	6/22/2016 5:02:00 PM	R35079
Methylene Chloride	ND	1.9	30		µg/L	10	6/22/2016 5:02:00 PM	R35079
n-Butylbenzene	17	1.6	30	J	µg/L	10	6/22/2016 5:02:00 PM	R35079
n-Propylbenzene	90	1.3	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
sec-Butylbenzene	6.5	1.2	10	J	µg/L	10	6/22/2016 5:02:00 PM	R35079
Styrene	ND	1.1	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
tert-Butylbenzene	ND	1.2	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	6/22/2016 5:02:00 PM	R35079
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
trans-1,2-DCE	ND	4.0	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
1,1,1-Trichloroethane	ND	0.91	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
Trichlorofluoromethane	ND	2.0	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	6/22/2016 5:02:00 PM	R35079
Vinyl chloride	ND	2.0	10		µg/L	10	6/22/2016 5:02:00 PM	R35079
Xylenes, Total	660	3.7	15		µg/L	10	6/22/2016 5:02:00 PM	R35079
Surr: 1,2-Dichloroethane-d4	90.9	0	70-130		%Rec	10	6/22/2016 5:02:00 PM	R35079

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-19
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016 12:45:00 PM
Lab ID: 1606613-005
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 4-Bromofluorobenzene	99.1	0	70-130		%Rec	10	6/22/2016 5:02:00 PM	R35079
Surr: Dibromofluoromethane	95.8	0	70-130		%Rec	10	6/22/2016 5:02:00 PM	R35079
Surr: Toluene-d8	94.9	0	70-130		%Rec	10	6/22/2016 5:02:00 PM	R35079

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2nd Qtr GW Sampling
Collection Date:
Lab ID: 1606613-006
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/15/2016 2:56:02 AM	C34893
Surr: BFB	109	0	66.4-120		%Rec	1	6/15/2016 2:56:02 AM	C34893
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Toluene	ND	0.12	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Naphthalene	0.27	0.093	2.0	J	µg/L	1	6/22/2016 5:50:00 PM	R35079
1-Methylnaphthalene	0.38	0.20	4.0	J	µg/L	1	6/22/2016 5:50:00 PM	R35079
2-Methylnaphthalene	0.45	0.16	4.0	J	µg/L	1	6/22/2016 5:50:00 PM	R35079
Acetone	ND	4.9	10		µg/L	1	6/22/2016 5:50:00 PM	R35079
Bromobenzene	ND	0.098	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Bromoform	ND	0.10	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Bromomethane	ND	0.78	3.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
2-Butanone	ND	0.74	10		µg/L	1	6/22/2016 5:50:00 PM	R35079
Carbon disulfide	ND	0.60	10		µg/L	1	6/22/2016 5:50:00 PM	R35079
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Chloroethane	ND	0.19	2.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Chloroform	ND	0.089	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Chloromethane	ND	0.21	3.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Dibromomethane	ND	0.12	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2nd Qtr GW Sampling
Collection Date:
Lab ID: 1606613-006
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
2-Hexanone	ND	0.84	10		µg/L	1	6/22/2016 5:50:00 PM	R35079
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/22/2016 5:50:00 PM	R35079
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Styrene	ND	0.11	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/22/2016 5:50:00 PM	R35079
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/22/2016 5:50:00 PM	R35079
Surr: 1,2-Dichloroethane-d4	88.5	0	70-130		%Rec	1	6/22/2016 5:50:00 PM	R35079
Surr: 4-Bromofluorobenzene	107	0	70-130		%Rec	1	6/22/2016 5:50:00 PM	R35079
Surr: Dibromofluoromethane	94.2	0	70-130		%Rec	1	6/22/2016 5:50:00 PM	R35079
Surr: Toluene-d8	97.0	0	70-130		%Rec	1	6/22/2016 5:50:00 PM	R35079

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-35
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016 3:45:00 PM
Lab ID: 1606613-007
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	6/15/2016 3:15:11 PM	25857
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/13/2016 12:54:33 PM	25801
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 12:54:33 PM	25801
Surr: DNOP	121	0	70-141		%Rec	1	6/13/2016 12:54:33 PM	25801
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	1.4	0.025	0.050		mg/L	1	6/15/2016 3:19:31 AM	C34893
Surr: BFB	136	0	66.4-120	S	%Rec	1	6/15/2016 3:19:31 AM	C34893
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.79	0.023	0.10		mg/L	1	6/14/2016 4:43:58 PM	R34930
Chloride	51	0.55	10		mg/L	20	6/14/2016 4:56:23 PM	R34930
Bromide	0.22	0.032	0.10		mg/L	1	6/14/2016 4:43:58 PM	R34930
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/14/2016 4:43:58 PM	R34930
Sulfate	210	1.3	10		mg/L	20	6/14/2016 4:56:23 PM	R34930
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/15/2016 2:27:15 AM	A34930
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.37	0.0013	0.0020		mg/L	1	6/15/2016 6:14:03 PM	D34920
Cadmium	ND	0.00075	0.0020		mg/L	1	6/15/2016 6:14:03 PM	D34920
Calcium	120	1.3	5.0		mg/L	5	6/15/2016 6:15:43 PM	D34920
Chromium	ND	0.0018	0.0060		mg/L	1	6/15/2016 6:14:03 PM	D34920
Copper	ND	0.0040	0.0060		mg/L	1	6/15/2016 6:14:03 PM	D34920
Iron	2.5	0.045	0.10	*	mg/L	5	6/15/2016 6:15:43 PM	D34920
Magnesium	34	0.013	1.0		mg/L	1	6/15/2016 6:14:03 PM	D34920
Manganese	2.7	0.0016	0.010	*	mg/L	5	6/15/2016 6:15:43 PM	D34920
Potassium	0.47	0.18	1.0	J	mg/L	1	6/15/2016 6:14:03 PM	D34920
Silver	ND	0.0028	0.0050		mg/L	1	6/15/2016 6:14:03 PM	D34920
Sodium	150	0.48	5.0		mg/L	5	6/15/2016 6:15:43 PM	D34920
Zinc	ND	0.0028	0.010		mg/L	1	6/15/2016 6:14:03 PM	D34920
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.89	0.0011	0.0020		mg/L	1	6/28/2016 1:39:02 PM	25969
Cadmium	ND	0.00062	0.0020		mg/L	1	6/28/2016 1:39:02 PM	25969
Chromium	0.0023	0.0022	0.0060	J	mg/L	1	6/28/2016 1:39:02 PM	25969
Copper	ND	0.0051	0.0060		mg/L	1	6/28/2016 1:39:02 PM	25969
Iron	4.5	0.036	0.10	*	mg/L	5	6/28/2016 1:40:42 PM	25969
Manganese	3.3	0.0076	0.010	*	mg/L	5	6/28/2016 1:40:42 PM	25969
Silver	ND	0.0021	0.0050		mg/L	1	6/28/2016 1:39:02 PM	25969
Zinc	0.0074	0.0039	0.010	J	mg/L	1	6/28/2016 1:39:02 PM	25969

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-35
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016 3:45:00 PM
Lab ID: 1606613-007
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.00061	0.00014	0.0010	J	mg/L	1	7/6/2016 8:24:23 PM	B35457
Lead	ND	0.00017	0.00050		mg/L	1	7/6/2016 8:24:23 PM	B35457
Selenium	0.0023	0.0011	0.0050	J	mg/L	5	7/6/2016 8:27:26 PM	B35457
Uranium	0.0011	0.000051	0.00050		mg/L	1	7/6/2016 8:24:23 PM	B35457
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.00093	0.00029	0.0010	J	mg/L	1	6/28/2016 7:27:22 PM	25969
Lead	0.0049	0.000047	0.00050		mg/L	1	6/28/2016 7:27:22 PM	25969
Selenium	0.0013	0.00062	0.0050	J	mg/L	5	6/29/2016 11:00:48 AM	25969
Uranium	0.0020	0.0000049	0.00050		mg/L	1	6/28/2016 7:27:22 PM	25969
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	6/28/2016 2:22:18 PM	26107
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Aniline	ND	2.4	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 11:16:49 PM	25832
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Bis(2-ethylhexyl)phthalate	3.2	2.6	10	J	µg/L	1	6/21/2016 11:16:49 PM	25832
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Carbazole	ND	2.3	10		µg/L	1	6/21/2016 11:16:49 PM	25832
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 11:16:49 PM	25832
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 11:16:49 PM	25832
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 11:16:49 PM	25832
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 11:16:49 PM	25832
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 11:16:49 PM	25832

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Qualifiers:

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-35
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016 3:45:00 PM
Lab ID: 1606613-007
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Di-n-octyl phthalate	5.9	2.0	10	J	µg/L	1	6/21/2016 11:16:49 PM	25832
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 11:16:49 PM	25832
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 11:16:49 PM	25832
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 11:16:49 PM	25832
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 11:16:49 PM	25832
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 11:16:49 PM	25832
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 11:16:49 PM	25832
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/21/2016 11:16:49 PM	25832
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 11:16:49 PM	25832
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 11:16:49 PM	25832
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 11:16:49 PM	25832
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Fluorene	ND	2.7	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 11:16:49 PM	25832
1-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 11:16:49 PM	25832
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 11:16:49 PM	25832
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 11:16:49 PM	25832
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/21/2016 11:16:49 PM	25832
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 11:16:49 PM	25832
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 11:16:49 PM	25832
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Naphthalene	ND	2.6	10		µg/L	1	6/21/2016 11:16:49 PM	25832
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 11:16:49 PM	25832
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 11:16:49 PM	25832
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 11:16:49 PM	25832
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 11:16:49 PM	25832
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 11:16:49 PM	25832
Phenanthrene	ND	2.6	10		µg/L	1	6/21/2016 11:16:49 PM	25832

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-35
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016 3:45:00 PM
Lab ID: 1606613-007
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Phenol	ND	2.0	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 11:16:49 PM	25832
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 11:16:49 PM	25832
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 11:16:49 PM	25832
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 11:16:49 PM	25832
Surr: 2-Fluorophenol	29.9	0	15-123		%Rec	1	6/21/2016 11:16:49 PM	25832
Surr: Phenol-d5	27.4	0	4.13-124		%Rec	1	6/21/2016 11:16:49 PM	25832
Surr: 2,4,6-Tribromophenol	65.9	0	18.4-134		%Rec	1	6/21/2016 11:16:49 PM	25832
Surr: Nitrobenzene-d5	64.7	0	28.8-134		%Rec	1	6/21/2016 11:16:49 PM	25832
Surr: 2-Fluorobiphenyl	59.0	0	35.9-125		%Rec	1	6/21/2016 11:16:49 PM	25832
Surr: 4-Terphenyl-d14	36.8	0	15-146		%Rec	1	6/21/2016 11:16:49 PM	25832
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	67	0.096	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
Toluene	0.27	0.12	1.0	J	µg/L	1	6/22/2016 6:38:00 PM	R35079
Ethylbenzene	12	0.11	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
Methyl tert-butyl ether (MTBE)	19	0.21	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
1,2,4-Trimethylbenzene	1.2	0.11	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
1,3,5-Trimethylbenzene	0.20	0.12	1.0	J	µg/L	1	6/22/2016 6:38:00 PM	R35079
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
Naphthalene	ND	0.093	2.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
Acetone	6.8	4.9	10	J	µg/L	1	6/22/2016 6:38:00 PM	R35079
Bromobenzene	ND	0.098	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
Bromoform	ND	0.10	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
Bromomethane	ND	0.78	3.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
2-Butanone	2.0	0.74	10	J	µg/L	1	6/22/2016 6:38:00 PM	R35079
Carbon disulfide	ND	0.60	10		µg/L	1	6/22/2016 6:38:00 PM	R35079
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
Chlorobenzene	0.69	0.11	1.0	J	µg/L	1	6/22/2016 6:38:00 PM	R35079
Chloroethane	ND	0.19	2.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
Chloroform	ND	0.089	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
Chloromethane	ND	0.21	3.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-35
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016 3:45:00 PM
Lab ID: 1606613-007
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
Dibromomethane	ND	0.12	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
1,4-Dichlorobenzene	5.6	0.14	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
1,1-Dichloroethane	0.45	0.11	1.0	J	µg/L	1	6/22/2016 6:38:00 PM	R35079
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
2-Hexanone	ND	0.84	10		µg/L	1	6/22/2016 6:38:00 PM	R35079
Isopropylbenzene	1.8	0.10	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
4-Isopropyltoluene	0.41	0.14	1.0	J	µg/L	1	6/22/2016 6:38:00 PM	R35079
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/22/2016 6:38:00 PM	R35079
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
n-Butylbenzene	0.53	0.16	3.0	J	µg/L	1	6/22/2016 6:38:00 PM	R35079
n-Propylbenzene	4.5	0.13	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
sec-Butylbenzene	1.9	0.12	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
Styrene	ND	0.11	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
tert-Butylbenzene	0.19	0.12	1.0	J	µg/L	1	6/22/2016 6:38:00 PM	R35079
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/22/2016 6:38:00 PM	R35079
Xylenes, Total	5.5	0.37	1.5		µg/L	1	6/22/2016 6:38:00 PM	R35079

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-35
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016 3:45:00 PM
Lab ID: 1606613-007
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 1,2-Dichloroethane-d4	90.7	0	70-130		%Rec	1	6/22/2016 6:38:00 PM	R35079
Surr: 4-Bromofluorobenzene	98.7	0	70-130		%Rec	1	6/22/2016 6:38:00 PM	R35079
Surr: Dibromofluoromethane	97.0	0	70-130		%Rec	1	6/22/2016 6:38:00 PM	R35079
Surr: Toluene-d8	98.9	0	70-130		%Rec	1	6/22/2016 6:38:00 PM	R35079

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2nd Qtr GW Sampling
Collection Date:
Lab ID: 1606613-008
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/15/2016 3:43:00 AM	C34893
Surr: BFB	109	0	66.4-120		%Rec	1	6/15/2016 3:43:00 AM	C34893
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Toluene	ND	0.12	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Naphthalene	ND	0.093	2.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Acetone	ND	4.9	10		µg/L	1	6/22/2016 7:25:00 PM	R35079
Bromobenzene	ND	0.098	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Bromoform	ND	0.10	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Bromomethane	ND	0.78	3.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
2-Butanone	ND	0.74	10		µg/L	1	6/22/2016 7:25:00 PM	R35079
Carbon disulfide	ND	0.60	10		µg/L	1	6/22/2016 7:25:00 PM	R35079
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Chloroethane	ND	0.19	2.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Chloroform	ND	0.089	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Chloromethane	ND	0.21	3.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Dibromomethane	ND	0.12	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2nd Qtr GW Sampling
Collection Date:
Lab ID: 1606613-008
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
2-Hexanone	ND	0.84	10		µg/L	1	6/22/2016 7:25:00 PM	R35079
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/22/2016 7:25:00 PM	R35079
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Styrene	ND	0.11	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/22/2016 7:25:00 PM	R35079
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/22/2016 7:25:00 PM	R35079
Surr: 1,2-Dichloroethane-d4	82.1	0	70-130		%Rec	1	6/22/2016 7:25:00 PM	R35079
Surr: 4-Bromofluorobenzene	107	0	70-130		%Rec	1	6/22/2016 7:25:00 PM	R35079
Surr: Dibromofluoromethane	94.5	0	70-130		%Rec	1	6/22/2016 7:25:00 PM	R35079
Surr: Toluene-d8	102	0	70-130		%Rec	1	6/22/2016 7:25:00 PM	R35079

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-DUP03
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016
Lab ID: 1606613-009
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	6/15/2016 3:30:32 PM	25857
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/13/2016 1:16:32 PM	25801
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 1:16:32 PM	25801
Surr: DNOP	120	0	70-141		%Rec	1	6/13/2016 1:16:32 PM	25801
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	1.5	0.025	0.050		mg/L	1	6/15/2016 4:06:24 AM	C34893
Surr: BFB	135	0	66.4-120	S	%Rec	1	6/15/2016 4:06:24 AM	C34893
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.82	0.023	0.10		mg/L	1	6/14/2016 5:08:48 PM	R34930
Chloride	52	0.55	10		mg/L	20	6/14/2016 5:21:13 PM	R34930
Bromide	0.23	0.032	0.10		mg/L	1	6/14/2016 5:08:48 PM	R34930
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/14/2016 5:08:48 PM	R34930
Sulfate	200	1.3	10		mg/L	20	6/14/2016 5:21:13 PM	R34930
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/16/2016 4:12:00 AM	A34957
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.37	0.0013	0.0020		mg/L	1	6/15/2016 6:17:41 PM	D34920
Cadmium	ND	0.00075	0.0020		mg/L	1	6/15/2016 6:17:41 PM	D34920
Calcium	120	1.3	5.0		mg/L	5	6/15/2016 6:19:20 PM	D34920
Chromium	ND	0.0018	0.0060		mg/L	1	6/15/2016 6:17:41 PM	D34920
Copper	ND	0.0040	0.0060		mg/L	1	6/15/2016 6:17:41 PM	D34920
Iron	2.4	0.045	0.10	*	mg/L	5	6/15/2016 6:19:20 PM	D34920
Magnesium	34	0.013	1.0		mg/L	1	6/15/2016 6:17:41 PM	D34920
Manganese	2.7	0.0016	0.010	*	mg/L	5	6/15/2016 6:19:20 PM	D34920
Potassium	0.43	0.18	1.0	J	mg/L	1	6/15/2016 6:17:41 PM	D34920
Silver	ND	0.0028	0.0050		mg/L	1	6/15/2016 6:17:41 PM	D34920
Sodium	150	0.48	5.0		mg/L	5	6/15/2016 6:19:20 PM	D34920
Zinc	ND	0.0028	0.010		mg/L	1	6/15/2016 6:17:41 PM	D34920
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	1.1	0.0053	0.010		mg/L	5	6/28/2016 1:46:17 PM	25969
Cadmium	ND	0.00062	0.0020		mg/L	1	6/28/2016 1:44:38 PM	25969
Chromium	ND	0.0022	0.0060		mg/L	1	6/28/2016 1:44:38 PM	25969
Copper	ND	0.0051	0.0060		mg/L	1	6/28/2016 1:44:38 PM	25969
Iron	4.8	0.036	0.10	*	mg/L	5	6/28/2016 1:46:17 PM	25969
Manganese	3.4	0.0076	0.010	*	mg/L	5	6/28/2016 1:46:17 PM	25969
Silver	ND	0.0021	0.0050		mg/L	1	6/28/2016 1:44:38 PM	25969
Zinc	0.0084	0.0039	0.010	J	mg/L	1	6/28/2016 1:44:38 PM	25969

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-DUP03
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016
Lab ID: 1606613-009
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.00060	0.00014	0.0010	J	mg/L	1	7/6/2016 8:30:29 PM	B35457
Lead	ND	0.00017	0.00050		mg/L	1	7/6/2016 8:30:29 PM	B35457
Selenium	0.0025	0.0011	0.0050	J	mg/L	5	7/6/2016 8:33:33 PM	B35457
Uranium	0.0011	0.000051	0.00050		mg/L	1	7/6/2016 8:30:29 PM	B35457
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0010	0.00029	0.0010	J	mg/L	1	6/28/2016 7:30:23 PM	25969
Lead	0.0052	0.000047	0.00050		mg/L	1	6/28/2016 7:30:23 PM	25969
Selenium	0.0016	0.00062	0.0050	J	mg/L	5	6/29/2016 11:03:49 AM	25969
Uranium	0.0019	0.0000049	0.00050		mg/L	1	6/28/2016 7:30:23 PM	25969
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	6/28/2016 2:24:23 PM	26107
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Acenaphthylene	ND	2.4	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Aniline	ND	2.4	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Anthracene	ND	2.5	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Azobenzene	ND	2.7	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Benzoic acid	ND	2.6	20		µg/L	1	6/22/2016 11:04:04 AM	25832
Benzyl alcohol	ND	3.0	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Bis(2-ethylhexyl)phthalate	3.2	2.6	10	J	µg/L	1	6/22/2016 11:04:04 AM	25832
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Carbazole	ND	2.3	10		µg/L	1	6/22/2016 11:04:04 AM	25832
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/22/2016 11:04:04 AM	25832
4-Chloroaniline	ND	2.7	10		µg/L	1	6/22/2016 11:04:04 AM	25832
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/22/2016 11:04:04 AM	25832
2-Chlorophenol	ND	2.2	10		µg/L	1	6/22/2016 11:04:04 AM	25832
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Chrysene	ND	2.8	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/22/2016 11:04:04 AM	25832

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-DUP03
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016
Lab ID: 1606613-009
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Di-n-octyl phthalate	5.1	2.0	10	J	µg/L	1	6/22/2016 11:04:04 AM	25832
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Dibenzofuran	ND	2.5	10		µg/L	1	6/22/2016 11:04:04 AM	25832
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/22/2016 11:04:04 AM	25832
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/22/2016 11:04:04 AM	25832
1,4-Dichlorobenzene	3.8	2.4	10	J	µg/L	1	6/22/2016 11:04:04 AM	25832
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Diethyl phthalate	ND	2.7	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Dimethyl phthalate	3.8	2.4	10	J	µg/L	1	6/22/2016 11:04:04 AM	25832
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/22/2016 11:04:04 AM	25832
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/22/2016 11:04:04 AM	25832
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/22/2016 11:04:04 AM	25832
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/22/2016 11:04:04 AM	25832
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/22/2016 11:04:04 AM	25832
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Fluoranthene	ND	2.6	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Fluorene	ND	2.7	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Hexachloroethane	ND	2.4	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Isophorone	ND	2.6	10		µg/L	1	6/22/2016 11:04:04 AM	25832
1-Methylnaphthalene	ND	2.9	10		µg/L	1	6/22/2016 11:04:04 AM	25832
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/22/2016 11:04:04 AM	25832
2-Methylphenol	ND	2.5	10		µg/L	1	6/22/2016 11:04:04 AM	25832
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/22/2016 11:04:04 AM	25832
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/22/2016 11:04:04 AM	25832
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/22/2016 11:04:04 AM	25832
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Naphthalene	ND	2.6	10		µg/L	1	6/22/2016 11:04:04 AM	25832
2-Nitroaniline	ND	2.8	10		µg/L	1	6/22/2016 11:04:04 AM	25832
3-Nitroaniline	ND	2.9	10		µg/L	1	6/22/2016 11:04:04 AM	25832
4-Nitroaniline	ND	2.6	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Nitrobenzene	ND	2.8	10		µg/L	1	6/22/2016 11:04:04 AM	25832
2-Nitrophenol	ND	2.4	10		µg/L	1	6/22/2016 11:04:04 AM	25832
4-Nitrophenol	ND	2.6	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Pentachlorophenol	ND	2.3	20		µg/L	1	6/22/2016 11:04:04 AM	25832
Phenanthrene	ND	2.6	10		µg/L	1	6/22/2016 11:04:04 AM	25832

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-DUP03
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016
Lab ID: 1606613-009
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Phenol	ND	2.0	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Pyrene	ND	3.1	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Pyridine	ND	2.2	10		µg/L	1	6/22/2016 11:04:04 AM	25832
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/22/2016 11:04:04 AM	25832
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/22/2016 11:04:04 AM	25832
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/22/2016 11:04:04 AM	25832
Surr: 2-Fluorophenol	18.6	0	15-123		%Rec	1	6/22/2016 11:04:04 AM	25832
Surr: Phenol-d5	26.8	0	4.13-124		%Rec	1	6/22/2016 11:04:04 AM	25832
Surr: 2,4,6-Tribromophenol	19.9	0	18.4-134		%Rec	1	6/22/2016 11:04:04 AM	25832
Surr: Nitrobenzene-d5	86.8	0	28.8-134		%Rec	1	6/22/2016 11:04:04 AM	25832
Surr: 2-Fluorobiphenyl	77.4	0	35.9-125		%Rec	1	6/22/2016 11:04:04 AM	25832
Surr: 4-Terphenyl-d14	57.2	0	15-146		%Rec	1	6/22/2016 11:04:04 AM	25832
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	170	0.48	5.0		µg/L	5	6/22/2016 7:49:00 PM	R35079
Toluene	0.54	0.12	1.0	J	µg/L	1	6/22/2016 8:12:00 PM	R35079
Ethylbenzene	18	0.11	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
Methyl tert-butyl ether (MTBE)	23	0.21	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
1,2,4-Trimethylbenzene	2.8	0.11	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
1,3,5-Trimethylbenzene	0.40	0.12	1.0	J	µg/L	1	6/22/2016 8:12:00 PM	R35079
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
Naphthalene	0.89	0.093	2.0	J	µg/L	1	6/22/2016 8:12:00 PM	R35079
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
Acetone	7.6	4.9	10	J	µg/L	1	6/22/2016 8:12:00 PM	R35079
Bromobenzene	ND	0.098	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
Bromoform	ND	0.10	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
Bromomethane	ND	0.78	3.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
2-Butanone	2.8	0.74	10	J	µg/L	1	6/22/2016 8:12:00 PM	R35079
Carbon disulfide	ND	0.60	10		µg/L	1	6/22/2016 8:12:00 PM	R35079
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
Chlorobenzene	0.78	0.11	1.0	J	µg/L	1	6/22/2016 8:12:00 PM	R35079
Chloroethane	ND	0.19	2.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
Chloroform	ND	0.089	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
Chloromethane	ND	0.21	3.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-DUP03
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016
Lab ID: 1606613-009
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
Dibromomethane	ND	0.12	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
1,4-Dichlorobenzene	6.1	0.14	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
1,1-Dichloroethane	0.49	0.11	1.0	J	µg/L	1	6/22/2016 8:12:00 PM	R35079
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
2-Hexanone	ND	0.84	10		µg/L	1	6/22/2016 8:12:00 PM	R35079
Isopropylbenzene	2.2	0.10	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
4-Isopropyltoluene	0.48	0.14	1.0	J	µg/L	1	6/22/2016 8:12:00 PM	R35079
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/22/2016 8:12:00 PM	R35079
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
n-Butylbenzene	0.59	0.16	3.0	J	µg/L	1	6/22/2016 8:12:00 PM	R35079
n-Propylbenzene	5.7	0.13	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
sec-Butylbenzene	2.2	0.12	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
Styrene	ND	0.11	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
tert-Butylbenzene	0.22	0.12	1.0	J	µg/L	1	6/22/2016 8:12:00 PM	R35079
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/22/2016 8:12:00 PM	R35079
Xylenes, Total	13	0.37	1.5		µg/L	1	6/22/2016 8:12:00 PM	R35079

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-DUP03
Project: 2nd Qtr GW Sampling
Collection Date: 6/10/2016
Lab ID: 1606613-009
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 1,2-Dichloroethane-d4	87.4	0	70-130		%Rec	1	6/22/2016 8:12:00 PM	R35079
Surr: 4-Bromofluorobenzene	109	0	70-130		%Rec	1	6/22/2016 8:12:00 PM	R35079
Surr: Dibromofluoromethane	94.0	0	70-130		%Rec	1	6/22/2016 8:12:00 PM	R35079
Surr: Toluene-d8	92.4	0	70-130		%Rec	1	6/22/2016 8:12:00 PM	R35079

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606613**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2nd Qtr GW Sampling

Sample ID **MB-D**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **D34920**	RunNo: **34920**
Prep Date:	Analysis Date: **6/15/2016**	SeqNo: **1079533** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-D**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **D34920**	RunNo: **34920**
Prep Date:	Analysis Date: **6/15/2016**	SeqNo: **1079534** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.2	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Calcium	50	1.0	50.00	0	101	85	115			
Chromium	0.50	0.0060	0.5000	0	99.1	85	115			
Copper	0.50	0.0060	0.5000	0	100	85	115			
Iron	0.49	0.020	0.5000	0	97.4	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	97.3	85	115			
Potassium	48	1.0	50.00	0	96.8	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Sodium	50	1.0	50.00	0	99.3	85	115			
Zinc	0.49	0.010	0.5000	0	98.1	85	115			

Sample ID **LLLCS-D**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **D34920**	RunNo: **34920**
Prep Date:	Analysis Date: **6/15/2016**	SeqNo: **1079535** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0023	0.0020	0.002000	0	116	50	150			
Cadmium	0.0021	0.0020	0.002000	0	107	50	150			
Calcium	0.54	1.0	0.5000	0	109	50	150			J
Chromium	0.0058	0.0060	0.006000	0	97.0	50	150			J

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606613**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2nd Qtr GW Sampling

Sample ID **LLLCS-D**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **D34920**	RunNo: **34920**
Prep Date:	Analysis Date: **6/15/2016**	SeqNo: **1079535** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0062	0.0060	0.006000	0	104	50	150			
Iron	0.021	0.020	0.02000	0	104	50	150			
Magnesium	0.54	1.0	0.5000	0	107	50	150			J
Manganese	0.0021	0.0020	0.002000	0	105	50	150			
Potassium	0.53	1.0	0.5000	0	107	50	150			J
Silver	0.0050	0.0050	0.005000	0	101	50	150			
Sodium	0.55	1.0	0.5000	0	110	50	150			J
Zinc	0.0062	0.010	0.005000	0	125	50	150			J

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A34992**	RunNo: **34992**
Prep Date:	Analysis Date: **6/17/2016**	SeqNo: **1081597** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A34992**	RunNo: **34992**
Prep Date:	Analysis Date: **6/17/2016**	SeqNo: **1081598** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.48	0.020	0.5000	0	95.9	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A34992**	RunNo: **34992**
Prep Date:	Analysis Date: **6/17/2016**	SeqNo: **1081599** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.020	0.020	0.02000	0	97.5	50	150			J

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606613**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2nd Qtr GW Sampling

Sample ID **MB-25969**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **25969**	RunNo: **35085**
Prep Date: **6/21/2016**	Analysis Date: **6/22/2016**	SeqNo: **1085152** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-25969**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **25969**	RunNo: **35085**
Prep Date: **6/21/2016**	Analysis Date: **6/22/2016**	SeqNo: **1085153** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.9	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.2	85	115			
Chromium	0.48	0.0060	0.5000	0	95.7	85	115			
Copper	0.48	0.0060	0.5000	0	95.2	85	115			
Iron	0.47	0.020	0.5000	0	94.8	85	115			
Manganese	0.47	0.0020	0.5000	0	94.1	85	115			
Silver	0.098	0.0050	0.1000	0	98.3	85	115			
Zinc	0.47	0.010	0.5000	0	93.7	85	115			

Sample ID **LLLCS-25969**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **25969**	RunNo: **35085**
Prep Date: **6/21/2016**	Analysis Date: **6/22/2016**	SeqNo: **1085154** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0022	0.0020	0.002000	0	108	50	150			
Cadmium	0.0014	0.0020	0.002000	0	67.5	50	150			J
Chromium	0.0058	0.0060	0.006000	0	96.7	50	150			J
Copper	0.0071	0.0060	0.006000	0	118	50	150			
Iron	0.017	0.020	0.02000	0	86.2	50	150			J
Manganese	0.0021	0.0020	0.002000	0	105	50	150			
Silver	0.0049	0.0050	0.005000	0	98.4	50	150			J
Zinc	0.0049	0.010	0.005000	0	98.8	50	150			J

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606613**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2nd Qtr GW Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B35457**	RunNo: **35457**
Prep Date:	Analysis Date: **7/6/2016**	SeqNo: **1098043** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	93.7	85	115			
Lead	0.012	0.00050	0.01250	0	93.2	85	115			
Selenium	0.024	0.0010	0.02500	0	95.1	85	115			
Uranium	0.012	0.00050	0.01250	0	93.1	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B35457**	RunNo: **35457**
Prep Date:	Analysis Date: **7/6/2016**	SeqNo: **1098045** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00098	0.0010	0.001000	0	97.8	50	150			J
Lead	0.00047	0.00050	0.0005000	0	94.6	50	150			J
Selenium	0.0011	0.0010	0.001000	0	109	50	150			
Uranium	0.00046	0.00050	0.0005000	0	92.3	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B35457**	RunNo: **35457**
Prep Date:	Analysis Date: **7/6/2016**	SeqNo: **1098047** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606613**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2nd Qtr GW Sampling

Sample ID	**MB-25969**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**25969**	RunNo:	**35099**					
Prep Date:	**6/21/2016**	Analysis Date:	**6/22/2016**	SeqNo:	**1085405**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-25969**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**25969**	RunNo:	**35099**					
Prep Date:	**6/21/2016**	Analysis Date:	**6/22/2016**	SeqNo:	**1085406**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.9	85	115			
Lead	0.012	0.00050	0.01250	0	94.7	85	115			
Selenium	0.024	0.0010	0.02500	0	95.4	85	115			
Uranium	0.013	0.00050	0.01250	0	102	85	115			

Sample ID	**MSLLLCS-25969**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**25969**	RunNo:	**35099**					
Prep Date:	**6/21/2016**	Analysis Date:	**6/22/2016**	SeqNo:	**1085407**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	106	50	150			
Lead	0.00048	0.00050	0.0005000	0	96.3	50	150			J
Selenium	0.00096	0.0010	0.001000	0	95.7	50	150			J
Uranium	0.00052	0.00050	0.0005000	0	104	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606613**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2nd Qtr GW Sampling

Sample ID	**MB-26107**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**26107**	RunNo:	**35280**					
Prep Date:	**6/27/2016**	Analysis Date:	**6/28/2016**	SeqNo:	**1091051**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-26107**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**26107**	RunNo:	**35280**					
Prep Date:	**6/27/2016**	Analysis Date:	**6/28/2016**	SeqNo:	**1091052**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.4	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606613**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2nd Qtr GW Sampling

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R34930**	RunNo: **34930**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078891** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	0.14	0.50								J

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R34930**	RunNo: **34930**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078892** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	105	90	110			
Chloride	5.0	0.50	5.000	0	99.4	90	110			
Bromide	2.5	0.10	2.500	0	101	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	101	90	110			
Sulfate	10	0.50	10.00	0	99.9	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A34930**	RunNo: **34930**
Prep Date:	Analysis Date: **6/15/2016**	SeqNo: **1078946** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A34930**	RunNo: **34930**
Prep Date:	Analysis Date: **6/15/2016**	SeqNo: **1078947** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.6	0.20	3.500	0	104	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A34957**	RunNo: **34957**
Prep Date:	Analysis Date: **6/16/2016**	SeqNo: **1080142** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606613**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2nd Qtr GW Sampling

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **A34957**	RunNo: **34957**							
Prep Date:	Analysis Date: **6/16/2016**	SeqNo: **1080143**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	100	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R35229**	RunNo: **35229**							
Prep Date:	Analysis Date: **6/27/2016**	SeqNo: **1089261**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R35229**	RunNo: **35229**							
Prep Date:	Analysis Date: **6/27/2016**	SeqNo: **1089262**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.1	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606613**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2nd Qtr GW Sampling

Sample ID	**MB-25857**	SampType:	**MBLK**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**PBW**	Batch ID:	**25857**	RunNo:	**34956**					
Prep Date:	**6/15/2016**	Analysis Date:	**6/15/2016**	SeqNo:	**1080029**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID	**LCS-25857**	SampType:	**LCS**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**LCSW**	Batch ID:	**25857**	RunNo:	**34956**					
Prep Date:	**6/15/2016**	Analysis Date:	**6/15/2016**	SeqNo:	**1080030**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.090	0.010	0.1000	0	90.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606613**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2nd Qtr GW Sampling

Sample ID **LCS-25801**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **25801**	RunNo: **34862**
Prep Date: **6/13/2016**	Analysis Date: **6/13/2016**	SeqNo: **1076749** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.9	1.0	5.000	0	98.6	71.3	139			
Surr: DNOP	0.50		0.5000		99.6	70	141			

Sample ID **MB-25801**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **25801**	RunNo: **34862**
Prep Date: **6/13/2016**	Analysis Date: **6/13/2016**	SeqNo: **1076750** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		108	70	141			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606613**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2nd Qtr GW Sampling

Sample ID	**5ML RB-II**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBW**	Batch ID:	**C34893**		RunNo:	**34893**					
Prep Date:		Analysis Date:	**6/14/2016**		SeqNo:	**1078066**	Units:	**mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		ND	0.050								
Surr: BFB		21		20.00		107	66.4	120			

Sample ID	**2.5UG GRO LCS-II**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSW**	Batch ID:	**C34893**		RunNo:	**34893**					
Prep Date:		Analysis Date:	**6/14/2016**		SeqNo:	**1078067**	Units:	**mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		0.47	0.050	0.5000	0	93.6	80	120			
Surr: BFB		24		20.00		118	66.4	120			

Sample ID	**5ML RB**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBW**	Batch ID:	**A34934**		RunNo:	**34934**					
Prep Date:		Analysis Date:	**6/15/2016**		SeqNo:	**1079447**	Units:	**mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		ND	0.050								
Surr: BFB		22		20.00		111	66.4	120			

Sample ID	**2.5UG GRO LCS**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSW**	Batch ID:	**A34934**		RunNo:	**34934**					
Prep Date:		Analysis Date:	**6/15/2016**		SeqNo:	**1079448**	Units:	**mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		0.48	0.050	0.5000	0	95.8	80	120			
Surr: BFB		24		20.00		121	66.4	120			S

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606613**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2nd Qtr GW Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R35079**	RunNo: **35079**
Prep Date:	Analysis Date: **6/22/2016**	SeqNo: **1085648** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	70	130			
Toluene	20	1.0	20.00	0	97.8	70	130			
Chlorobenzene	20	1.0	20.00	0	102	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	93.7	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	96.6	70	130			
Surr: 1,2-Dichloroethane-d4	8.6		10.00		86.3	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.7		10.00		97.2	70	130			
Surr: Toluene-d8	9.4		10.00		94.3	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R35079**	RunNo: **35079**
Prep Date:	Analysis Date: **6/22/2016**	SeqNo: **1085649** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606613**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2nd Qtr GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R35079**	RunNo: **35079**
Prep Date:	Analysis Date: **6/22/2016**	SeqNo: **1085649** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606613**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2nd Qtr GW Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R35079**	RunNo: **35079**
Prep Date:	Analysis Date: **6/22/2016**	SeqNo: **1085649** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.5		10.00		85.2	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	9.3		10.00		93.2	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID **1606613-002ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-34**	Batch ID: **R35079**	RunNo: **35079**
Prep Date:	Analysis Date: **6/22/2016**	SeqNo: **1085653** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0.4520	90.9	70	130			
Toluene	19	1.0	20.00	0	95.0	70	130			
Chlorobenzene	19	1.0	20.00	0	96.0	70	130			
1,1-Dichloroethene	20	1.0	20.00	0.7840	97.4	70	130			
Trichloroethene (TCE)	20	1.0	20.00	2.018	90.7	70	130			
Surr: 1,2-Dichloroethane-d4	8.9		10.00		88.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.6	70	130			
Surr: Dibromofluoromethane	9.3		10.00		92.8	70	130			
Surr: Toluene-d8	9.9		10.00		98.7	70	130			

Sample ID **1606613-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-34**	Batch ID: **R35079**	RunNo: **35079**
Prep Date:	Analysis Date: **6/22/2016**	SeqNo: **1085654** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0.4520	91.9	70	130	1.09	20	
Toluene	19	1.0	20.00	0	94.4	70	130	0.591	20	
Chlorobenzene	19	1.0	20.00	0	95.3	70	130	0.784	20	
1,1-Dichloroethene	18	1.0	20.00	0.7840	87.0	70	130	10.9	20	
Trichloroethene (TCE)	20	1.0	20.00	2.018	90.1	70	130	0.587	20	
Surr: 1,2-Dichloroethane-d4	8.9		10.00		89.1	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130	0	0	
Surr: Dibromofluoromethane	9.5		10.00		94.6	70	130	0	0	
Surr: Toluene-d8	9.7		10.00		97.3	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606613**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2nd Qtr GW Sampling

Sample ID **mb-25832**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **25832**	RunNo: **35052**
Prep Date: **6/14/2016**	Analysis Date: **6/21/2016**	SeqNo: **1083880** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	6.4	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	3.5	10								J
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	5.0	10								J
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	4.2	10								J
Diethyl phthalate	ND	10								
Dimethyl phthalate	4.4	10								J
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	4.6	20								J

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606613**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2nd Qtr GW Sampling

Sample ID **mb-25832**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **25832**	RunNo: **35052**
Prep Date: **6/14/2016**	Analysis Date: **6/21/2016**	SeqNo: **1083880** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	100		200.0		52.4	15	123			
Surr: Phenol-d5	95		200.0		47.6	4.13	124			
Surr: 2,4,6-Tribromophenol	160		200.0		81.2	18.4	134			
Surr: Nitrobenzene-d5	61		100.0		60.7	28.8	134			
Surr: 2-Fluorobiphenyl	56		100.0		56.3	35.9	125			
Surr: 4-Terphenyl-d14	110		100.0		108	15	146			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606613**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2nd Qtr GW Sampling

Sample ID **lcs-25832**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **25832**	RunNo: **35052**
Prep Date: **6/14/2016**	Analysis Date: **6/21/2016**	SeqNo: **1083881** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	68	10	100.0	0	67.5	35	113			
4-Chloro-3-methylphenol	150	10	200.0	0	76.6	40.7	114			
2-Chlorophenol	140	10	200.0	0	71.1	37.6	113			
1,4-Dichlorobenzene	53	10	100.0	0	53.3	37.7	106			
2,4-Dinitrotoluene	69	10	100.0	0	69.2	37	91			
N-Nitrosodi-n-propylamine	67	10	100.0	0	66.9	45.4	105			
4-Nitrophenol	110	10	200.0	0	57.2	33.4	104			
Pentachlorophenol	130	20	200.0	0	66.4	29.5	94.9			
Phenol	110	10	200.0	0	56.4	30.6	119			
Pyrene	74	10	100.0	0	73.7	26.2	120			
1,2,4-Trichlorobenzene	57	10	100.0	0	57.3	39.9	125			
Surr: 2-Fluorophenol	110		200.0		57.4	15	123			
Surr: Phenol-d5	110		200.0		54.5	4.13	124			
Surr: 2,4,6-Tribromophenol	150		200.0		72.8	18.4	134			
Surr: Nitrobenzene-d5	68		100.0		68.4	28.8	134			
Surr: 2-Fluorobiphenyl	62		100.0		62.4	35.9	125			
Surr: 4-Terphenyl-d14	89		100.0		88.8	15	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1606613** RcptNo: **1**

Received by/date: CM 06/11/16

Logged By: **Anne Thorne** 6/11/2016 8:54:00 AM Anne Thorne

Completed By: **Anne Thorne** 6/12/2016 Anne Thorne

Reviewed By: JC 6/13/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 15 (≤2 or >12 unless noted)

Adjusted? NO

Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.8	Good				

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client:	WESTERN REFINING SW, INC.
	GALLUP REFINERY
Mailing Address:	92 GIANT CROSSING RD
	GALLUP, NM 87301
Phone #:	505-722-0231
Email or Fax#:	CHERYL.JOHNSON@WNR.COM
QA/QC Package:	Standard / [X] Level 4 (Full Validation)
Accreditation	NELAP / [ ] Other
EDD (Type)	EXCEL

Turn-Around Time: [X] Standard [ ] Rush

Project Name: 2ND QTR GW SAMPLING

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: [X] Yes [ ] No

Sample Temperature: 2.8

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1606613	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations/Anions	WQCC Metals	(Total & Dissolved)		Air Bubbles (Y or N)
6/16	1325	WATER	MKTF-17	40 ML VOA-5	HCL	001			✓							✓						
				1 LITER AMBER-1	NEAT	001											✓					
				250 ML AMBER-1	NEAT	001			✓													
6/16	1400	WATER	MKTF-34	40 ML VOA-5	HCL	002			✓													
				1 LITER AMBER-2	NEAT	002											✓					
				250 ML AMBER-1	NEAT	002			✓													
				500 ML PLASTIC-1	HNO_3	002													✓			
				125 ML PLASTIC-1	HNO_3	002												✓	✓			
				500 ML PLASTIC-1	NEAT	002													✓			
				125 ML PLASTIC-1	H_2SO_4	002												✓				

	Time	Relinquished by:	Received by:	Date	Time	Remarks:
6/16	0854			06/11/16	0831	
		Relinquished by:	Received by:	Date	Time	

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM. 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2ND QTR GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [✓] Yes [ ] No
Sample Temperature: 2.8

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1606613
9/16	1450	WATER	MKTF-18	40 ML VOA-5	HCL	003
				1 LITER AMBER-2	NEAT	003
				250 ML AMBER-1	NEAT	003
				500 ML PLASTIC-1	HNO_3	003
				125 ML PLASTIC-1	HNO_3	003
				500 ML PLASTIC-1	NEAT	003
↓	↓	↓	↓	125 ML PLASTIC-1	H_2SO_4	003
6/16	—	WATER	TRIP BLANK	40 ML VOA-4	HCL	004

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations/Anions	WQCC Metals (Total & Dissolved)		Air Bubbles (Y or N)
		✓							✓					
										✓				
		✓												
												✓		
											✓	✓		
												✓		
											✓			
									✓					

Date: 6/11/16 Time: 0854 Relinquished by:
Date: Time: Relinquished by:

Received by: Date Time: 06/11/16 0854
Received by: Date Time:

Remarks:

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QA/QC Package: Standard ☒ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
☐ EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2ND QTR GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 2.8

HALL ENVIRONMENTAL ANALYSIS LABORATORY
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4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1606613	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1) 8011	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations / Anions	WQCC Metals	(Total & Dissolved)		Air Bubbles (Y or N)
6/9/16	1245	WATER	MKTF-19	40 ML VOA-5	HCL	005			✓							✓						
				1 LITER AMBER-3	NEAT	005											✓					
				250 ML AMBER-1	NEAT	005			✓													
				500 ML PLASTIC-1	HNO_3	005													✓			
				125 ML PLASTIC-1	HNO_3	005												✓	✓			
				500 ML PLASTIC-1	NEAT	005													✓			
↓	↓	↓	↓	125 ML PLASTIC	H_2SO_4	005												✓				
6/10/16	—	WATER	TRIP BLANK	40 ML VOA-4	HCL	006										✓						

Date: 6/11/16 Time: 0854 Relinquished by:
Date: Time: Relinquished by:

Received by:
Date: 06/11/16 Time: 0854
Received by:
Date: Time:

Remarks:

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Turn-Around Time: [X] Standard ☐ Rush
Project Name: 2ND QTR GW SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [✓] Yes ☐ No
Sample Temperature: 2.8

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4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1606613	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (~~Method 504.1~~) 8011	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations / Anions	WQCC Metals (Total & Dissolved)		Air Bubbles (Y or N)
6/16	1545	WATER	MKTF-35	40 ML VOA-8	HCL	001			✓		✓					✓					
				1 LITER AMBER-2	NEAT	002											✓				
				250 ML AMBER-1	NEAT	003			✓												
				500 ML PLASTIC-1	HNO_3	004													✓		
				125 ML PLASTIC-1	HNO_3	005												✓	✓	✓	
				500 ML PLASTIC-1	NEAT	006													✓		
✓	✓	✓	✓	125 ML PLASTIC-1	H_2SO_4	007												✓			
10/16	—	WATER	TRIP BLANK	40 ML VOA-4	HCL	008										✓					

Date: 6/16 Time: 0854 Relinquished by:
Date: Time: Relinquished by:

Received by: Date Time: 06/11/16 0854
Received by: Date Time:

Remarks:

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Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: WESTERN REFINING SW, INC. GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING RD GALLUP NM 87301

Phone #: 505-722-0231

Email or Fax#: CHERYL.JOHNSON@WNR.COM

QA/QC Package: Standard ☒ Level 4 (Full Validation)

Accreditation: ☐ NELAP ☐ Other

EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: 2ND QTR GW SAMPLING

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: ☑ Yes ☐ No

Sample Temperature: 2.8

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1606613
6/10/16	—	WATER	MKTF-DUP03	40 ML VOA-8	HCL	-009
				1 LITER AMBER-2	NEAT	-009
				250 ML AMBER-1	NEAT	-009
				500 ML PLASTIC-1	HNO_3	-009
				125 ML PLASTIC-1	HNO_3	-009
				500 ML PLASTIC-1	NEAT	-009
				125 ML PLASTIC-1	H_2SO_4	-009

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (~~Method 504.1~~ 8011)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations/Anions	WQCC Metals	(Total & Dissolved)		Air Bubbles (Y or N)
		✓		✓					✓						
										✓					
		✓													
												✓			
											✓	✓			
												✓			
											✓				

Date: 6/10/16 Time: 0854 Relinquished by:

Date: Time: Relinquished by:

Received by: Date Time 06/11/16 0854

Received by: Date Time

Remarks:

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HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 26, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 2nd QTR MKTF/PW-4 OrderNo.: 1606615

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/11/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-2
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 2:50:00 PM
Lab ID: 1606615-001
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	0.019	0.0033	0.010		µg/L	1	6/15/2016 4:01:07 PM	25857
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	1.2	0.69	1.0		mg/L	1	6/13/2016 8:35:06 PM	25809
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 8:35:06 PM	25809
Surr: DNOP	107	0	70-141		%Rec	1	6/13/2016 8:35:06 PM	25809
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	5.2	0.13	0.25		mg/L	5	6/14/2016 3:23:49 PM	A34904
Surr: BFB	126	0	66.4-120	S	%Rec	5	6/14/2016 3:23:49 PM	A34904
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	2.7	0.023	0.10		mg/L	1	6/14/2016 1:08:31 AM	AR3488
Chloride	390	1.4	25		mg/L	50	6/30/2016 12:14:31 AM	A35338
Bromide	0.16	0.032	0.10		mg/L	1	6/14/2016 1:08:31 AM	AR3488
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/14/2016 1:08:31 AM	AR3488
Sulfate	50	0.064	0.50		mg/L	1	6/14/2016 1:08:31 AM	AR3488
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/14/2016 4:02:16 AM	AR3488
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.13	0.0013	0.0020		mg/L	1	6/28/2016 6:24:07 PM	B35265
Cadmium	ND	0.00075	0.0020		mg/L	1	6/28/2016 6:24:07 PM	B35265
Calcium	55	0.26	1.0		mg/L	1	6/28/2016 6:24:07 PM	B35265
Chromium	ND	0.0018	0.0060		mg/L	1	6/28/2016 6:24:07 PM	B35265
Copper	ND	0.0040	0.0060		mg/L	1	6/28/2016 6:24:07 PM	B35265
Iron	0.081	0.0091	0.020		mg/L	1	6/28/2016 6:24:07 PM	B35265
Magnesium	8.9	0.013	1.0		mg/L	1	6/28/2016 6:24:07 PM	B35265
Manganese	0.33	0.00032	0.0020	*	mg/L	1	6/28/2016 6:24:07 PM	B35265
Potassium	2.5	0.18	1.0		mg/L	1	6/28/2016 6:24:07 PM	B35265
Silver	ND	0.0028	0.0050		mg/L	1	6/28/2016 6:24:07 PM	B35265
Sodium	550	0.96	10		mg/L	10	6/28/2016 6:26:03 PM	B35265
Zinc	0.0033	0.0028	0.010	J	mg/L	1	6/28/2016 6:24:07 PM	B35265
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.19	0.0011	0.0020		mg/L	1	6/28/2016 1:48:16 PM	25969
Cadmium	ND	0.00062	0.0020		mg/L	1	6/28/2016 1:48:16 PM	25969
Chromium	0.0027	0.0022	0.0060	J	mg/L	1	6/28/2016 1:48:16 PM	25969
Copper	ND	0.0051	0.0060		mg/L	1	6/28/2016 1:48:16 PM	25969
Iron	2.6	0.036	0.10	*	mg/L	5	6/28/2016 1:49:57 PM	25969
Manganese	0.40	0.0015	0.0020	*	mg/L	1	6/28/2016 1:48:16 PM	25969
Silver	ND	0.0021	0.0050		mg/L	1	6/28/2016 1:48:16 PM	25969
Zinc	0.012	0.0039	0.010		mg/L	1	6/28/2016 1:48:16 PM	25969

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-2
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 2:50:00 PM
Lab ID: 1606615-001
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0028	0.00014	0.0010		mg/L	1	7/6/2016 8:58:04 PM	C35457
Lead	0.00049	0.00017	0.00050	J	mg/L	1	7/6/2016 8:58:04 PM	C35457
Selenium	0.0061	0.00021	0.0010		mg/L	1	7/6/2016 8:58:04 PM	C35457
Uranium	0.033	0.00026	0.0025	*	mg/L	5	7/6/2016 9:01:08 PM	C35457
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0024	0.00029	0.0010		mg/L	1	6/28/2016 7:33:23 PM	25969
Lead	0.0034	0.000047	0.00050		mg/L	1	6/28/2016 7:33:23 PM	25969
Selenium	0.0046	0.00062	0.0050	J	mg/L	5	6/29/2016 11:06:50 AM	25969
Uranium	0.033	0.000025	0.0025	*	mg/L	5	6/29/2016 11:06:50 AM	25969
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	6/28/2016 2:26:29 PM	26107
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	13	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Acenaphthylene	ND	12	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Aniline	ND	12	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Anthracene	ND	12	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Azobenzene	ND	13	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Benz(a)anthracene	ND	13	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Benzo(a)pyrene	ND	14	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Benzo(b)fluoranthene	ND	14	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Benzo(g,h,i)perylene	ND	13	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Benzo(k)fluoranthene	ND	15	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Benzoic acid	ND	13	100	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Benzyl alcohol	ND	15	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Bis(2-chloroethoxy)methane	ND	14	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Bis(2-chloroethyl)ether	ND	13	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Bis(2-chloroisopropyl)ether	ND	9.5	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Bis(2-ethylhexyl)phthalate	18	13	50	JD	µg/L	1	6/22/2016 12:13:53 AM	25832
4-Bromophenyl phenyl ether	ND	13	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Butyl benzyl phthalate	ND	12	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Carbazole	ND	11	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
4-Chloro-3-methylphenol	ND	13	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
4-Chloroaniline	ND	14	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
2-Chloronaphthalene	ND	11	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
2-Chlorophenol	ND	11	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
4-Chlorophenyl phenyl ether	ND	13	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Chrysene	ND	14	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Di-n-butyl phthalate	ND	12	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832

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Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Di-n-octyl phthalate	28	9.9	50	JD	µg/L	1	6/22/2016 12:13:53 AM	25832
Dibenz(a,h)anthracene	ND	13	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Dibenzofuran	ND	12	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
1,2-Dichlorobenzene	ND	11	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
1,3-Dichlorobenzene	ND	11	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
1,4-Dichlorobenzene	ND	12	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
3,3´-Dichlorobenzidine	ND	12	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Diethyl phthalate	ND	14	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Dimethyl phthalate	ND	12	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
2,4-Dichlorophenol	ND	12	100	D	µg/L	1	6/22/2016 12:13:53 AM	25832
2,4-Dimethylphenol	ND	15	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
4,6-Dinitro-2-methylphenol	ND	9.0	100	D	µg/L	1	6/22/2016 12:13:53 AM	25832
2,4-Dinitrophenol	ND	14	100	D	µg/L	1	6/22/2016 12:13:53 AM	25832
2,4-Dinitrotoluene	ND	16	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
2,6-Dinitrotoluene	ND	14	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Fluoranthene	ND	13	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Fluorene	ND	14	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Hexachlorobenzene	ND	13	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Hexachlorobutadiene	ND	11	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Hexachlorocyclopentadiene	ND	11	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Hexachloroethane	ND	12	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Indeno(1,2,3-cd)pyrene	ND	15	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Isophorone	ND	13	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
1-Methylnaphthalene	ND	15	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
2-Methylnaphthalene	ND	14	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
2-Methylphenol	ND	13	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
3+4-Methylphenol	ND	11	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
N-Nitrosodi-n-propylamine	ND	12	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
N-Nitrosodimethylamine	ND	11	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
N-Nitrosodiphenylamine	ND	12	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Naphthalene	ND	13	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
2-Nitroaniline	ND	14	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
3-Nitroaniline	ND	15	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
4-Nitroaniline	ND	13	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Nitrobenzene	ND	14	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
2-Nitrophenol	ND	12	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
4-Nitrophenol	ND	13	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Pentachlorophenol	ND	12	100	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Phenanthrene	ND	13	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832

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CLIENT: Western Refining Southwest, Gallup
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Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 2:50:00 PM
Lab ID: 1606615-001
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Phenol	ND	9.9	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Pyrene	ND	15	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Pyridine	ND	11	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
1,2,4-Trichlorobenzene	ND	13	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
2,4,5-Trichlorophenol	ND	11	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
2,4,6-Trichlorophenol	ND	12	50	D	µg/L	1	6/22/2016 12:13:53 AM	25832
Surr: 2-Fluorophenol	56.6	0	15-123	D	%Rec	1	6/22/2016 12:13:53 AM	25832
Surr: Phenol-d5	50.4	0	4.13-124	D	%Rec	1	6/22/2016 12:13:53 AM	25832
Surr: 2,4,6-Tribromophenol	78.8	0	18.4-134	D	%Rec	1	6/22/2016 12:13:53 AM	25832
Surr: Nitrobenzene-d5	79.4	0	28.8-134	D	%Rec	1	6/22/2016 12:13:53 AM	25832
Surr: 2-Fluorobiphenyl	73.1	0	35.9-125	D	%Rec	1	6/22/2016 12:13:53 AM	25832
Surr: 4-Terphenyl-d14	47.2	0	15-146	D	%Rec	1	6/22/2016 12:13:53 AM	25832
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	1200	1.9	20		µg/L	20	6/17/2016 6:08:00 PM	R35008
Toluene	26	0.59	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
Ethylbenzene	210	0.56	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
Methyl tert-butyl ether (MTBE)	87	1.1	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
1,2,4-Trimethylbenzene	130	0.55	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
1,3,5-Trimethylbenzene	9.7	0.58	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
Naphthalene	25	0.46	10		µg/L	5	6/17/2016 6:31:00 PM	R35008
1-Methylnaphthalene	15	1.0	20	J	µg/L	5	6/17/2016 6:31:00 PM	R35008
2-Methylnaphthalene	2.8	0.79	20	J	µg/L	5	6/17/2016 6:31:00 PM	R35008
Acetone	ND	25	50		µg/L	5	6/17/2016 6:31:00 PM	R35008
Bromobenzene	ND	0.49	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
Bromodichloromethane	ND	0.70	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
Bromoform	ND	0.51	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
Bromomethane	ND	3.9	15		µg/L	5	6/17/2016 6:31:00 PM	R35008
2-Butanone	ND	3.7	50		µg/L	5	6/17/2016 6:31:00 PM	R35008
Carbon disulfide	ND	3.0	50		µg/L	5	6/17/2016 6:31:00 PM	R35008
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
Chlorobenzene	ND	0.57	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
Chloroethane	ND	0.96	10		µg/L	5	6/17/2016 6:31:00 PM	R35008
Chloroform	ND	0.44	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
Chloromethane	ND	1.1	15		µg/L	5	6/17/2016 6:31:00 PM	R35008
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
cis-1,2-DCE	12	0.62	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	6/17/2016 6:31:00 PM	R35008
Dibromochloromethane	ND	0.43	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
Dibromomethane	ND	0.60	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
1,1-Dichloroethane	46	0.54	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
1,1-Dichloroethene	18	0.54	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
2,2-Dichloropropane	ND	0.83	10		µg/L	5	6/17/2016 6:31:00 PM	R35008
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
2-Hexanone	ND	4.2	50		µg/L	5	6/17/2016 6:31:00 PM	R35008
Isopropylbenzene	13	0.52	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
4-Isopropyltoluene	1.6	0.70	5.0	J	µg/L	5	6/17/2016 6:31:00 PM	R35008
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	6/17/2016 6:31:00 PM	R35008
Methylene Chloride	ND	0.94	15		µg/L	5	6/17/2016 6:31:00 PM	R35008
n-Butylbenzene	4.9	0.80	15	J	µg/L	5	6/17/2016 6:31:00 PM	R35008
n-Propylbenzene	37	0.66	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
sec-Butylbenzene	2.4	0.62	5.0	J	µg/L	5	6/17/2016 6:31:00 PM	R35008
Styrene	ND	0.55	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	6/17/2016 6:31:00 PM	R35008
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
Trichloroethene (TCE)	2.9	0.88	5.0	J	µg/L	5	6/17/2016 6:31:00 PM	R35008
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	6/17/2016 6:31:00 PM	R35008
Vinyl chloride	ND	0.98	5.0		µg/L	5	6/17/2016 6:31:00 PM	R35008
Xylenes, Total	160	1.8	7.5		µg/L	5	6/17/2016 6:31:00 PM	R35008

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-2
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 2:50:00 PM
Lab ID: 1606615-001
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 1,2-Dichloroethane-d4	90.2	0	70-130		%Rec	5	6/17/2016 6:31:00 PM	R35008
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	5	6/17/2016 6:31:00 PM	R35008
Surr: Dibromofluoromethane	92.6	0	70-130		%Rec	5	6/17/2016 6:31:00 PM	R35008
Surr: Toluene-d8	96.9	0	70-130		%Rec	5	6/17/2016 6:31:00 PM	R35008

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-33
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 1:00:00 PM
Lab ID: 1606615-002
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/13/2016 8:57:23 PM	25809
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 8:57:23 PM	25809
Surr: DNOP	111	0	70-141		%Rec	1	6/13/2016 8:57:23 PM	25809
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.69	0.025	0.050		mg/L	1	6/14/2016 4:37:19 PM	A34904
Surr: BFB	99.3	0	66.4-120		%Rec	1	6/14/2016 4:37:19 PM	A34904
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.30	0.023	0.10		mg/L	1	6/14/2016 1:33:20 AM	AR3488
Chloride	100	0.55	10		mg/L	20	6/30/2016 12:26:56 AM	A35338
Bromide	0.54	0.032	0.10		mg/L	1	6/14/2016 1:33:20 AM	AR3488
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/14/2016 1:33:20 AM	AR3488
Sulfate	340	2.8	10		mg/L	20	6/30/2016 12:26:56 AM	A35338
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/14/2016 4:14:41 AM	AR3488
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.040	0.0013	0.0020		mg/L	1	6/28/2016 6:27:58 PM	B35265
Cadmium	ND	0.00075	0.0020		mg/L	1	6/28/2016 6:27:58 PM	B35265
Calcium	88	0.26	1.0		mg/L	1	6/28/2016 6:27:58 PM	B35265
Chromium	ND	0.0018	0.0060		mg/L	1	6/28/2016 6:27:58 PM	B35265
Copper	ND	0.0040	0.0060		mg/L	1	6/28/2016 6:27:58 PM	B35265
Iron	0.014	0.0091	0.020	J	mg/L	1	6/28/2016 6:27:58 PM	B35265
Magnesium	19	0.013	1.0		mg/L	1	6/28/2016 6:27:58 PM	B35265
Manganese	0.031	0.00032	0.0020		mg/L	1	6/28/2016 6:27:58 PM	B35265
Potassium	1.0	0.18	1.0		mg/L	1	6/28/2016 6:27:58 PM	B35265
Silver	ND	0.0028	0.0050		mg/L	1	6/28/2016 6:27:58 PM	B35265
Sodium	310	0.48	5.0		mg/L	5	6/28/2016 6:29:57 PM	B35265
Zinc	0.011	0.0028	0.010		mg/L	1	6/28/2016 6:27:58 PM	B35265
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.33	0.0011	0.0020		mg/L	1	6/28/2016 1:53:44 PM	25969
Cadmium	ND	0.00062	0.0020		mg/L	1	6/28/2016 1:53:44 PM	25969
Chromium	0.0075	0.0022	0.0060		mg/L	1	6/28/2016 1:53:44 PM	25969
Copper	ND	0.0051	0.0060		mg/L	1	6/28/2016 1:53:44 PM	25969
Iron	6.2	0.072	0.20	*	mg/L	10	6/29/2016 1:33:17 PM	25969
Manganese	0.96	0.0015	0.0020	*	mg/L	1	6/28/2016 1:53:44 PM	25969
Silver	ND	0.0021	0.0050		mg/L	1	6/28/2016 1:53:44 PM	25969
Zinc	0.028	0.0039	0.010		mg/L	1	6/28/2016 1:53:44 PM	25969
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0017	0.00069	0.0050	J	mg/L	5	7/6/2016 9:07:15 PM	C35457

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-33
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 1:00:00 PM
Lab ID: 1606615-002
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00017	0.00050		mg/L	1	7/6/2016 9:04:11 PM	C35457
Selenium	0.0040	0.00021	0.0010		mg/L	1	7/6/2016 9:04:11 PM	C35457
Uranium	0.038	0.00026	0.0025	*	mg/L	5	7/6/2016 9:07:15 PM	C35457
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0019	0.00029	0.0010		mg/L	1	6/28/2016 7:36:24 PM	25969
Lead	0.0098	0.000047	0.00050		mg/L	1	6/28/2016 7:36:24 PM	25969
Selenium	0.0038	0.00062	0.0050	J	mg/L	5	6/29/2016 11:09:50 AM	25969
Uranium	0.040	0.000025	0.0025	*	mg/L	5	6/29/2016 11:09:50 AM	25969
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000056	0.000053	0.00020	J	mg/L	1	6/28/2016 2:28:36 PM	26107
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Acenaphthylene	ND	2.4	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Aniline	ND	2.4	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Anthracene	ND	2.5	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Azobenzene	ND	2.7	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Benzoic acid	ND	2.6	20		µg/L	1	6/22/2016 12:42:27 AM	25832
Benzyl alcohol	ND	3.0	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Bis(2-ethylhexyl)phthalate	3.2	2.6	10	J	µg/L	1	6/22/2016 12:42:27 AM	25832
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Carbazole	ND	2.3	10		µg/L	1	6/22/2016 12:42:27 AM	25832
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/22/2016 12:42:27 AM	25832
4-Chloroaniline	ND	2.7	10		µg/L	1	6/22/2016 12:42:27 AM	25832
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/22/2016 12:42:27 AM	25832
2-Chlorophenol	ND	2.2	10		µg/L	1	6/22/2016 12:42:27 AM	25832
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Chrysene	ND	2.8	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Di-n-octyl phthalate	4.9	2.0	10	J	µg/L	1	6/22/2016 12:42:27 AM	25832

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-33
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 1:00:00 PM
Lab ID: 1606615-002
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Dibenzofuran	ND	2.5	10		µg/L	1	6/22/2016 12:42:27 AM	25832
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/22/2016 12:42:27 AM	25832
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/22/2016 12:42:27 AM	25832
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/22/2016 12:42:27 AM	25832
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Diethyl phthalate	ND	2.7	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/22/2016 12:42:27 AM	25832
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/22/2016 12:42:27 AM	25832
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/22/2016 12:42:27 AM	25832
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/22/2016 12:42:27 AM	25832
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/22/2016 12:42:27 AM	25832
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/22/2016 12:42:27 AM	25832
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Fluoranthene	ND	2.6	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Fluorene	ND	2.7	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Hexachloroethane	ND	2.4	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Isophorone	ND	2.6	10		µg/L	1	6/22/2016 12:42:27 AM	25832
1-Methylnaphthalene	ND	2.9	10		µg/L	1	6/22/2016 12:42:27 AM	25832
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/22/2016 12:42:27 AM	25832
2-Methylphenol	ND	2.5	10		µg/L	1	6/22/2016 12:42:27 AM	25832
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/22/2016 12:42:27 AM	25832
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/22/2016 12:42:27 AM	25832
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/22/2016 12:42:27 AM	25832
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Naphthalene	ND	2.6	10		µg/L	1	6/22/2016 12:42:27 AM	25832
2-Nitroaniline	ND	2.8	10		µg/L	1	6/22/2016 12:42:27 AM	25832
3-Nitroaniline	ND	2.9	10		µg/L	1	6/22/2016 12:42:27 AM	25832
4-Nitroaniline	ND	2.6	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Nitrobenzene	ND	2.8	10		µg/L	1	6/22/2016 12:42:27 AM	25832
2-Nitrophenol	ND	2.4	10		µg/L	1	6/22/2016 12:42:27 AM	25832
4-Nitrophenol	ND	2.6	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Pentachlorophenol	ND	2.3	20		µg/L	1	6/22/2016 12:42:27 AM	25832
Phenanthrene	ND	2.6	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Phenol	ND	2.0	10		µg/L	1	6/22/2016 12:42:27 AM	25832

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-33
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 1:00:00 PM
Lab ID: 1606615-002
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Pyrene	ND	3.1	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Pyridine	ND	2.2	10		µg/L	1	6/22/2016 12:42:27 AM	25832
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/22/2016 12:42:27 AM	25832
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/22/2016 12:42:27 AM	25832
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/22/2016 12:42:27 AM	25832
Surr: 2-Fluorophenol	41.5	0	15-123		%Rec	1	6/22/2016 12:42:27 AM	25832
Surr: Phenol-d5	33.9	0	4.13-124		%Rec	1	6/22/2016 12:42:27 AM	25832
Surr: 2,4,6-Tribromophenol	67.0	0	18.4-134		%Rec	1	6/22/2016 12:42:27 AM	25832
Surr: Nitrobenzene-d5	78.0	0	28.8-134		%Rec	1	6/22/2016 12:42:27 AM	25832
Surr: 2-Fluorobiphenyl	73.8	0	35.9-125		%Rec	1	6/22/2016 12:42:27 AM	25832
Surr: 4-Terphenyl-d14	33.9	0	15-146		%Rec	1	6/22/2016 12:42:27 AM	25832
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
Toluene	ND	0.12	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
Methyl tert-butyl ether (MTBE)	400	2.1	10		µg/L	10	6/17/2016 6:54:00 PM	R35008
1,2,4-Trimethylbenzene	0.18	0.11	1.0	J	µg/L	1	6/17/2016 7:18:00 PM	R35008
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
Naphthalene	ND	0.093	2.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
Acetone	ND	4.9	10		µg/L	1	6/17/2016 7:18:00 PM	R35008
Bromobenzene	ND	0.098	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
Bromoform	ND	0.10	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
Bromomethane	ND	0.78	3.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
2-Butanone	ND	0.74	10		µg/L	1	6/17/2016 7:18:00 PM	R35008
Carbon disulfide	ND	0.60	10		µg/L	1	6/17/2016 7:18:00 PM	R35008
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
Chloroethane	ND	0.19	2.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
Chloroform	ND	0.089	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
Chloromethane	ND	0.21	3.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-33
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 1:00:00 PM
Lab ID: 1606615-002
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
Dibromomethane	ND	0.12	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
1,4-Dichlorobenzene	0.14	0.14	1.0	J	µg/L	1	6/17/2016 7:18:00 PM	R35008
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
2-Hexanone	ND	0.84	10		µg/L	1	6/17/2016 7:18:00 PM	R35008
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/17/2016 7:18:00 PM	R35008
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
sec-Butylbenzene	0.60	0.12	1.0	J	µg/L	1	6/17/2016 7:18:00 PM	R35008
Styrene	ND	0.11	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/17/2016 7:18:00 PM	R35008
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/17/2016 7:18:00 PM	R35008
Surr: 1,2-Dichloroethane-d4	89.4	0	70-130		%Rec	1	6/17/2016 7:18:00 PM	R35008

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Hall Environmental Analysis Laboratory, Inc.

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Client Sample ID: MKTF-33
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 1:00:00 PM
Lab ID: 1606615-002
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	6/17/2016 7:18:00 PM	R35008
Surr: Dibromofluoromethane	91.5	0	70-130		%Rec	1	6/17/2016 7:18:00 PM	R35008
Surr: Toluene-d8	101	0	70-130		%Rec	1	6/17/2016 7:18:00 PM	R35008

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-22
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 1:20:00 PM
Lab ID: 1606615-003
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	2.5	0.69	1.0		mg/L	1	6/13/2016 9:19:16 PM	25809
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 9:19:16 PM	25809
Surr: DNOP	109	0	70-141		%Rec	1	6/13/2016 9:19:16 PM	25809
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	27	1.3	2.5		mg/L	50	6/14/2016 5:01:56 PM	A34904
Surr: BFB	105	0	66.4-120		%Rec	50	6/14/2016 5:01:56 PM	A34904
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.37	0.023	0.10		mg/L	1	6/14/2016 1:58:10 AM	AR3488
Chloride	99	0.55	10		mg/L	20	6/14/2016 2:10:34 AM	AR3488
Bromide	0.096	0.032	0.10	J	mg/L	1	6/14/2016 1:58:10 AM	AR3488
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/14/2016 1:58:10 AM	AR3488
Sulfate	4.2	0.064	0.50		mg/L	1	6/14/2016 1:58:10 AM	AR3488
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/14/2016 4:27:06 AM	AR3488
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	1.1	0.013	0.020		mg/L	10	6/28/2016 6:33:38 PM	B35265
Cadmium	ND	0.00075	0.0020		mg/L	1	6/28/2016 6:31:56 PM	B35265
Calcium	120	2.6	10		mg/L	10	6/28/2016 6:33:38 PM	B35265
Chromium	ND	0.0018	0.0060		mg/L	1	6/28/2016 6:31:56 PM	B35265
Copper	ND	0.0040	0.0060		mg/L	1	6/28/2016 6:31:56 PM	B35265
Iron	2.9	0.091	0.20	*	mg/L	10	6/28/2016 6:33:38 PM	B35265
Magnesium	24	0.013	1.0		mg/L	1	6/28/2016 6:31:56 PM	B35265
Manganese	2.2	0.0032	0.020	*	mg/L	10	6/28/2016 6:33:38 PM	B35265
Potassium	0.82	0.18	1.0	J	mg/L	1	6/28/2016 6:31:56 PM	B35265
Silver	ND	0.0028	0.0050		mg/L	1	6/28/2016 6:31:56 PM	B35265
Sodium	250	0.96	10		mg/L	10	6/28/2016 6:33:38 PM	B35265
Zinc	ND	0.0028	0.010		mg/L	1	6/28/2016 6:31:56 PM	B35265
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	2.2	0.0053	0.010	*	mg/L	5	6/28/2016 2:04:50 PM	25969
Cadmium	ND	0.00062	0.0020		mg/L	1	6/28/2016 2:03:05 PM	25969
Chromium	0.0062	0.0022	0.0060		mg/L	1	6/28/2016 2:03:05 PM	25969
Copper	ND	0.0051	0.0060		mg/L	1	6/28/2016 2:03:05 PM	25969
Iron	17	0.36	1.0	*	mg/L	50	6/28/2016 2:06:39 PM	25969
Manganese	3.7	0.0076	0.010	*	mg/L	5	6/28/2016 2:04:50 PM	25969
Silver	ND	0.0021	0.0050		mg/L	1	6/28/2016 2:03:05 PM	25969
Zinc	0.033	0.0039	0.010		mg/L	1	6/28/2016 2:03:05 PM	25969
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0025	0.00069	0.0050	J	mg/L	5	7/6/2016 9:13:22 PM	C35457

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-22
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 1:20:00 PM
Lab ID: 1606615-003
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00017	0.00050		mg/L	1	7/6/2016 9:10:18 PM	C35457
Selenium	0.0046	0.00021	0.0010		mg/L	1	7/6/2016 9:10:18 PM	C35457
Uranium	0.0028	0.000051	0.00050		mg/L	1	7/6/2016 9:10:18 PM	C35457
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0025	0.00029	0.0010		mg/L	1	6/28/2016 7:39:24 PM	25969
Lead	0.022	0.000047	0.00050	*	mg/L	1	6/28/2016 7:39:24 PM	25969
Selenium	0.0039	0.00062	0.0050	J	mg/L	5	6/29/2016 11:18:57 AM	25969
Uranium	0.0047	0.0000049	0.00050		mg/L	1	6/28/2016 7:39:24 PM	25969
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	6/28/2016 2:34:57 PM	26107
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	3.9	2.6	10	J	µg/L	1	6/20/2016 11:29:28 PM	25862
Acenaphthylene	ND	2.4	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Aniline	ND	2.4	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Anthracene	ND	2.5	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Azobenzene	ND	2.7	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Benzoic acid	ND	2.6	20		µg/L	1	6/20/2016 11:29:28 PM	25862
Benzyl alcohol	ND	3.0	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Bis(2-ethylhexyl)phthalate	4.6	2.6	10	J	µg/L	1	6/20/2016 11:29:28 PM	25862
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Carbazole	5.3	2.3	10	J	µg/L	1	6/20/2016 11:29:28 PM	25862
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/20/2016 11:29:28 PM	25862
4-Chloroaniline	ND	2.7	10		µg/L	1	6/20/2016 11:29:28 PM	25862
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/20/2016 11:29:28 PM	25862
2-Chlorophenol	ND	2.2	10		µg/L	1	6/20/2016 11:29:28 PM	25862
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Chrysene	ND	2.8	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Di-n-octyl phthalate	9.1	2.0	10	J	µg/L	1	6/20/2016 11:29:28 PM	25862

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-22
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 1:20:00 PM
Lab ID: 1606615-003
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Dibenzofuran	ND	2.5	10		µg/L	1	6/20/2016 11:29:28 PM	25862
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/20/2016 11:29:28 PM	25862
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/20/2016 11:29:28 PM	25862
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/20/2016 11:29:28 PM	25862
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Diethyl phthalate	ND	2.7	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/20/2016 11:29:28 PM	25862
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/20/2016 11:29:28 PM	25862
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/20/2016 11:29:28 PM	25862
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/20/2016 11:29:28 PM	25862
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/20/2016 11:29:28 PM	25862
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/20/2016 11:29:28 PM	25862
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Fluoranthene	ND	2.6	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Fluorene	ND	2.7	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Hexachloroethane	ND	2.4	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Isophorone	ND	2.6	10		µg/L	1	6/20/2016 11:29:28 PM	25862
1-Methylnaphthalene	67	2.9	10		µg/L	1	6/20/2016 11:29:28 PM	25862
2-Methylnaphthalene	11	2.9	10		µg/L	1	6/20/2016 11:29:28 PM	25862
2-Methylphenol	ND	2.5	10		µg/L	1	6/20/2016 11:29:28 PM	25862
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/20/2016 11:29:28 PM	25862
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/20/2016 11:29:28 PM	25862
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/20/2016 11:29:28 PM	25862
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Naphthalene	46	2.6	10		µg/L	1	6/20/2016 11:29:28 PM	25862
2-Nitroaniline	ND	2.8	10		µg/L	1	6/20/2016 11:29:28 PM	25862
3-Nitroaniline	ND	2.9	10		µg/L	1	6/20/2016 11:29:28 PM	25862
4-Nitroaniline	ND	2.6	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Nitrobenzene	ND	2.8	10		µg/L	1	6/20/2016 11:29:28 PM	25862
2-Nitrophenol	ND	2.4	10		µg/L	1	6/20/2016 11:29:28 PM	25862
4-Nitrophenol	ND	2.6	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Pentachlorophenol	ND	2.3	20		µg/L	1	6/20/2016 11:29:28 PM	25862
Phenanthrene	ND	2.6	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Phenol	19	2.0	10		µg/L	1	6/20/2016 11:29:28 PM	25862

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Collection Date: 6/10/2016 1:20:00 PM
Lab ID: 1606615-003
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Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Pyrene	ND	3.1	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Pyridine	ND	2.2	10		µg/L	1	6/20/2016 11:29:28 PM	25862
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/20/2016 11:29:28 PM	25862
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/20/2016 11:29:28 PM	25862
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/20/2016 11:29:28 PM	25862
Surr: 2-Fluorophenol	49.0	0	15-123		%Rec	1	6/20/2016 11:29:28 PM	25862
Surr: Phenol-d5	40.6	0	4.13-124		%Rec	1	6/20/2016 11:29:28 PM	25862
Surr: 2,4,6-Tribromophenol	81.6	0	18.4-134		%Rec	1	6/20/2016 11:29:28 PM	25862
Surr: Nitrobenzene-d5	83.3	0	28.8-134		%Rec	1	6/20/2016 11:29:28 PM	25862
Surr: 2-Fluorobiphenyl	79.5	0	35.9-125		%Rec	1	6/20/2016 11:29:28 PM	25862
Surr: 4-Terphenyl-d14	71.2	0	15-146		%Rec	1	6/20/2016 11:29:28 PM	25862
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	3800	4.8	50		µg/L	50	6/17/2016 7:41:00 PM	R35008
Toluene	35	1.2	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
Ethylbenzene	500	1.1	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
Methyl tert-butyl ether (MTBE)	6500	11	50		µg/L	50	6/17/2016 7:41:00 PM	R35008
1,2,4-Trimethylbenzene	25	1.1	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
1,3,5-Trimethylbenzene	1.7	1.2	10	J	µg/L	10	6/17/2016 8:04:00 PM	R35008
1,2-Dichloroethane (EDC)	ND	1.2	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
Naphthalene	73	0.93	20		µg/L	10	6/17/2016 8:04:00 PM	R35008
1-Methylnaphthalene	88	2.0	40		µg/L	10	6/17/2016 8:04:00 PM	R35008
2-Methylnaphthalene	16	1.6	40	J	µg/L	10	6/17/2016 8:04:00 PM	R35008
Acetone	82	49	100	J	µg/L	10	6/17/2016 8:04:00 PM	R35008
Bromobenzene	ND	0.98	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
Bromodichloromethane	ND	1.4	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
Bromoform	ND	1.0	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
Bromomethane	ND	7.8	30		µg/L	10	6/17/2016 8:04:00 PM	R35008
2-Butanone	31	7.4	100	J	µg/L	10	6/17/2016 8:04:00 PM	R35008
Carbon disulfide	ND	6.0	100		µg/L	10	6/17/2016 8:04:00 PM	R35008
Carbon Tetrachloride	ND	1.1	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
Chlorobenzene	ND	1.1	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
Chloroethane	ND	1.9	20		µg/L	10	6/17/2016 8:04:00 PM	R35008
Chloroform	ND	0.89	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
Chloromethane	ND	2.1	30		µg/L	10	6/17/2016 8:04:00 PM	R35008
2-Chlorotoluene	ND	4.0	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
4-Chlorotoluene	ND	1.3	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
cis-1,2-DCE	8.0	1.2	10	J	µg/L	10	6/17/2016 8:04:00 PM	R35008
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	6/17/2016 8:04:00 PM	R35008

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-22
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 1:20:00 PM
Lab ID: 1606615-003
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	6/17/2016 8:04:00 PM	R35008
Dibromochloromethane	ND	0.87	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
Dibromomethane	ND	1.2	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
1,1-Dichloroethane	ND	1.1	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
1,1-Dichloroethene	6.9	1.1	10	J	µg/L	10	6/17/2016 8:04:00 PM	R35008
1,2-Dichloropropane	ND	1.1	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
1,3-Dichloropropane	ND	1.6	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
2,2-Dichloropropane	ND	1.7	20		µg/L	10	6/17/2016 8:04:00 PM	R35008
1,1-Dichloropropene	ND	1.3	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
Hexachlorobutadiene	ND	2.0	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
2-Hexanone	ND	8.4	100		µg/L	10	6/17/2016 8:04:00 PM	R35008
Isopropylbenzene	21	1.0	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
4-Isopropyltoluene	3.8	1.4	10	J	µg/L	10	6/17/2016 8:04:00 PM	R35008
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	6/17/2016 8:04:00 PM	R35008
Methylene Chloride	ND	1.9	30		µg/L	10	6/17/2016 8:04:00 PM	R35008
n-Butylbenzene	14	1.6	30	J	µg/L	10	6/17/2016 8:04:00 PM	R35008
n-Propylbenzene	51	1.3	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
sec-Butylbenzene	7.4	1.2	10	J	µg/L	10	6/17/2016 8:04:00 PM	R35008
Styrene	ND	1.1	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
tert-Butylbenzene	ND	1.2	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	6/17/2016 8:04:00 PM	R35008
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
trans-1,2-DCE	ND	4.0	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
1,1,1-Trichloroethane	ND	0.91	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
Trichlorofluoromethane	ND	2.0	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	6/17/2016 8:04:00 PM	R35008
Vinyl chloride	ND	2.0	10		µg/L	10	6/17/2016 8:04:00 PM	R35008
Xylenes, Total	62	3.7	15		µg/L	10	6/17/2016 8:04:00 PM	R35008
Surr: 1,2-Dichloroethane-d4	90.9	0	70-130		%Rec	10	6/17/2016 8:04:00 PM	R35008

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-22
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 1:20:00 PM
Lab ID: 1606615-003
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 4-Bromofluorobenzene	104	0	70-130		%Rec	10	6/17/2016 8:04:00 PM	R35008
Surr: Dibromofluoromethane	93.5	0	70-130		%Rec	10	6/17/2016 8:04:00 PM	R35008
Surr: Toluene-d8	97.6	0	70-130		%Rec	10	6/17/2016 8:04:00 PM	R35008

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-23
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 11:15:00 AM
Lab ID: 1606615-004
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	710	6.9	10		mg/L	10	6/16/2016 9:30:44 AM	25865
Motor Oil Range Organics (MRO)	ND	50	50		mg/L	10	6/16/2016 9:30:44 AM	25865
Surr: DNOP	0	0	70-141	S	%Rec	10	6/16/2016 9:30:44 AM	25865
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	38	1.3	2.5		mg/L	50	6/16/2016 1:17:49 PM	B34963
Surr: BFB	125	0	66.4-120	S	%Rec	50	6/16/2016 1:17:49 PM	B34963
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.75	0.11	0.50		mg/L	5	6/14/2016 11:21:05 PM	R34930
Chloride	240	0.55	10		mg/L	20	6/14/2016 11:33:30 PM	R34930
Bromide	1.4	0.16	0.50		mg/L	5	6/14/2016 11:21:05 PM	R34930
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5	H	mg/L	5	6/14/2016 11:21:05 PM	R34930
Sulfate	0.36	0.32	2.5	J	mg/L	5	6/14/2016 11:21:05 PM	R34930
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/14/2016 11:58:19 PM	R34930
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.66	0.0013	0.0020		mg/L	1	6/28/2016 6:35:33 PM	B35265
Cadmium	ND	0.00075	0.0020		mg/L	1	6/28/2016 6:35:33 PM	B35265
Calcium	68	0.26	1.0		mg/L	1	6/28/2016 6:35:33 PM	B35265
Chromium	ND	0.0018	0.0060		mg/L	1	6/28/2016 6:35:33 PM	B35265
Copper	ND	0.0040	0.0060		mg/L	1	6/28/2016 6:35:33 PM	B35265
Iron	2.6	0.045	0.10	*	mg/L	5	6/28/2016 6:37:27 PM	B35265
Magnesium	12	0.013	1.0		mg/L	1	6/28/2016 6:35:33 PM	B35265
Manganese	1.8	0.0016	0.010	*	mg/L	5	6/28/2016 6:37:27 PM	B35265
Potassium	1.3	0.18	1.0		mg/L	1	6/28/2016 6:35:33 PM	B35265
Silver	ND	0.0028	0.0050		mg/L	1	6/28/2016 6:35:33 PM	B35265
Sodium	460	0.48	5.0		mg/L	5	6/28/2016 6:37:27 PM	B35265
Zinc	ND	0.0028	0.010		mg/L	1	6/28/2016 6:35:33 PM	B35265
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.80	0.0011	0.0020		mg/L	1	6/28/2016 2:08:26 PM	25969
Cadmium	ND	0.00062	0.0020		mg/L	1	6/28/2016 2:08:26 PM	25969
Chromium	0.0029	0.0022	0.0060	J	mg/L	1	6/28/2016 2:08:26 PM	25969
Copper	ND	0.0051	0.0060		mg/L	1	6/28/2016 2:08:26 PM	25969
Iron	4.1	0.036	0.10	*	mg/L	5	6/28/2016 2:10:22 PM	25969
Manganese	1.7	0.0076	0.010	*	mg/L	5	6/28/2016 2:10:22 PM	25969
Silver	ND	0.0021	0.0050		mg/L	1	6/28/2016 2:08:26 PM	25969
Zinc	0.016	0.0039	0.010		mg/L	1	6/28/2016 2:08:26 PM	25969
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.010	0.00014	0.0010	*	mg/L	1	7/6/2016 9:16:25 PM	C35457

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-23
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 11:15:00 AM
Lab ID: 1606615-004
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00065	0.00017	0.00050		mg/L	1	7/6/2016 9:16:25 PM	C35457
Selenium	0.0090	0.0011	0.0050		mg/L	5	7/6/2016 9:25:40 PM	C35457
Uranium	0.0022	0.000051	0.00050		mg/L	1	7/6/2016 9:16:25 PM	C35457
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.013	0.0029	0.010	*	mg/L	10	6/29/2016 11:21:57 AM	25969
Lead	0.0094	0.000047	0.00050		mg/L	1	6/28/2016 7:42:25 PM	25969
Selenium	0.0094	0.0012	0.010	J	mg/L	10	6/29/2016 11:21:57 AM	25969
Uranium	0.0056	0.0000049	0.00050		mg/L	1	6/28/2016 7:42:25 PM	25969
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	6/28/2016 2:36:56 PM	26107
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	13	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Acenaphthylene	ND	12	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Aniline	ND	12	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Anthracene	ND	12	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Azobenzene	ND	13	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Benz(a)anthracene	ND	13	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Benzo(a)pyrene	ND	14	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Benzo(b)fluoranthene	ND	14	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Benzo(g,h,i)perylene	ND	13	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Benzo(k)fluoranthene	ND	15	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Benzoic acid	ND	13	100	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Benzyl alcohol	ND	15	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Bis(2-chloroethoxy)methane	ND	14	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Bis(2-chloroethyl)ether	ND	13	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Bis(2-chloroisopropyl)ether	ND	9.5	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Bis(2-ethylhexyl)phthalate	70	13	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
4-Bromophenyl phenyl ether	ND	13	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Butyl benzyl phthalate	ND	12	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Carbazole	ND	11	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
4-Chloro-3-methylphenol	ND	13	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
4-Chloroaniline	ND	14	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
2-Chloronaphthalene	ND	11	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
2-Chlorophenol	ND	11	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
4-Chlorophenyl phenyl ether	ND	13	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Chrysene	ND	14	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Di-n-butyl phthalate	ND	12	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Di-n-octyl phthalate	30	9.9	50	JD	µg/L	1	6/20/2016 11:57:31 PM	25862

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-23
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 11:15:00 AM
Lab ID: 1606615-004 **Matrix:** AQUEOUS **Received Date:** 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Dibenz(a,h)anthracene	ND	13	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Dibenzofuran	ND	12	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
1,2-Dichlorobenzene	ND	11	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
1,3-Dichlorobenzene	ND	11	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
1,4-Dichlorobenzene	ND	12	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
3,3´-Dichlorobenzidine	ND	12	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Diethyl phthalate	ND	14	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Dimethyl phthalate	ND	12	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
2,4-Dichlorophenol	ND	12	100	D	µg/L	1	6/20/2016 11:57:31 PM	25862
2,4-Dimethylphenol	ND	15	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
4,6-Dinitro-2-methylphenol	ND	9.0	100	D	µg/L	1	6/20/2016 11:57:31 PM	25862
2,4-Dinitrophenol	ND	14	100	D	µg/L	1	6/20/2016 11:57:31 PM	25862
2,4-Dinitrotoluene	ND	16	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
2,6-Dinitrotoluene	ND	14	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Fluoranthene	ND	13	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Fluorene	380	14	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Hexachlorobenzene	ND	13	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Hexachlorobutadiene	ND	11	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Hexachlorocyclopentadiene	ND	11	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Hexachloroethane	ND	12	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Indeno(1,2,3-cd)pyrene	ND	15	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Isophorone	ND	13	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
1-Methylnaphthalene	7800	150	500	D	µg/L	10	6/22/2016 1:39:09 AM	25862
2-Methylnaphthalene	5600	140	500	D	µg/L	10	6/22/2016 1:39:09 AM	25862
2-Methylphenol	ND	13	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
3+4-Methylphenol	ND	11	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
N-Nitrosodi-n-propylamine	ND	12	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
N-Nitrosodimethylamine	ND	11	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
N-Nitrosodiphenylamine	ND	12	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Naphthalene	2300	130	500	D	µg/L	10	6/22/2016 1:39:09 AM	25862
2-Nitroaniline	ND	14	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
3-Nitroaniline	ND	15	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
4-Nitroaniline	ND	13	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Nitrobenzene	ND	14	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
2-Nitrophenol	ND	12	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
4-Nitrophenol	ND	13	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Pentachlorophenol	ND	12	100	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Phenanthrene	720	13	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Phenol	ND	9.9	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-23
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 11:15:00 AM
Lab ID: 1606615-004
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Pyrene	190	15	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Pyridine	ND	11	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
1,2,4-Trichlorobenzene	ND	13	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
2,4,5-Trichlorophenol	ND	11	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
2,4,6-Trichlorophenol	ND	12	50	D	µg/L	1	6/20/2016 11:57:31 PM	25862
Surr: 2-Fluorophenol	16.8	0	15-123	D	%Rec	1	6/20/2016 11:57:31 PM	25862
Surr: Phenol-d5	14.9	0	4.13-124	D	%Rec	1	6/20/2016 11:57:31 PM	25862
Surr: 2,4,6-Tribromophenol	28.0	0	18.4-134	D	%Rec	1	6/20/2016 11:57:31 PM	25862
Surr: Nitrobenzene-d5	0	0	28.8-134	SD	%Rec	1	6/20/2016 11:57:31 PM	25862
Surr: 2-Fluorobiphenyl	45.9	0	35.9-125	D	%Rec	1	6/20/2016 11:57:31 PM	25862
Surr: 4-Terphenyl-d14	69.0	0	15-146	D	%Rec	1	6/20/2016 11:57:31 PM	25862
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	3200	4.8	50		µg/L	50	6/17/2016 8:27:00 PM	R35008
Toluene	980	1.2	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
Ethylbenzene	300	1.1	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
Methyl tert-butyl ether (MTBE)	1400	2.1	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
1,2,4-Trimethylbenzene	1500	5.5	50		µg/L	50	6/17/2016 8:27:00 PM	R35008
1,3,5-Trimethylbenzene	520	1.2	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
1,2-Dichloroethane (EDC)	ND	1.2	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
Naphthalene	280	0.93	20		µg/L	10	6/17/2016 8:51:00 PM	R35008
1-Methylnaphthalene	140	2.0	40		µg/L	10	6/17/2016 8:51:00 PM	R35008
2-Methylnaphthalene	190	1.6	40		µg/L	10	6/17/2016 8:51:00 PM	R35008
Acetone	ND	49	100		µg/L	10	6/17/2016 8:51:00 PM	R35008
Bromobenzene	ND	0.98	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
Bromodichloromethane	ND	1.4	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
Bromoform	ND	1.0	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
Bromomethane	ND	7.8	30		µg/L	10	6/17/2016 8:51:00 PM	R35008
2-Butanone	ND	7.4	100		µg/L	10	6/17/2016 8:51:00 PM	R35008
Carbon disulfide	ND	6.0	100		µg/L	10	6/17/2016 8:51:00 PM	R35008
Carbon Tetrachloride	ND	1.1	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
Chlorobenzene	ND	1.1	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
Chloroethane	ND	1.9	20		µg/L	10	6/17/2016 8:51:00 PM	R35008
Chloroform	ND	0.89	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
Chloromethane	ND	2.1	30		µg/L	10	6/17/2016 8:51:00 PM	R35008
2-Chlorotoluene	ND	4.0	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
4-Chlorotoluene	ND	1.3	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
cis-1,2-DCE	34	1.2	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	6/17/2016 8:51:00 PM	R35008

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-23
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 11:15:00 AM
Lab ID: 1606615-004
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	6/17/2016 8:51:00 PM	R35008
Dibromochloromethane	ND	0.87	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
Dibromomethane	ND	1.2	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
1,1-Dichloroethane	96	1.1	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
1,1-Dichloroethene	56	1.1	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
1,2-Dichloropropane	ND	1.1	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
1,3-Dichloropropane	ND	1.6	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
2,2-Dichloropropane	ND	1.7	20		µg/L	10	6/17/2016 8:51:00 PM	R35008
1,1-Dichloropropene	ND	1.3	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
Hexachlorobutadiene	ND	2.0	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
2-Hexanone	ND	8.4	100		µg/L	10	6/17/2016 8:51:00 PM	R35008
Isopropylbenzene	33	1.0	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
4-Isopropyltoluene	20	1.4	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	6/17/2016 8:51:00 PM	R35008
Methylene Chloride	ND	1.9	30		µg/L	10	6/17/2016 8:51:00 PM	R35008
n-Butylbenzene	74	1.6	30		µg/L	10	6/17/2016 8:51:00 PM	R35008
n-Propylbenzene	65	1.3	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
sec-Butylbenzene	22	1.2	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
Styrene	ND	1.1	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
tert-Butylbenzene	ND	1.2	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	6/17/2016 8:51:00 PM	R35008
Tetrachloroethene (PCE)	1.5	1.5	10	J	µg/L	10	6/17/2016 8:51:00 PM	R35008
trans-1,2-DCE	ND	4.0	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
1,1,1-Trichloroethane	16	0.91	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
Trichloroethene (TCE)	4.3	1.8	10	J	µg/L	10	6/17/2016 8:51:00 PM	R35008
Trichlorofluoromethane	ND	2.0	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	6/17/2016 8:51:00 PM	R35008
Vinyl chloride	ND	2.0	10		µg/L	10	6/17/2016 8:51:00 PM	R35008
Xylenes, Total	6100	18	75		µg/L	50	6/17/2016 8:27:00 PM	R35008
Surr: 1,2-Dichloroethane-d4	89.7	0	70-130		%Rec	10	6/17/2016 8:51:00 PM	R35008

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-23
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 11:15:00 AM
Lab ID: 1606615-004
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	10	6/17/2016 8:51:00 PM	R35008
Surr: Dibromofluoromethane	91.5	0	70-130		%Rec	10	6/17/2016 8:51:00 PM	R35008
Surr: Toluene-d8	97.6	0	70-130		%Rec	10	6/17/2016 8:51:00 PM	R35008

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: PW-4
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 3:30:00 PM
Lab ID: 1606615-005
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.014	0.0013	0.0020		mg/L	1	6/28/2016 6:39:30 PM	B35265
Cadmium	ND	0.00075	0.0020		mg/L	1	6/28/2016 6:39:30 PM	B35265
Calcium	190	1.3	5.0		mg/L	5	6/28/2016 6:41:33 PM	B35265
Chromium	ND	0.0018	0.0060		mg/L	1	6/28/2016 6:39:30 PM	B35265
Copper	ND	0.0040	0.0060		mg/L	1	6/28/2016 6:39:30 PM	B35265
Iron	0.11	0.0091	0.020		mg/L	1	6/28/2016 6:39:30 PM	B35265
Magnesium	40	0.013	1.0		mg/L	1	6/28/2016 6:39:30 PM	B35265
Manganese	0.0012	0.00032	0.0020	J	mg/L	1	6/28/2016 6:39:30 PM	B35265
Potassium	1.1	0.18	1.0		mg/L	1	6/28/2016 6:39:30 PM	B35265
Silver	ND	0.0028	0.0050		mg/L	1	6/28/2016 6:39:30 PM	B35265
Sodium	16	0.096	1.0		mg/L	1	6/28/2016 6:39:30 PM	B35265
Zinc	ND	0.0028	0.010		mg/L	1	6/28/2016 6:39:30 PM	B35265
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.014	0.0011	0.0020		mg/L	1	6/28/2016 2:12:22 PM	25969
Cadmium	ND	0.00062	0.0020		mg/L	1	6/28/2016 2:12:22 PM	25969
Chromium	ND	0.0022	0.0060		mg/L	1	6/28/2016 2:12:22 PM	25969
Copper	ND	0.0051	0.0060		mg/L	1	6/28/2016 2:12:22 PM	25969
Iron	0.26	0.0072	0.020		mg/L	1	6/28/2016 2:12:22 PM	25969
Manganese	0.0025	0.0015	0.0020		mg/L	1	6/28/2016 2:12:22 PM	25969
Silver	ND	0.0021	0.0050		mg/L	1	6/28/2016 2:12:22 PM	25969
Zinc	ND	0.0039	0.010		mg/L	1	6/28/2016 2:12:22 PM	25969
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0030	0.00014	0.0010		mg/L	1	7/6/2016 9:31:47 PM	C35457
Lead	ND	0.00017	0.00050		mg/L	1	7/6/2016 9:31:47 PM	C35457
Selenium	0.0017	0.00021	0.0010		mg/L	1	7/6/2016 9:31:47 PM	C35457
Uranium	0.0016	0.000051	0.00050		mg/L	1	7/6/2016 9:31:47 PM	C35457
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0036	0.00029	0.0010		mg/L	1	6/28/2016 7:45:26 PM	25969
Lead	ND	0.000047	0.00050		mg/L	1	6/28/2016 7:45:26 PM	25969
Selenium	0.0013	0.00062	0.0050	J	mg/L	5	6/29/2016 11:24:58 AM	25969
Uranium	0.0016	0.0000049	0.00050		mg/L	1	6/28/2016 7:45:26 PM	25969
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	6/28/2016 2:38:56 PM	26107
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Aniline	ND	2.4	10		µg/L	1	6/21/2016 12:25:29 AM	25862

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: PW-4
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 3:30:00 PM
Lab ID: 1606615-005
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 12:25:29 AM	25862
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Bis(2-ethylhexyl)phthalate	3.8	2.6	10	J	µg/L	1	6/21/2016 12:25:29 AM	25862
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Carbazole	ND	2.3	10		µg/L	1	6/21/2016 12:25:29 AM	25862
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 12:25:29 AM	25862
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 12:25:29 AM	25862
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 12:25:29 AM	25862
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 12:25:29 AM	25862
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Di-n-octyl phthalate	5.4	2.0	10	J	µg/L	1	6/21/2016 12:25:29 AM	25862
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 12:25:29 AM	25862
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 12:25:29 AM	25862
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 12:25:29 AM	25862
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 12:25:29 AM	25862
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 12:25:29 AM	25862
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 12:25:29 AM	25862
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/21/2016 12:25:29 AM	25862
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 12:25:29 AM	25862
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 12:25:29 AM	25862
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 12:25:29 AM	25862
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 12:25:29 AM	25862

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: PW-4
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 3:30:00 PM
Lab ID: 1606615-005
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Fluorene	ND	2.7	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 12:25:29 AM	25862
1-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 12:25:29 AM	25862
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 12:25:29 AM	25862
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 12:25:29 AM	25862
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/21/2016 12:25:29 AM	25862
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 12:25:29 AM	25862
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 12:25:29 AM	25862
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Naphthalene	ND	2.6	10		µg/L	1	6/21/2016 12:25:29 AM	25862
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 12:25:29 AM	25862
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 12:25:29 AM	25862
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 12:25:29 AM	25862
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 12:25:29 AM	25862
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 12:25:29 AM	25862
Phenanthrene	ND	2.6	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Phenol	ND	2.0	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 12:25:29 AM	25862
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 12:25:29 AM	25862
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 12:25:29 AM	25862
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 12:25:29 AM	25862
Surr: 2-Fluorophenol	43.3	0	15-123		%Rec	1	6/21/2016 12:25:29 AM	25862
Surr: Phenol-d5	36.7	0	4.13-124		%Rec	1	6/21/2016 12:25:29 AM	25862
Surr: 2,4,6-Tribromophenol	65.5	0	18.4-134		%Rec	1	6/21/2016 12:25:29 AM	25862
Surr: Nitrobenzene-d5	77.8	0	28.8-134		%Rec	1	6/21/2016 12:25:29 AM	25862
Surr: 2-Fluorobiphenyl	77.2	0	35.9-125		%Rec	1	6/21/2016 12:25:29 AM	25862
Surr: 4-Terphenyl-d14	59.6	0	15-146		%Rec	1	6/21/2016 12:25:29 AM	25862
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
Toluene	ND	0.12	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: PW-4
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 3:30:00 PM
Lab ID: 1606615-005
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
1,2,4-Trimethylbenzene	0.45	0.11	1.0	J	µg/L	1	6/17/2016 9:14:00 PM	R35008
1,3,5-Trimethylbenzene	0.31	0.12	1.0	J	µg/L	1	6/17/2016 9:14:00 PM	R35008
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
Naphthalene	0.48	0.093	2.0	J	µg/L	1	6/17/2016 9:14:00 PM	R35008
1-Methylnaphthalene	0.72	0.20	4.0	J	µg/L	1	6/17/2016 9:14:00 PM	R35008
2-Methylnaphthalene	0.83	0.16	4.0	J	µg/L	1	6/17/2016 9:14:00 PM	R35008
Acetone	ND	4.9	10		µg/L	1	6/17/2016 9:14:00 PM	R35008
Bromobenzene	ND	0.098	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
Bromoform	ND	0.10	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
Bromomethane	ND	0.78	3.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
2-Butanone	ND	0.74	10		µg/L	1	6/17/2016 9:14:00 PM	R35008
Carbon disulfide	ND	0.60	10		µg/L	1	6/17/2016 9:14:00 PM	R35008
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
Chloroethane	ND	0.19	2.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
Chloroform	ND	0.089	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
Chloromethane	ND	0.21	3.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
Dibromomethane	ND	0.12	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
2-Hexanone	ND	0.84	10		µg/L	1	6/17/2016 9:14:00 PM	R35008

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: PW-4
Project: 2016 2nd QTR MKTF/PW-4
Collection Date: 6/10/2016 3:30:00 PM
Lab ID: 1606615-005
Matrix: AQUEOUS
Received Date: 6/11/2016 8:54:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/17/2016 9:14:00 PM	R35008
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
Styrene	ND	0.11	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/17/2016 9:14:00 PM	R35008
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/17/2016 9:14:00 PM	R35008
Surr: 1,2-Dichloroethane-d4	91.1	0	70-130		%Rec	1	6/17/2016 9:14:00 PM	R35008
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	6/17/2016 9:14:00 PM	R35008
Surr: Dibromofluoromethane	92.9	0	70-130		%Rec	1	6/17/2016 9:14:00 PM	R35008
Surr: Toluene-d8	96.9	0	70-130		%Rec	1	6/17/2016 9:14:00 PM	R35008

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Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 160616039
Project Name: 1606615

Analytical Results Report

Sample Number	160616039-001	**Sampling Date**	6/10/2016	**Date/Time Received**	6/16/2016 12:30 PM
Client Sample ID	1606615-005E / PW-4	**Sampling Time**	3:30 PM		
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	6/21/2016	MER	EPA 335.4	

Authorized Signature

John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 160616039
Project Name: 1606615

Analytical Results Report

Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.516	mg/L	0.5	103.2	90-110	6/21/2016	6/21/2016

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
160617014-001	Cyanide	ND	0.490	mg/L	0.5	98.0	90-110	6/21/2016	6/21/2016

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	0.481	mg/L	0.5	96.2	1.9	0-20	6/21/2016	6/21/2016

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/L	0.01	6/21/2016	6/21/2016

AR	Acceptable Range
ND	Not Detected
PQL	Practical Quantitation Limit
RPD	Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013;NV:ID00013; OR:ID200001-002; WA:C585
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B35265**	RunNo: **35265**
Prep Date:	Analysis Date: **6/28/2016**	SeqNo: **1090637** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B35265**	RunNo: **35265**
Prep Date:	Analysis Date: **6/28/2016**	SeqNo: **1090638** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.3	85	115			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			
Calcium	50	1.0	50.00	0	99.8	85	115			
Chromium	0.49	0.0060	0.5000	0	98.9	85	115			
Copper	0.49	0.0060	0.5000	0	97.5	85	115			
Iron	0.48	0.020	0.5000	0	96.1	85	115			
Magnesium	51	1.0	50.00	0	102	85	115			
Manganese	0.48	0.0020	0.5000	0	97.0	85	115			
Potassium	49	1.0	50.00	0	98.3	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			
Sodium	50	1.0	50.00	0	100	85	115			
Zinc	0.49	0.010	0.5000	0	98.3	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B35265**	RunNo: **35265**
Prep Date:	Analysis Date: **6/28/2016**	SeqNo: **1090639** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0022	0.0020	0.002000	0	112	50	150			
Cadmium	0.0021	0.0020	0.002000	0	104	50	150			
Calcium	0.51	1.0	0.5000	0	103	50	150			J
Chromium	0.0063	0.0060	0.006000	0	105	50	150			

Qualifiers:

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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B35265**	RunNo: **35265**
Prep Date:	Analysis Date: **6/28/2016**	SeqNo: **1090639** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0062	0.0060	0.006000	0	104	50	150			
Iron	0.016	0.020	0.02000	0	77.9	50	150			J
Magnesium	0.53	1.0	0.5000	0	106	50	150			J
Manganese	0.0019	0.0020	0.002000	0	95.5	50	150			J
Potassium	0.45	1.0	0.5000	0	89.1	50	150			J
Silver	0.0048	0.0050	0.005000	0	96.8	50	150			J
Sodium	0.52	1.0	0.5000	0	104	50	150			J
Zinc	0.0053	0.010	0.005000	0	106	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID **MB-25969**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **25969**	RunNo: **35085**
Prep Date: **6/21/2016**	Analysis Date: **6/22/2016**	SeqNo: **1085152** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-25969**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **25969**	RunNo: **35085**
Prep Date: **6/21/2016**	Analysis Date: **6/22/2016**	SeqNo: **1085153** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.9	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.2	85	115			
Chromium	0.48	0.0060	0.5000	0	95.7	85	115			
Copper	0.48	0.0060	0.5000	0	95.2	85	115			
Iron	0.47	0.020	0.5000	0	94.8	85	115			
Manganese	0.47	0.0020	0.5000	0	94.1	85	115			
Silver	0.098	0.0050	0.1000	0	98.3	85	115			
Zinc	0.47	0.010	0.5000	0	93.7	85	115			

Sample ID **LLLCS-25969**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **25969**	RunNo: **35085**
Prep Date: **6/21/2016**	Analysis Date: **6/22/2016**	SeqNo: **1085154** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0022	0.0020	0.002000	0	108	50	150			
Cadmium	0.0014	0.0020	0.002000	0	67.5	50	150			J
Chromium	0.0058	0.0060	0.006000	0	96.7	50	150			J
Copper	0.0071	0.0060	0.006000	0	118	50	150			
Iron	0.017	0.020	0.02000	0	86.2	50	150			J
Manganese	0.0021	0.0020	0.002000	0	105	50	150			
Silver	0.0049	0.0050	0.005000	0	98.4	50	150			J
Zinc	0.0049	0.010	0.005000	0	98.8	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C35457**	RunNo: **35457**
Prep Date:	Analysis Date: **7/6/2016**	SeqNo: **1098044** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	92.9	85	115			
Lead	0.012	0.00050	0.01250	0	92.8	85	115			
Selenium	0.024	0.0010	0.02500	0	94.4	85	115			
Uranium	0.012	0.00050	0.01250	0	93.7	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C35457**	RunNo: **35457**
Prep Date:	Analysis Date: **7/6/2016**	SeqNo: **1098046** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	103	50	150			
Lead	0.00047	0.00050	0.0005000	0	94.1	50	150			J
Selenium	0.0012	0.0010	0.001000	0	116	50	150			
Uranium	0.00047	0.00050	0.0005000	0	93.3	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C35457**	RunNo: **35457**
Prep Date:	Analysis Date: **7/6/2016**	SeqNo: **1098049** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	0.00023	0.0010								J
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID	**MB-25969**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**25969**	RunNo:	**35099**					
Prep Date:	**6/21/2016**	Analysis Date:	**6/22/2016**	SeqNo:	**1085405**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-25969**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**25969**	RunNo:	**35099**					
Prep Date:	**6/21/2016**	Analysis Date:	**6/22/2016**	SeqNo:	**1085406**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.9	85	115			
Lead	0.012	0.00050	0.01250	0	94.7	85	115			
Selenium	0.024	0.0010	0.02500	0	95.4	85	115			
Uranium	0.013	0.00050	0.01250	0	102	85	115			

Sample ID	**MSLLLCS-25969**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**25969**	RunNo:	**35099**					
Prep Date:	**6/21/2016**	Analysis Date:	**6/22/2016**	SeqNo:	**1085407**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	106	50	150			
Lead	0.00048	0.00050	0.0005000	0	96.3	50	150			J
Selenium	0.00096	0.0010	0.001000	0	95.7	50	150			J
Uranium	0.00052	0.00050	0.0005000	0	104	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID	**MB-26107**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**26107**	RunNo:	**35280**					
Prep Date:	**6/27/2016**	Analysis Date:	**6/28/2016**	SeqNo:	**1091051**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-26107**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**26107**	RunNo:	**35280**					
Prep Date:	**6/27/2016**	Analysis Date:	**6/28/2016**	SeqNo:	**1091052**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.4	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **AR34887**	RunNo: **34887**
Prep Date:	Analysis Date: **6/13/2016**	SeqNo: **1077666** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **AR34887**	RunNo: **34887**
Prep Date:	Analysis Date: **6/13/2016**	SeqNo: **1077667** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Chloride	4.8	0.50	5.000	0	95.8	90	110			
Bromide	2.5	0.10	2.500	0	98.1	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.3	90	110			
Sulfate	9.6	0.50	10.00	0	96.4	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	98.7	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R34930**	RunNo: **34930**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078891** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	0.14	0.50								J
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R34930**	RunNo: **34930**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078892** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	105	90	110			
Chloride	5.0	0.50	5.000	0	99.4	90	110			
Bromide	2.5	0.10	2.500	0	101	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	101	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R34930**	RunNo: **34930**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078892** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	10	0.50	10.00	0	99.9	90	110			
Nitrate+Nitrite as N	3.6	0.20	3.500	0	102	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A35338**	RunNo: **35338**
Prep Date:	Analysis Date: **6/29/2016**	SeqNo: **1093234** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A35338**	RunNo: **35338**
Prep Date:	Analysis Date: **6/29/2016**	SeqNo: **1093235** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.1	0.50	5.000	0	102	90	110			
Sulfate	10	0.50	10.00	0	104	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

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WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID	**MB-25857**	SampType:	**MBLK**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**PBW**	Batch ID:	**25857**	RunNo:	**34956**					
Prep Date:	**6/15/2016**	Analysis Date:	**6/15/2016**	SeqNo:	**1080029**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID	**LCS-25857**	SampType:	**LCS**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**LCSW**	Batch ID:	**25857**	RunNo:	**34956**					
Prep Date:	**6/15/2016**	Analysis Date:	**6/15/2016**	SeqNo:	**1080030**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.090	0.010	0.1000	0	90.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID **LCS-25809**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **25809**	RunNo: **34862**
Prep Date: **6/13/2016**	Analysis Date: **6/13/2016**	SeqNo: **1077098** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.4	71.3	139			
Surr: DNOP	0.50		0.5000		99.0	70	141			

Sample ID **MB-25809**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **25809**	RunNo: **34862**
Prep Date: **6/13/2016**	Analysis Date: **6/13/2016**	SeqNo: **1077099** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		112	70	141			

Sample ID **LCS-25865**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **25865**	RunNo: **34924**
Prep Date: **6/15/2016**	Analysis Date: **6/15/2016**	SeqNo: **1079784** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.2	1.0	5.000	0	105	71.3	139			
Surr: DNOP	0.51		0.5000		102	70	141			

Sample ID **MB-25865**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **25865**	RunNo: **34924**
Prep Date: **6/15/2016**	Analysis Date: **6/15/2016**	SeqNo: **1079785** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		110	70	141			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **A34904**	RunNo: **34904**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078014** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	21		20.00		103	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **A34904**	RunNo: **34904**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078015** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.45	0.050	0.5000	0	90.8	80	120			
Surr: BFB	23		20.00		113	66.4	120			

Sample ID **1606615-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-2**	Batch ID: **A34904**	RunNo: **34904**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078022** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	7.6	0.25	2.500	5.199	95.9	70	130			
Surr: BFB	130		100.0		134	66.4	120			S

Sample ID **1606615-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-2**	Batch ID: **A34904**	RunNo: **34904**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078023** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	7.6	0.25	2.500	5.199	95.0	70	130	0.290	20	
Surr: BFB	140		100.0		136	66.4	120	0	0	S

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **B34963**	RunNo: **34963**
Prep Date:	Analysis Date: **6/16/2016**	SeqNo: **1080612** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	22		20.00		109	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **B34963**	RunNo: **34963**
Prep Date:	Analysis Date: **6/16/2016**	SeqNo: **1080615** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **B34963**	RunNo: **34963**
Prep Date:	Analysis Date: **6/16/2016**	SeqNo: **1080615** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.42	0.050	0.5000	0	83.7	80	120			
Surr: BFB	24		20.00		119	66.4	120			

Sample ID **1606615-004AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-23**	Batch ID: **B34963**	RunNo: **34963**
Prep Date:	Analysis Date: **6/16/2016**	SeqNo: **1080618** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	57	2.5	25.00	38.24	73.1	70	130			
Surr: BFB	1300		1000		128	66.4	120			S

Sample ID **1606615-004AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-23**	Batch ID: **B34963**	RunNo: **34963**
Prep Date:	Analysis Date: **6/16/2016**	SeqNo: **1080619** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	55	2.5	25.00	38.24	67.4	70	130	2.58	20	S
Surr: BFB	1300		1000		127	66.4	120	0	0	S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R35008**	RunNo: **35008**
Prep Date:	Analysis Date: **6/17/2016**	SeqNo: **1082049** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	16	1.0	20.00	0	78.1	70	130			
Toluene	16	1.0	20.00	0	79.8	70	130			
Chlorobenzene	16	1.0	20.00	0	77.8	70	130			
1,1-Dichloroethene	15	1.0	20.00	0	74.2	70	130			
Trichloroethene (TCE)	15	1.0	20.00	0	74.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.3		10.00		92.8	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R35008**	RunNo: **35008**
Prep Date:	Analysis Date: **6/17/2016**	SeqNo: **1082050** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R35008**	RunNo: **35008**
Prep Date:	Analysis Date: **6/17/2016**	SeqNo: **1082050** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R35008**	RunNo: **35008**
Prep Date:	Analysis Date: **6/17/2016**	SeqNo: **1082050** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.8		10.00		87.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.0	70	130			
Surr: Toluene-d8	9.8		10.00		98.1	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID **mb-25862**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **25862**	RunNo: **35016**
Prep Date: **6/15/2016**	Analysis Date: **6/20/2016**	SeqNo: **1082703** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	6.6	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	2.8	10								J
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID **mb-25862**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **25862**	RunNo: **35016**
Prep Date: **6/15/2016**	Analysis Date: **6/20/2016**	SeqNo: **1082703** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	110		200.0		55.3	15	123			
Surr: Phenol-d5	100		200.0		50.6	4.13	124			
Surr: 2,4,6-Tribromophenol	140		200.0		71.0	18.4	134			
Surr: Nitrobenzene-d5	74		100.0		74.1	28.8	134			
Surr: 2-Fluorobiphenyl	70		100.0		69.7	35.9	125			
Surr: 4-Terphenyl-d14	84		100.0		83.7	15	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID **lcs-25862**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **25862**	RunNo: **35016**
Prep Date: **6/15/2016**	Analysis Date: **6/20/2016**	SeqNo: **1082704** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	66.8	35	113			
4-Chloro-3-methylphenol	130	10	200.0	0	64.5	40.7	114			
2-Chlorophenol	130	10	200.0	0	65.3	37.6	113			
1,4-Dichlorobenzene	53	10	100.0	0	53.0	37.7	106			
2,4-Dinitrotoluene	69	10	100.0	0	69.0	37	91			
N-Nitrosodi-n-propylamine	70	10	100.0	0	70.1	45.4	105			
4-Nitrophenol	71	10	200.0	0	35.6	33.4	104			
Pentachlorophenol	100	20	200.0	0	51.9	29.5	94.9			
Phenol	100	10	200.0	0	49.8	30.6	119			
Pyrene	72	10	100.0	0	72.1	26.2	120			
1,2,4-Trichlorobenzene	63	10	100.0	0	62.7	39.9	125			
Surr: 2-Fluorophenol	100		200.0		51.8	15	123			
Surr: Phenol-d5	100		200.0		49.8	4.13	124			
Surr: 2,4,6-Tribromophenol	130		200.0		63.6	18.4	134			
Surr: Nitrobenzene-d5	68		100.0		67.6	28.8	134			
Surr: 2-Fluorobiphenyl	64		100.0		63.6	35.9	125			
Surr: 4-Terphenyl-d14	77		100.0		76.7	15	146			

Sample ID **mb-25832**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **25832**	RunNo: **35052**
Prep Date: **6/14/2016**	Analysis Date: **6/21/2016**	SeqNo: **1083880** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	6.4	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	3.5	10								J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID **mb-25832**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **25832**	RunNo: **35052**
Prep Date: **6/14/2016**	Analysis Date: **6/21/2016**	SeqNo: **1083880** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	5.0	10								J
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	4.2	10								J
Diethyl phthalate	ND	10								
Dimethyl phthalate	4.4	10								J
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	4.6	20								J
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID **mb-25832**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **25832**	RunNo: **35052**
Prep Date: **6/14/2016**	Analysis Date: **6/21/2016**	SeqNo: **1083880** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	100		200.0		52.4	15	123			
Surr: Phenol-d5	95		200.0		47.6	4.13	124			
Surr: 2,4,6-Tribromophenol	160		200.0		81.2	18.4	134			
Surr: Nitrobenzene-d5	61		100.0		60.7	28.8	134			
Surr: 2-Fluorobiphenyl	56		100.0		56.3	35.9	125			
Surr: 4-Terphenyl-d14	110		100.0		108	15	146			

Sample ID **lcs-25832**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **25832**	RunNo: **35052**
Prep Date: **6/14/2016**	Analysis Date: **6/21/2016**	SeqNo: **1083881** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	68	10	100.0	0	67.5	35	113			
4-Chloro-3-methylphenol	150	10	200.0	0	76.6	40.7	114			
2-Chlorophenol	140	10	200.0	0	71.1	37.6	113			
1,4-Dichlorobenzene	53	10	100.0	0	53.3	37.7	106			
2,4-Dinitrotoluene	69	10	100.0	0	69.2	37	91			
N-Nitrosodi-n-propylamine	67	10	100.0	0	66.9	45.4	105			
4-Nitrophenol	110	10	200.0	0	57.2	33.4	104			
Pentachlorophenol	130	20	200.0	0	66.4	29.5	94.9			
Phenol	110	10	200.0	0	56.4	30.6	119			
Pyrene	74	10	100.0	0	73.7	26.2	120			
1,2,4-Trichlorobenzene	57	10	100.0	0	57.3	39.9	125			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606615**

26-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2nd QTR MKTF/PW-4

Sample ID	**lcs-25832**	SampType:	**LCS**	TestCode:	**EPA Method 8270C: Semivolatiles**
Client ID:	**LCSW**	Batch ID:	**25832**	RunNo:	**35052**
Prep Date:	**6/14/2016**	Analysis Date:	**6/21/2016**	SeqNo:	**1083881** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	110		200.0		57.4	15	123			
Surr: Phenol-d5	110		200.0		54.5	4.13	124			
Surr: 2,4,6-Tribromophenol	150		200.0		72.8	18.4	134			
Surr: Nitrobenzene-d5	68		100.0		68.4	28.8	134			
Surr: 2-Fluorobiphenyl	62		100.0		62.4	35.9	125			
Surr: 4-Terphenyl-d14	89		100.0		88.8	15	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1606615 RcptNo: 1

Received by/date: CM 06/11/16

Logged By: Anne Thorne 6/11/2016 8:54:00 AM Anne Thorne

Completed By: Anne Thorne 6/13/2016 Anne Thorne

Reviewed By: JA 06/13/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 14 (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.8	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING ROAD, GALLUP, NM 87301

Phone #: 505-722-3833

Email or Fax#: 505-863-0930

QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation) AT06/13/16

Accreditation: ☐ NELAP ☐ Other ☐ EDD (Type)

Turn-Around Time: X Standard ☐ Rush

Project Name: 2016 2nd QTR MKTF / PW-4

Project Manager: C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON / G VIGIL

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.8

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1606615	8260+MTBE	8015D (DRO/GRO/MRO)	8270 + Phenols	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	Major Cations/Anions	504.1	CYANIDE	06/13/16	Air Bubbles (Y or N)
6/10/2016	1450	AQUEOUS	MKTF-2	MISC	MISC	-001	X	X	X	X	X	X	X			
6/10/2016	1300	AQUEOUS	MKTF-33	MISC	MISC	-002	X	X	X	X	X	X				
6/10/2016	1320	AQUEOUS	MKTF-22	MISC	MISC	-003	X	X	X	X	X	X				
6/10/2016	1115	AQUEOUS	MKTF-23	MISC	MISC	-004	X	X	X	X	X	X				
6/10/2016	1530	AQUEOUS	PW-4	MISC	MISC	-005	X		X	X	X			X		

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
6/11/16	0854			06/11/16	0854	
Date:	Time:	Relinquished by:	Received by:	Date	Time	

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 27, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 2ND QTR (MKTF) OrderNo.: 1606621

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 13 sample(s) on 6/10/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 7:00:00 AM
Lab ID: 1606621-001
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Toluene	ND	0.12	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Naphthalene	ND	0.093	2.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Acetone	ND	4.9	10		µg/L	1	6/17/2016 10:01:00 PM	R35008
Bromobenzene	ND	0.098	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Bromoform	ND	0.10	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Bromomethane	ND	0.78	3.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
2-Butanone	ND	0.74	10		µg/L	1	6/17/2016 10:01:00 PM	R35008
Carbon disulfide	ND	0.60	10		µg/L	1	6/17/2016 10:01:00 PM	R35008
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Chloroethane	ND	0.19	2.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Chloroform	ND	0.089	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Chloromethane	ND	0.21	3.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Dibromomethane	ND	0.12	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/17/2016 10:01:00 PM	R35008

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 7:00:00 AM
Lab ID: 1606621-001 **Matrix:** AQUEOUS **Received Date:** 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
2-Hexanone	ND	0.84	10		µg/L	1	6/17/2016 10:01:00 PM	R35008
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/17/2016 10:01:00 PM	R35008
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Styrene	ND	0.11	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/17/2016 10:01:00 PM	R35008
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/17/2016 10:01:00 PM	R35008
Surr: 1,2-Dichloroethane-d4	83.9	0	70-130		%Rec	1	6/17/2016 10:01:00 PM	R35008
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	6/17/2016 10:01:00 PM	R35008
Surr: Dibromofluoromethane	93.7	0	70-130		%Rec	1	6/17/2016 10:01:00 PM	R35008
Surr: Toluene-d8	102	0	70-130		%Rec	1	6/17/2016 10:01:00 PM	R35008

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2016 2ND QTR (MKTF)
Collection Date:
Lab ID: 1606621-002 **Matrix:** AQUEOUS **Received Date:** 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/16/2016 2:35:14 AM	A34934
Surr: BFB	111	0	66.4-120		%Rec	1	6/16/2016 2:35:14 AM	A34934
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Toluene	ND	0.12	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Naphthalene	ND	0.093	2.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Acetone	ND	4.9	10		µg/L	1	6/20/2016 4:22:00 PM	R35014
Bromobenzene	ND	0.098	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Bromoform	ND	0.10	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Bromomethane	ND	0.78	3.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
2-Butanone	ND	0.74	10		µg/L	1	6/20/2016 4:22:00 PM	R35014
Carbon disulfide	ND	0.60	10		µg/L	1	6/20/2016 4:22:00 PM	R35014
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Chloroethane	ND	0.19	2.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Chloroform	ND	0.089	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Chloromethane	ND	0.21	3.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Dibromomethane	ND	0.12	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2016 2ND QTR (MKTF)
Collection Date:
Lab ID: 1606621-002
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
2-Hexanone	ND	0.84	10		µg/L	1	6/20/2016 4:22:00 PM	R35014
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/20/2016 4:22:00 PM	R35014
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Styrene	ND	0.11	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/20/2016 4:22:00 PM	R35014
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/20/2016 4:22:00 PM	R35014
Surr: 1,2-Dichloroethane-d4	92.8	0	70-130		%Rec	1	6/20/2016 4:22:00 PM	R35014
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	6/20/2016 4:22:00 PM	R35014
Surr: Dibromofluoromethane	98.1	0	70-130		%Rec	1	6/20/2016 4:22:00 PM	R35014
Surr: Toluene-d8	97.6	0	70-130		%Rec	1	6/20/2016 4:22:00 PM	R35014

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-26
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 7:45:00 AM
Lab ID: 1606621-003
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	0.0045	0.0033	0.010	J	µg/L	1	6/15/2016 4:31:43 PM	25858
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/13/2016 9:41:20 PM	25809
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 9:41:20 PM	25809
Surr: DNOP	118	0	70-141		%Rec	1	6/13/2016 9:41:20 PM	25809
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	1.5	0.13	0.25		mg/L	5	6/16/2016 2:58:32 AM	A34934
Surr: BFB	115	0	66.4-120		%Rec	5	6/16/2016 2:58:32 AM	A34934
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.15	0.023	0.10		mg/L	1	6/13/2016 7:24:59 PM	R34886
Chloride	2300	5.5	100		mg/L	200	6/30/2016 2:18:37 AM	B35338
Bromide	0.82	0.032	0.10		mg/L	1	6/13/2016 7:24:59 PM	R34886
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/13/2016 7:24:59 PM	R34886
Sulfate	230	1.3	10		mg/L	20	6/13/2016 7:37:23 PM	R34886
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/14/2016 12:47:41 AM	R34886
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.074	0.0013	0.0020		mg/L	1	6/24/2016 2:50:06 PM	D35153
Cadmium	ND	0.00075	0.0020		mg/L	1	6/24/2016 2:50:06 PM	D35153
Calcium	300	1.3	5.0		mg/L	5	6/24/2016 2:52:06 PM	D35153
Chromium	ND	0.0018	0.0060		mg/L	1	6/24/2016 2:50:06 PM	D35153
Copper	ND	0.0040	0.0060		mg/L	1	6/24/2016 2:50:06 PM	D35153
Iron	0.48	0.0091	0.020	*	mg/L	1	6/24/2016 2:50:06 PM	D35153
Magnesium	46	0.013	1.0		mg/L	1	6/24/2016 2:50:06 PM	D35153
Manganese	0.70	0.00032	0.0020	*	mg/L	1	6/24/2016 2:50:06 PM	D35153
Potassium	4.7	0.18	1.0		mg/L	1	6/24/2016 2:50:06 PM	D35153
Silver	ND	0.0028	0.0050		mg/L	1	6/24/2016 2:50:06 PM	D35153
Sodium	1300	1.9	20		mg/L	20	6/28/2016 4:26:54 PM	A35265
Zinc	0.0040	0.0028	0.010	J	mg/L	1	6/24/2016 2:50:06 PM	D35153
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.75	0.0011	0.0020		mg/L	1	6/20/2016 6:31:01 PM	25917
Cadmium	ND	0.00062	0.0020		mg/L	1	6/20/2016 6:31:01 PM	25917
Chromium	0.011	0.0022	0.0060		mg/L	1	6/24/2016 4:15:18 PM	25917
Copper	0.028	0.0051	0.0060		mg/L	1	6/20/2016 6:31:01 PM	25917
Iron	20	0.36	1.0	*	mg/L	50	6/24/2016 4:18:57 PM	25917
Manganese	1.6	0.0076	0.010	*	mg/L	5	6/24/2016 4:17:12 PM	25917
Silver	ND	0.0021	0.0050		mg/L	1	6/20/2016 6:31:01 PM	25917
Zinc	0.073	0.0039	0.010		mg/L	1	6/24/2016 4:15:18 PM	25917

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-26
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 7:45:00 AM
Lab ID: 1606621-003
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0094	0.0028	0.020	J	mg/L	20	6/30/2016 8:35:25 PM	B35378
Lead	0.00096	0.00017	0.00050		mg/L	1	6/29/2016 8:05:52 PM	B35346
Selenium	0.033	0.0042	0.020		mg/L	20	6/30/2016 8:35:25 PM	B35378
Uranium	0.085	0.00026	0.0025	*	mg/L	5	6/30/2016 8:30:17 PM	B35378
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0050	0.00029	0.0010		mg/L	1	6/21/2016 7:26:45 PM	25917
Lead	0.030	0.00024	0.0025	*	mg/L	5	6/27/2016 7:45:09 PM	25917
Selenium	0.0061	0.0012	0.010	J	mg/L	10	6/27/2016 7:48:10 PM	25917
Uranium	0.099	0.000025	0.0025	*	mg/L	5	6/27/2016 7:45:09 PM	25917
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00021	0.000053	0.00020		mg/L	1	6/24/2016 10:36:52 AM	26032
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Aniline	ND	2.4	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 1:01:42 PM	25862
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Bis(2-ethylhexyl)phthalate	3.9	2.6	10	J	µg/L	1	6/21/2016 1:01:42 PM	25862
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Carbazole	ND	2.3	10		µg/L	1	6/21/2016 1:01:42 PM	25862
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 1:01:42 PM	25862
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 1:01:42 PM	25862
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 1:01:42 PM	25862
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 1:01:42 PM	25862
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 1:01:42 PM	25862

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-26
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 7:45:00 AM
Lab ID: 1606621-003 **Matrix:** AQUEOUS **Received Date:** 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Di-n-octyl phthalate	5.2	2.0	10	J	µg/L	1	6/21/2016 1:01:42 PM	25862
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 1:01:42 PM	25862
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 1:01:42 PM	25862
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 1:01:42 PM	25862
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 1:01:42 PM	25862
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	6/21/2016 1:01:42 PM	25862
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 1:01:42 PM	25862
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/21/2016 1:01:42 PM	25862
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 1:01:42 PM	25862
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 1:01:42 PM	25862
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 1:01:42 PM	25862
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Fluorene	ND	2.7	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 1:01:42 PM	25862
1-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 1:01:42 PM	25862
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 1:01:42 PM	25862
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 1:01:42 PM	25862
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/21/2016 1:01:42 PM	25862
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 1:01:42 PM	25862
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 1:01:42 PM	25862
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Naphthalene	ND	2.6	10		µg/L	1	6/21/2016 1:01:42 PM	25862
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 1:01:42 PM	25862
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 1:01:42 PM	25862
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 1:01:42 PM	25862
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 1:01:42 PM	25862
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 1:01:42 PM	25862
Phenanthrene	ND	2.6	10		µg/L	1	6/21/2016 1:01:42 PM	25862

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-26
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 7:45:00 AM
Lab ID: 1606621-003
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Phenol	ND	2.0	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 1:01:42 PM	25862
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 1:01:42 PM	25862
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 1:01:42 PM	25862
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 1:01:42 PM	25862
Surr: 2-Fluorophenol	17.1	0	15-123		%Rec	1	6/21/2016 1:01:42 PM	25862
Surr: Phenol-d5	20.5	0	4.13-124		%Rec	1	6/21/2016 1:01:42 PM	25862
Surr: 2,4,6-Tribromophenol	20.2	0	18.4-134		%Rec	1	6/21/2016 1:01:42 PM	25862
Surr: Nitrobenzene-d5	95.0	0	28.8-134		%Rec	1	6/21/2016 1:01:42 PM	25862
Surr: 2-Fluorobiphenyl	84.5	0	35.9-125		%Rec	1	6/21/2016 1:01:42 PM	25862
Surr: 4-Terphenyl-d14	61.3	0	15-146		%Rec	1	6/21/2016 1:01:42 PM	25862
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	330	0.48	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
Toluene	19	0.59	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
Ethylbenzene	3.6	0.56	5.0	J	µg/L	5	6/20/2016 4:46:00 PM	R35014
Methyl tert-butyl ether (MTBE)	82	1.1	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
1,2,4-Trimethylbenzene	1.6	0.55	5.0	J	µg/L	5	6/20/2016 4:46:00 PM	R35014
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
1,2-Dichloroethane (EDC)	12	0.58	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
Naphthalene	ND	0.46	10		µg/L	5	6/20/2016 4:46:00 PM	R35014
1-Methylnaphthalene	ND	1.0	20		µg/L	5	6/20/2016 4:46:00 PM	R35014
2-Methylnaphthalene	ND	0.79	20		µg/L	5	6/20/2016 4:46:00 PM	R35014
Acetone	ND	25	50		µg/L	5	6/20/2016 4:46:00 PM	R35014
Bromobenzene	ND	0.49	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
Bromodichloromethane	ND	0.70	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
Bromoform	ND	0.51	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
Bromomethane	ND	3.9	15		µg/L	5	6/20/2016 4:46:00 PM	R35014
2-Butanone	ND	3.7	50		µg/L	5	6/20/2016 4:46:00 PM	R35014
Carbon disulfide	ND	3.0	50		µg/L	5	6/20/2016 4:46:00 PM	R35014
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
Chlorobenzene	ND	0.57	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
Chloroethane	1.6	0.96	10	J	µg/L	5	6/20/2016 4:46:00 PM	R35014
Chloroform	ND	0.44	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
Chloromethane	ND	1.1	15		µg/L	5	6/20/2016 4:46:00 PM	R35014
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
cis-1,2-DCE	4.0	0.62	5.0	J	µg/L	5	6/20/2016 4:46:00 PM	R35014

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-26
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 7:45:00 AM
Lab ID: 1606621-003
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	6/20/2016 4:46:00 PM	R35014
Dibromochloromethane	ND	0.43	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
Dibromomethane	ND	0.60	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
1,1-Dichloroethane	61	0.54	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
1,1-Dichloroethene	68	0.54	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
2,2-Dichloropropane	ND	0.83	10		µg/L	5	6/20/2016 4:46:00 PM	R35014
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
2-Hexanone	ND	4.2	50		µg/L	5	6/20/2016 4:46:00 PM	R35014
Isopropylbenzene	2.2	0.52	5.0	J	µg/L	5	6/20/2016 4:46:00 PM	R35014
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	6/20/2016 4:46:00 PM	R35014
Methylene Chloride	ND	0.94	15		µg/L	5	6/20/2016 4:46:00 PM	R35014
n-Butylbenzene	ND	0.80	15		µg/L	5	6/20/2016 4:46:00 PM	R35014
n-Propylbenzene	1.5	0.66	5.0	J	µg/L	5	6/20/2016 4:46:00 PM	R35014
sec-Butylbenzene	ND	0.62	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
Styrene	ND	0.55	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	6/20/2016 4:46:00 PM	R35014
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
1,1,1-Trichloroethane	1.2	0.46	5.0	J	µg/L	5	6/20/2016 4:46:00 PM	R35014
1,1,2-Trichloroethane	1.5	0.64	5.0	J	µg/L	5	6/20/2016 4:46:00 PM	R35014
Trichloroethene (TCE)	3.1	0.88	5.0	J	µg/L	5	6/20/2016 4:46:00 PM	R35014
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	6/20/2016 4:46:00 PM	R35014
Vinyl chloride	8.6	0.98	5.0		µg/L	5	6/20/2016 4:46:00 PM	R35014
Xylenes, Total	7.7	1.8	7.5		µg/L	5	6/20/2016 4:46:00 PM	R35014

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-26
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 7:45:00 AM
Lab ID: 1606621-003
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 1,2-Dichloroethane-d4	94.1	0	70-130		%Rec	5	6/20/2016 4:46:00 PM	R35014
Surr: 4-Bromofluorobenzene	99.9	0	70-130		%Rec	5	6/20/2016 4:46:00 PM	R35014
Surr: Dibromofluoromethane	98.9	0	70-130		%Rec	5	6/20/2016 4:46:00 PM	R35014
Surr: Toluene-d8	97.4	0	70-130		%Rec	5	6/20/2016 4:46:00 PM	R35014

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 7:55:00 AM
Lab ID: 1606621-004
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	6/15/2016 5:17:23 PM	25858
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	0.89	0.69	1.0	J	mg/L	1	6/13/2016 10:03:14 PM	25809
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 10:03:14 PM	25809
Surr: DNOP	119	0	70-141		%Rec	1	6/13/2016 10:03:14 PM	25809
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	13	0.51	1.0		mg/L	20	6/16/2016 3:21:47 AM	A34934
Surr: BFB	131	0	66.4-120	S	%Rec	20	6/16/2016 3:21:47 AM	A34934
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.18	0.023	0.10		mg/L	1	6/13/2016 7:49:48 PM	R34886
Chloride	680	1.4	25		mg/L	50	6/30/2016 2:31:01 AM	B35338
Bromide	ND	0.032	0.10		mg/L	1	6/13/2016 7:49:48 PM	R34886
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/13/2016 7:49:48 PM	R34886
Sulfate	35	0.064	0.50		mg/L	1	6/13/2016 7:49:48 PM	R34886
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/14/2016 1:00:06 AM	R34886
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.32	0.0013	0.0020		mg/L	1	6/24/2016 2:54:00 PM	D35153
Cadmium	ND	0.00075	0.0020		mg/L	1	6/24/2016 2:54:00 PM	D35153
Calcium	130	1.3	5.0		mg/L	5	6/24/2016 2:56:01 PM	D35153
Chromium	ND	0.0018	0.0060		mg/L	1	6/24/2016 2:54:00 PM	D35153
Copper	ND	0.0040	0.0060		mg/L	1	6/24/2016 2:54:00 PM	D35153
Iron	0.47	0.0091	0.020	*	mg/L	1	6/24/2016 2:54:00 PM	D35153
Magnesium	24	0.013	1.0		mg/L	1	6/24/2016 2:54:00 PM	D35153
Manganese	2.9	0.0016	0.010	*	mg/L	5	6/24/2016 2:56:01 PM	D35153
Potassium	1.2	0.18	1.0		mg/L	1	6/24/2016 2:54:00 PM	D35153
Silver	ND	0.0028	0.0050		mg/L	1	6/24/2016 2:54:00 PM	D35153
Sodium	590	0.96	10		mg/L	10	6/28/2016 4:28:50 PM	A35265
Zinc	ND	0.0028	0.010		mg/L	1	6/24/2016 2:54:00 PM	D35153
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	1.6	0.0053	0.010		mg/L	5	6/20/2016 6:36:27 PM	25917
Cadmium	ND	0.00062	0.0020		mg/L	1	6/20/2016 6:34:38 PM	25917
Chromium	0.013	0.0022	0.0060		mg/L	1	6/24/2016 4:26:30 PM	25917
Copper	0.034	0.0051	0.0060		mg/L	1	6/20/2016 6:34:38 PM	25917
Iron	15	0.14	0.40	*	mg/L	20	6/24/2016 4:28:22 PM	25917
Manganese	5.6	0.030	0.040	*	mg/L	20	6/24/2016 4:28:22 PM	25917
Silver	ND	0.0021	0.0050		mg/L	1	6/20/2016 6:34:38 PM	25917
Zinc	0.038	0.0039	0.010		mg/L	1	6/24/2016 4:26:30 PM	25917

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 7:55:00 AM
Lab ID: 1606621-004
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0049	0.00014	0.0010		mg/L	1	6/29/2016 8:11:01 PM	B35346
Lead	0.0010	0.00017	0.00050		mg/L	1	6/29/2016 8:11:01 PM	B35346
Selenium	0.0096	0.00021	0.0010		mg/L	1	6/29/2016 8:11:01 PM	B35346
Uranium	0.030	0.00026	0.0025	*	mg/L	5	7/1/2016 5:41:38 PM	A35415
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0041	0.00029	0.0010		mg/L	1	6/21/2016 7:29:46 PM	25917
Lead	0.043	0.00024	0.0025	*	mg/L	5	6/27/2016 7:57:14 PM	25917
Selenium	0.0070	0.0012	0.010	J	mg/L	10	6/28/2016 6:39:06 PM	25917
Uranium	0.034	0.000025	0.0025	*	mg/L	5	6/27/2016 7:57:14 PM	25917
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00013	0.000053	0.00020	J	mg/L	1	6/24/2016 10:39:03 AM	26032
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Aniline	ND	2.4	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 2:45:00 AM	25862
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Bis(2-ethylhexyl)phthalate	3.7	2.6	10	J	µg/L	1	6/21/2016 2:45:00 AM	25862
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Carbazole	ND	2.3	10		µg/L	1	6/21/2016 2:45:00 AM	25862
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 2:45:00 AM	25862
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 2:45:00 AM	25862
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 2:45:00 AM	25862
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 2:45:00 AM	25862
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 2:45:00 AM	25862

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 7:55:00 AM
Lab ID: 1606621-004
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Di-n-octyl phthalate	5.4	2.0	10	J	µg/L	1	6/21/2016 2:45:00 AM	25862
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 2:45:00 AM	25862
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 2:45:00 AM	25862
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 2:45:00 AM	25862
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 2:45:00 AM	25862
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 2:45:00 AM	25862
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 2:45:00 AM	25862
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/21/2016 2:45:00 AM	25862
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 2:45:00 AM	25862
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 2:45:00 AM	25862
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 2:45:00 AM	25862
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Fluorene	ND	2.7	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 2:45:00 AM	25862
1-Methylnaphthalene	3.8	2.9	10	J	µg/L	1	6/21/2016 2:45:00 AM	25862
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 2:45:00 AM	25862
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 2:45:00 AM	25862
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/21/2016 2:45:00 AM	25862
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 2:45:00 AM	25862
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 2:45:00 AM	25862
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Naphthalene	3.7	2.6	10	J	µg/L	1	6/21/2016 2:45:00 AM	25862
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 2:45:00 AM	25862
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 2:45:00 AM	25862
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 2:45:00 AM	25862
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 2:45:00 AM	25862
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 2:45:00 AM	25862
Phenanthrene	ND	2.6	10		µg/L	1	6/21/2016 2:45:00 AM	25862

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 7:55:00 AM
Lab ID: 1606621-004
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Phenol	7.9	2.0	10	J	µg/L	1	6/21/2016 2:45:00 AM	25862
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 2:45:00 AM	25862
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 2:45:00 AM	25862
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 2:45:00 AM	25862
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 2:45:00 AM	25862
Surr: 2-Fluorophenol	50.2	0	15-123		%Rec	1	6/21/2016 2:45:00 AM	25862
Surr: Phenol-d5	44.1	0	4.13-124		%Rec	1	6/21/2016 2:45:00 AM	25862
Surr: 2,4,6-Tribromophenol	83.8	0	18.4-134		%Rec	1	6/21/2016 2:45:00 AM	25862
Surr: Nitrobenzene-d5	95.1	0	28.8-134		%Rec	1	6/21/2016 2:45:00 AM	25862
Surr: 2-Fluorobiphenyl	89.3	0	35.9-125		%Rec	1	6/21/2016 2:45:00 AM	25862
Surr: 4-Terphenyl-d14	80.2	0	15-146		%Rec	1	6/21/2016 2:45:00 AM	25862
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	990	4.8	50		µg/L	50	6/21/2016 2:59:00 PM	R35071
Toluene	13	1.2	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
Ethylbenzene	190	1.1	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
Methyl tert-butyl ether (MTBE)	480	2.1	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
1,2,4-Trimethylbenzene	21	1.1	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
1,3,5-Trimethylbenzene	1.7	1.2	10	J	µg/L	10	6/20/2016 5:58:00 PM	R35014
1,2-Dichloroethane (EDC)	ND	1.2	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
Naphthalene	19	0.93	20	J	µg/L	10	6/20/2016 5:58:00 PM	R35014
1-Methylnaphthalene	8.2	2.0	40	J	µg/L	10	6/20/2016 5:58:00 PM	R35014
2-Methylnaphthalene	ND	1.6	40		µg/L	10	6/20/2016 5:58:00 PM	R35014
Acetone	ND	49	100		µg/L	10	6/20/2016 5:58:00 PM	R35014
Bromobenzene	ND	0.98	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
Bromodichloromethane	ND	1.4	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
Bromoform	ND	1.0	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
Bromomethane	ND	7.8	30		µg/L	10	6/20/2016 5:58:00 PM	R35014
2-Butanone	ND	7.4	100		µg/L	10	6/20/2016 5:58:00 PM	R35014
Carbon disulfide	ND	6.0	100		µg/L	10	6/20/2016 5:58:00 PM	R35014
Carbon Tetrachloride	ND	1.1	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
Chlorobenzene	ND	1.1	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
Chloroethane	ND	1.9	20		µg/L	10	6/20/2016 5:58:00 PM	R35014
Chloroform	ND	0.89	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
Chloromethane	ND	2.1	30		µg/L	10	6/20/2016 5:58:00 PM	R35014
2-Chlorotoluene	ND	4.0	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
4-Chlorotoluene	ND	1.3	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
cis-1,2-DCE	100	1.2	10		µg/L	10	6/20/2016 5:58:00 PM	R35014

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 7:55:00 AM
Lab ID: 1606621-004
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	6/20/2016 5:58:00 PM	R35014
Dibromochloromethane	ND	0.87	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
Dibromomethane	ND	1.2	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
1,1-Dichloroethane	610	1.1	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
1,1-Dichloroethene	240	1.1	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
1,2-Dichloropropane	ND	1.1	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
1,3-Dichloropropane	ND	1.6	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
2,2-Dichloropropane	ND	1.7	20		µg/L	10	6/20/2016 5:58:00 PM	R35014
1,1-Dichloropropene	ND	1.3	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
Hexachlorobutadiene	ND	2.0	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
2-Hexanone	ND	8.4	100		µg/L	10	6/20/2016 5:58:00 PM	R35014
Isopropylbenzene	93	1.0	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
4-Isopropyltoluene	2.4	1.4	10	J	µg/L	10	6/20/2016 5:58:00 PM	R35014
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	6/20/2016 5:58:00 PM	R35014
Methylene Chloride	ND	1.9	30		µg/L	10	6/20/2016 5:58:00 PM	R35014
n-Butylbenzene	29	1.6	30	J	µg/L	10	6/20/2016 5:58:00 PM	R35014
n-Propylbenzene	86	1.3	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
sec-Butylbenzene	15	1.2	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
Styrene	ND	1.1	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
tert-Butylbenzene	ND	1.2	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	6/20/2016 5:58:00 PM	R35014
Tetrachloroethene (PCE)	6.0	1.5	10	J	µg/L	10	6/20/2016 5:58:00 PM	R35014
trans-1,2-DCE	ND	4.0	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
1,1,1-Trichloroethane	64	0.91	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
Trichloroethene (TCE)	64	1.8	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
Trichlorofluoromethane	ND	2.0	10		µg/L	10	6/20/2016 5:58:00 PM	R35014
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	6/20/2016 5:58:00 PM	R35014
Vinyl chloride	6.6	2.0	10	J	µg/L	10	6/20/2016 5:58:00 PM	R35014
Xylenes, Total	18	3.7	15		µg/L	10	6/20/2016 5:58:00 PM	R35014

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 7:55:00 AM
Lab ID: 1606621-004
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 1,2-Dichloroethane-d4	94.6	0	70-130		%Rec	10	6/20/2016 5:58:00 PM	R35014
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	10	6/20/2016 5:58:00 PM	R35014
Surr: Dibromofluoromethane	97.3	0	70-130		%Rec	10	6/20/2016 5:58:00 PM	R35014
Surr: Toluene-d8	101	0	70-130		%Rec	10	6/20/2016 5:58:00 PM	R35014

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-31
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 8:46:00 AM
Lab ID: 1606621-005
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	0.0067	0.0033	0.010	J	µg/L	1	6/15/2016 5:32:45 PM	25858
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/13/2016 10:25:15 PM	25809
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 10:25:15 PM	25809
Surr: DNOP	112	0	70-141		%Rec	1	6/13/2016 10:25:15 PM	25809
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.16	0.025	0.050		mg/L	1	6/16/2016 3:45:19 AM	A34934
Surr: BFB	118	0	66.4-120		%Rec	1	6/16/2016 3:45:19 AM	A34934
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.023	0.10		mg/L	1	6/13/2016 8:14:38 PM	R34886
Chloride	770	2.8	50		mg/L	100	6/30/2016 2:43:26 AM	B35338
Bromide	1.5	0.032	0.10		mg/L	1	6/13/2016 8:14:38 PM	R34886
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/13/2016 8:14:38 PM	R34886
Sulfate	69	1.3	10		mg/L	20	6/13/2016 8:27:03 PM	R34886
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/14/2016 1:12:31 AM	R34886
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.14	0.0013	0.0020		mg/L	1	6/24/2016 2:57:55 PM	D35153
Cadmium	ND	0.00075	0.0020		mg/L	1	6/24/2016 2:57:55 PM	D35153
Calcium	160	1.3	5.0		mg/L	5	6/24/2016 2:59:51 PM	D35153
Chromium	ND	0.0018	0.0060		mg/L	1	6/24/2016 2:57:55 PM	D35153
Copper	ND	0.0040	0.0060		mg/L	1	6/24/2016 2:57:55 PM	D35153
Iron	0.013	0.0091	0.020	J	mg/L	1	6/24/2016 2:57:55 PM	D35153
Magnesium	34	0.013	1.0		mg/L	1	6/24/2016 2:57:55 PM	D35153
Manganese	0.018	0.00032	0.0020		mg/L	1	6/24/2016 2:57:55 PM	D35153
Potassium	1.5	0.18	1.0		mg/L	1	6/24/2016 2:57:55 PM	D35153
Silver	ND	0.0028	0.0050		mg/L	1	6/24/2016 2:57:55 PM	D35153
Sodium	560	0.96	10		mg/L	10	6/28/2016 4:37:52 PM	A35265
Zinc	ND	0.0028	0.010		mg/L	1	6/24/2016 2:57:55 PM	D35153
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.33	0.0011	0.0020		mg/L	1	6/20/2016 6:38:15 PM	25917
Cadmium	ND	0.00062	0.0020		mg/L	1	6/20/2016 6:38:15 PM	25917
Chromium	0.0051	0.0022	0.0060	J	mg/L	1	6/24/2016 4:30:19 PM	25917
Copper	ND	0.0051	0.0060		mg/L	1	6/20/2016 6:38:15 PM	25917
Iron	4.8	0.072	0.20	*	mg/L	10	6/24/2016 4:32:04 PM	25917
Manganese	0.34	0.0015	0.0020	*	mg/L	1	6/24/2016 4:30:19 PM	25917
Silver	ND	0.0021	0.0050		mg/L	1	6/20/2016 6:38:15 PM	25917
Zinc	0.017	0.0039	0.010		mg/L	1	6/24/2016 4:30:19 PM	25917

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-31
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 8:46:00 AM
Lab ID: 1606621-005
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0043	0.00069	0.0050	J	mg/L	5	7/1/2016 5:44:42 PM	A35415
Lead	ND	0.00017	0.00050		mg/L	1	6/29/2016 8:16:09 PM	B35346
Selenium	0.014	0.0011	0.0050		mg/L	5	7/1/2016 5:44:42 PM	A35415
Uranium	0.046	0.00026	0.0025	*	mg/L	5	7/1/2016 5:44:42 PM	A35415
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0022	0.00029	0.0010		mg/L	1	6/21/2016 7:32:46 PM	25917
Lead	0.0084	0.000047	0.00050		mg/L	1	6/21/2016 7:32:46 PM	25917
Selenium	0.0076	0.0012	0.010	J	mg/L	10	6/28/2016 6:48:12 PM	25917
Uranium	0.046	0.000025	0.0025	*	mg/L	5	6/27/2016 8:00:15 PM	25917
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000082	0.000053	0.00020	J	mg/L	1	6/24/2016 10:41:09 AM	26032
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Aniline	ND	2.4	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 3:12:48 AM	25862
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Bis(2-ethylhexyl)phthalate	3.9	2.6	10	J	µg/L	1	6/21/2016 3:12:48 AM	25862
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Carbazole	ND	2.3	10		µg/L	1	6/21/2016 3:12:48 AM	25862
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 3:12:48 AM	25862
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 3:12:48 AM	25862
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 3:12:48 AM	25862
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 3:12:48 AM	25862
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 3:12:48 AM	25862

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-31
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 8:46:00 AM
Lab ID: 1606621-005
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Di-n-octyl phthalate	5.1	2.0	10	J	µg/L	1	6/21/2016 3:12:48 AM	25862
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 3:12:48 AM	25862
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 3:12:48 AM	25862
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 3:12:48 AM	25862
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 3:12:48 AM	25862
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 3:12:48 AM	25862
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 3:12:48 AM	25862
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/21/2016 3:12:48 AM	25862
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 3:12:48 AM	25862
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 3:12:48 AM	25862
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 3:12:48 AM	25862
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Fluorene	ND	2.7	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 3:12:48 AM	25862
1-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 3:12:48 AM	25862
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 3:12:48 AM	25862
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 3:12:48 AM	25862
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/21/2016 3:12:48 AM	25862
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 3:12:48 AM	25862
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 3:12:48 AM	25862
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Naphthalene	ND	2.6	10		µg/L	1	6/21/2016 3:12:48 AM	25862
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 3:12:48 AM	25862
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 3:12:48 AM	25862
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 3:12:48 AM	25862
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 3:12:48 AM	25862
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 3:12:48 AM	25862
Phenanthrene	ND	2.6	10		µg/L	1	6/21/2016 3:12:48 AM	25862

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-31
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 8:46:00 AM
Lab ID: 1606621-005 **Matrix:** AQUEOUS **Received Date:** 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Phenol	ND	2.0	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 3:12:48 AM	25862
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 3:12:48 AM	25862
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 3:12:48 AM	25862
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 3:12:48 AM	25862
Surr: 2-Fluorophenol	43.9	0	15-123		%Rec	1	6/21/2016 3:12:48 AM	25862
Surr: Phenol-d5	36.2	0	4.13-124		%Rec	1	6/21/2016 3:12:48 AM	25862
Surr: 2,4,6-Tribromophenol	66.8	0	18.4-134		%Rec	1	6/21/2016 3:12:48 AM	25862
Surr: Nitrobenzene-d5	101	0	28.8-134		%Rec	1	6/21/2016 3:12:48 AM	25862
Surr: 2-Fluorobiphenyl	81.2	0	35.9-125		%Rec	1	6/21/2016 3:12:48 AM	25862
Surr: 4-Terphenyl-d14	64.3	0	15-146		%Rec	1	6/21/2016 3:12:48 AM	25862
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	0.75	0.096	1.0	J	µg/L	1	6/20/2016 6:22:00 PM	R35014
Toluene	ND	0.12	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
Methyl tert-butyl ether (MTBE)	80	0.21	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1,2-Dichloroethane (EDC)	22	0.12	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
Naphthalene	ND	0.093	2.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
Acetone	ND	4.9	10		µg/L	1	6/20/2016 6:22:00 PM	R35014
Bromobenzene	ND	0.098	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
Bromoform	ND	0.10	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
Bromomethane	ND	0.78	3.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
2-Butanone	ND	0.74	10		µg/L	1	6/20/2016 6:22:00 PM	R35014
Carbon disulfide	ND	0.60	10		µg/L	1	6/20/2016 6:22:00 PM	R35014
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
Chloroethane	ND	0.19	2.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
Chloroform	ND	0.089	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
Chloromethane	ND	0.21	3.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
cis-1,2-DCE	2.0	0.12	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-31
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 8:46:00 AM
Lab ID: 1606621-005 **Matrix:** AQUEOUS **Received Date:** 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
Dibromomethane	ND	0.12	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1,1-Dichloroethane	37	0.11	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1,1-Dichloroethene	66	0.11	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
2-Hexanone	ND	0.84	10		µg/L	1	6/20/2016 6:22:00 PM	R35014
Isopropylbenzene	0.94	0.10	1.0	J	µg/L	1	6/20/2016 6:22:00 PM	R35014
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/20/2016 6:22:00 PM	R35014
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
n-Butylbenzene	0.26	0.16	3.0	J	µg/L	1	6/20/2016 6:22:00 PM	R35014
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
sec-Butylbenzene	0.42	0.12	1.0	J	µg/L	1	6/20/2016 6:22:00 PM	R35014
Styrene	ND	0.11	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1,1,1-Trichloroethane	5.5	0.091	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1,1,2-Trichloroethane	2.4	0.13	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
Trichloroethene (TCE)	4.0	0.18	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/20/2016 6:22:00 PM	R35014
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/20/2016 6:22:00 PM	R35014

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-31
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 8:46:00 AM
Lab ID: 1606621-005
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 1,2-Dichloroethane-d4	91.7	0	70-130		%Rec	1	6/20/2016 6:22:00 PM	R35014
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	6/20/2016 6:22:00 PM	R35014
Surr: Dibromofluoromethane	99.5	0	70-130		%Rec	1	6/20/2016 6:22:00 PM	R35014
Surr: Toluene-d8	98.6	0	70-130		%Rec	1	6/20/2016 6:22:00 PM	R35014

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-40
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 9:50:00 AM
Lab ID: 1606621-006
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/13/2016 10:47:10 PM	25809
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 10:47:10 PM	25809
Surr: DNOP	119	0	70-141		%Rec	1	6/13/2016 10:47:10 PM	25809
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/16/2016 4:08:51 AM	A34934
Surr: BFB	111	0	66.4-120		%Rec	1	6/16/2016 4:08:51 AM	A34934
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.45	2.0		mg/L	20	6/13/2016 8:51:53 PM	R34886
Chloride	5300	14	250		mg/L	500	7/6/2016 1:13:12 AM	R35434
Bromide	3.4	0.65	2.0		mg/L	20	6/13/2016 8:51:53 PM	R34886
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/13/2016 8:39:28 PM	R34886
Sulfate	390	1.3	10		mg/L	20	6/13/2016 8:51:53 PM	R34886
Nitrate+Nitrite as N	ND	1.8	4.0		mg/L	20	6/30/2016 5:59:38 PM	R35376
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.13	0.0013	0.0020		mg/L	1	6/24/2016 3:01:46 PM	D35153
Cadmium	ND	0.00075	0.0020		mg/L	1	6/24/2016 3:01:46 PM	D35153
Calcium	440	1.3	5.0		mg/L	5	6/24/2016 3:03:42 PM	D35153
Chromium	ND	0.0018	0.0060		mg/L	1	6/24/2016 3:01:46 PM	D35153
Copper	ND	0.0040	0.0060		mg/L	1	6/24/2016 3:01:46 PM	D35153
Iron	0.089	0.0091	0.020		mg/L	1	6/24/2016 3:01:46 PM	D35153
Magnesium	84	0.013	1.0		mg/L	1	6/24/2016 3:01:46 PM	D35153
Manganese	0.18	0.00032	0.0020	*	mg/L	1	6/24/2016 3:01:46 PM	D35153
Potassium	9.0	0.18	1.0		mg/L	1	6/24/2016 3:01:46 PM	D35153
Silver	ND	0.0028	0.0050		mg/L	1	6/24/2016 3:01:46 PM	D35153
Sodium	3000	4.8	50		mg/L	50	6/28/2016 4:39:48 PM	A35265
Zinc	ND	0.0028	0.010		mg/L	1	6/24/2016 3:01:46 PM	D35153
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.32	0.0011	0.0020		mg/L	1	6/20/2016 6:42:00 PM	25917
Cadmium	ND	0.00062	0.0020		mg/L	1	6/20/2016 6:42:00 PM	25917
Chromium	ND	0.0022	0.0060		mg/L	1	6/20/2016 6:42:00 PM	25917
Copper	ND	0.0051	0.0060		mg/L	1	6/20/2016 6:42:00 PM	25917
Iron	5.5	0.072	0.20	*	mg/L	10	6/24/2016 4:35:43 PM	25917
Manganese	0.31	0.0015	0.0020	*	mg/L	1	6/24/2016 4:34:01 PM	25917
Silver	ND	0.0021	0.0050		mg/L	1	6/20/2016 6:42:00 PM	25917
Zinc	0.022	0.0039	0.010		mg/L	1	6/24/2016 4:34:01 PM	25917
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	ND	0.0069	0.050		mg/L	50	7/1/2016 6:06:09 PM	A35415

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-40
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 9:50:00 AM
Lab ID: 1606621-006
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00084	0.0025		mg/L	5	7/1/2016 6:03:05 PM	A35415
Selenium	0.019	0.011	0.050	J	mg/L	50	7/1/2016 6:06:09 PM	A35415
Uranium	0.058	0.00026	0.0025	*	mg/L	5	7/1/2016 6:03:05 PM	A35415
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0031	0.0015	0.0050	J	mg/L	5	6/27/2016 8:03:15 PM	25917
Lead	0.0087	0.00024	0.0025		mg/L	5	6/27/2016 8:03:15 PM	25917
Selenium	0.0095	0.00062	0.0050		mg/L	5	6/27/2016 8:03:15 PM	25917
Uranium	0.058	0.000025	0.0025	*	mg/L	5	6/27/2016 8:03:15 PM	25917
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000096	0.000053	0.00020	J	mg/L	1	6/24/2016 10:43:16 AM	26032
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Aniline	ND	2.4	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 3:40:33 AM	25862
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Bis(2-ethylhexyl)phthalate	4.0	2.6	10	J	µg/L	1	6/21/2016 3:40:33 AM	25862
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Carbazole	ND	2.3	10		µg/L	1	6/21/2016 3:40:33 AM	25862
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 3:40:33 AM	25862
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 3:40:33 AM	25862
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 3:40:33 AM	25862
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 3:40:33 AM	25862
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Di-n-octyl phthalate	4.9	2.0	10	J	µg/L	1	6/21/2016 3:40:33 AM	25862

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
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Collection Date: 6/9/2016 9:50:00 AM
Lab ID: 1606621-006 **Matrix:** AQUEOUS **Received Date:** 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 3:40:33 AM	25862
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 3:40:33 AM	25862
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 3:40:33 AM	25862
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 3:40:33 AM	25862
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 3:40:33 AM	25862
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 3:40:33 AM	25862
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/21/2016 3:40:33 AM	25862
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 3:40:33 AM	25862
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 3:40:33 AM	25862
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 3:40:33 AM	25862
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Fluorene	ND	2.7	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 3:40:33 AM	25862
1-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 3:40:33 AM	25862
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 3:40:33 AM	25862
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 3:40:33 AM	25862
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/21/2016 3:40:33 AM	25862
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 3:40:33 AM	25862
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 3:40:33 AM	25862
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Naphthalene	ND	2.6	10		µg/L	1	6/21/2016 3:40:33 AM	25862
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 3:40:33 AM	25862
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 3:40:33 AM	25862
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 3:40:33 AM	25862
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 3:40:33 AM	25862
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 3:40:33 AM	25862
Phenanthrene	ND	2.6	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Phenol	ND	2.0	10		µg/L	1	6/21/2016 3:40:33 AM	25862

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Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 9:50:00 AM
Lab ID: 1606621-006
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 3:40:33 AM	25862
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 3:40:33 AM	25862
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 3:40:33 AM	25862
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 3:40:33 AM	25862
Surr: 2-Fluorophenol	43.9	0	15-123		%Rec	1	6/21/2016 3:40:33 AM	25862
Surr: Phenol-d5	38.0	0	4.13-124		%Rec	1	6/21/2016 3:40:33 AM	25862
Surr: 2,4,6-Tribromophenol	69.7	0	18.4-134		%Rec	1	6/21/2016 3:40:33 AM	25862
Surr: Nitrobenzene-d5	97.7	0	28.8-134		%Rec	1	6/21/2016 3:40:33 AM	25862
Surr: 2-Fluorobiphenyl	85.2	0	35.9-125		%Rec	1	6/21/2016 3:40:33 AM	25862
Surr: 4-Terphenyl-d14	63.4	0	15-146		%Rec	1	6/21/2016 3:40:33 AM	25862
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Toluene	ND	0.12	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Methyl tert-butyl ether (MTBE)	0.62	0.21	1.0	J	µg/L	1	6/20/2016 6:46:00 PM	R35014
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Naphthalene	ND	0.093	2.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Acetone	ND	4.9	10		µg/L	1	6/20/2016 6:46:00 PM	R35014
Bromobenzene	ND	0.098	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Bromoform	ND	0.10	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Bromomethane	ND	0.78	3.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
2-Butanone	ND	0.74	10		µg/L	1	6/20/2016 6:46:00 PM	R35014
Carbon disulfide	ND	0.60	10		µg/L	1	6/20/2016 6:46:00 PM	R35014
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Chloroethane	ND	0.19	2.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Chloroform	ND	0.089	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Chloromethane	ND	0.21	3.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Dibromomethane	ND	0.12	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
1,1-Dichloroethane	0.62	0.11	1.0	J	µg/L	1	6/20/2016 6:46:00 PM	R35014
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
2-Hexanone	ND	0.84	10		µg/L	1	6/20/2016 6:46:00 PM	R35014
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/20/2016 6:46:00 PM	R35014
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Styrene	ND	0.11	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/20/2016 6:46:00 PM	R35014
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/20/2016 6:46:00 PM	R35014
Surr: 1,2-Dichloroethane-d4	92.3	0	70-130		%Rec	1	6/20/2016 6:46:00 PM	R35014

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Lab ID: 1606621-006
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	6/20/2016 6:46:00 PM	R35014
Surr: Dibromofluoromethane	96.4	0	70-130		%Rec	1	6/20/2016 6:46:00 PM	R35014
Surr: Toluene-d8	96.8	0	70-130		%Rec	1	6/20/2016 6:46:00 PM	R35014

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-30
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 11:13:00 AM
Lab ID: 1606621-007
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	6/15/2016 5:48:04 PM	25858
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/13/2016 11:09:03 PM	25809
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 11:09:03 PM	25809
Surr: DNOP	112	0	70-141		%Rec	1	6/13/2016 11:09:03 PM	25809
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.095	0.025	0.050		mg/L	1	6/16/2016 4:32:22 AM	A34934
Surr: BFB	109	0	66.4-120		%Rec	1	6/16/2016 4:32:22 AM	A34934
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	1.3	0.023	0.10		mg/L	1	6/13/2016 9:04:17 PM	R34886
Chloride	890	2.8	50		mg/L	100	6/30/2016 3:08:15 AM	B35338
Bromide	1.3	0.032	0.10		mg/L	1	6/13/2016 9:04:17 PM	R34886
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/13/2016 9:04:17 PM	R34886
Sulfate	330	1.3	10		mg/L	20	6/13/2016 9:16:42 PM	R34886
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/14/2016 1:37:20 AM	R34886
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.040	0.0013	0.0020		mg/L	1	6/24/2016 3:11:13 PM	D35153
Cadmium	ND	0.00075	0.0020		mg/L	1	6/24/2016 3:11:13 PM	D35153
Calcium	88	0.26	1.0		mg/L	1	6/24/2016 3:11:13 PM	D35153
Chromium	ND	0.0018	0.0060		mg/L	1	6/24/2016 3:11:13 PM	D35153
Copper	ND	0.0040	0.0060		mg/L	1	6/24/2016 3:11:13 PM	D35153
Iron	0.016	0.0091	0.020	J	mg/L	1	6/24/2016 3:11:13 PM	D35153
Magnesium	17	0.013	1.0		mg/L	1	6/24/2016 3:11:13 PM	D35153
Manganese	0.0075	0.00032	0.0020		mg/L	1	6/24/2016 3:11:13 PM	D35153
Potassium	0.68	0.18	1.0	J	mg/L	1	6/24/2016 3:11:13 PM	D35153
Silver	ND	0.0028	0.0050		mg/L	1	6/24/2016 3:11:13 PM	D35153
Sodium	910	0.96	10		mg/L	10	6/28/2016 4:41:45 PM	A35265
Zinc	ND	0.0028	0.010		mg/L	1	6/24/2016 3:11:13 PM	D35153
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.83	0.0011	0.0020		mg/L	1	6/20/2016 6:53:50 PM	25917
Cadmium	ND	0.00062	0.0020		mg/L	1	6/20/2016 6:53:50 PM	25917
Chromium	0.0098	0.0022	0.0060		mg/L	1	6/24/2016 4:37:35 PM	25917
Copper	0.0066	0.0051	0.0060		mg/L	1	6/20/2016 6:53:50 PM	25917
Iron	13	0.14	0.40	*	mg/L	20	6/24/2016 4:41:17 PM	25917
Manganese	1.1	0.0076	0.010	*	mg/L	5	6/24/2016 4:39:25 PM	25917
Silver	ND	0.0021	0.0050		mg/L	1	6/20/2016 6:53:50 PM	25917
Zinc	0.039	0.0039	0.010		mg/L	1	6/24/2016 4:37:35 PM	25917

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Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0041	0.00069	0.0050	J	mg/L	5	7/1/2016 6:12:15 PM	A35415
Lead	ND	0.00017	0.00050		mg/L	1	7/1/2016 6:09:12 PM	A35415
Selenium	0.013	0.0011	0.0050		mg/L	5	7/1/2016 6:12:15 PM	A35415
Uranium	0.034	0.00026	0.0025	*	mg/L	5	7/1/2016 6:12:15 PM	A35415
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0033	0.00029	0.0010		mg/L	1	6/21/2016 7:38:47 PM	25917
Lead	0.022	0.000047	0.00050	*	mg/L	1	6/21/2016 7:38:47 PM	25917
Selenium	0.0069	0.0012	0.010	J	mg/L	10	6/28/2016 6:51:12 PM	25917
Uranium	0.035	0.000025	0.0025	*	mg/L	5	6/27/2016 8:06:16 PM	25917
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00010	0.000053	0.00020	J	mg/L	1	6/24/2016 10:45:24 AM	26032
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Aniline	ND	2.4	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 4:08:44 AM	25862
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Bis(2-ethylhexyl)phthalate	3.9	2.6	10	J	µg/L	1	6/21/2016 4:08:44 AM	25862
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Carbazole	ND	2.3	10		µg/L	1	6/21/2016 4:08:44 AM	25862
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 4:08:44 AM	25862
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 4:08:44 AM	25862
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 4:08:44 AM	25862
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 4:08:44 AM	25862
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 4:08:44 AM	25862

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Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Di-n-octyl phthalate	5.5	2.0	10	J	µg/L	1	6/21/2016 4:08:44 AM	25862
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 4:08:44 AM	25862
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 4:08:44 AM	25862
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 4:08:44 AM	25862
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 4:08:44 AM	25862
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 4:08:44 AM	25862
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 4:08:44 AM	25862
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/21/2016 4:08:44 AM	25862
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 4:08:44 AM	25862
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 4:08:44 AM	25862
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 4:08:44 AM	25862
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Fluorene	ND	2.7	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 4:08:44 AM	25862
1-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 4:08:44 AM	25862
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 4:08:44 AM	25862
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 4:08:44 AM	25862
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/21/2016 4:08:44 AM	25862
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 4:08:44 AM	25862
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 4:08:44 AM	25862
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Naphthalene	ND	2.6	10		µg/L	1	6/21/2016 4:08:44 AM	25862
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 4:08:44 AM	25862
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 4:08:44 AM	25862
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 4:08:44 AM	25862
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 4:08:44 AM	25862
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 4:08:44 AM	25862
Phenanthrene	ND	2.6	10		µg/L	1	6/21/2016 4:08:44 AM	25862

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Phenol	ND	2.0	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 4:08:44 AM	25862
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 4:08:44 AM	25862
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 4:08:44 AM	25862
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 4:08:44 AM	25862
Surr: 2-Fluorophenol	57.2	0	15-123		%Rec	1	6/21/2016 4:08:44 AM	25862
Surr: Phenol-d5	41.5	0	4.13-124		%Rec	1	6/21/2016 4:08:44 AM	25862
Surr: 2,4,6-Tribromophenol	83.0	0	18.4-134		%Rec	1	6/21/2016 4:08:44 AM	25862
Surr: Nitrobenzene-d5	79.4	0	28.8-134		%Rec	1	6/21/2016 4:08:44 AM	25862
Surr: 2-Fluorobiphenyl	75.2	0	35.9-125		%Rec	1	6/21/2016 4:08:44 AM	25862
Surr: 4-Terphenyl-d14	93.6	0	15-146		%Rec	1	6/21/2016 4:08:44 AM	25862
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Toluene	ND	0.12	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Methyl tert-butyl ether (MTBE)	3.6	0.21	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
1,2-Dichloroethane (EDC)	6.0	0.12	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Naphthalene	ND	0.093	2.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Acetone	ND	4.9	10		µg/L	1	6/20/2016 7:09:00 PM	R35014
Bromobenzene	ND	0.098	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Bromoform	ND	0.10	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Bromomethane	ND	0.78	3.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
2-Butanone	ND	0.74	10		µg/L	1	6/20/2016 7:09:00 PM	R35014
Carbon disulfide	ND	0.60	10		µg/L	1	6/20/2016 7:09:00 PM	R35014
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Chloroethane	ND	0.19	2.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Chloroform	ND	0.089	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Chloromethane	ND	0.21	3.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
cis-1,2-DCE	12	0.12	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Dibromomethane	ND	0.12	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
1,1-Dichloroethane	130	1.1	10		µg/L	10	6/21/2016 4:11:00 PM	R35071
1,1-Dichloroethene	10	0.11	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
2-Hexanone	ND	0.84	10		µg/L	1	6/20/2016 7:09:00 PM	R35014
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/20/2016 7:09:00 PM	R35014
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Styrene	ND	0.11	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Tetrachloroethene (PCE)	0.77	0.15	1.0	J	µg/L	1	6/20/2016 7:09:00 PM	R35014
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
1,1,1-Trichloroethane	4.1	0.091	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
1,1,2-Trichloroethane	1.2	0.13	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Trichloroethene (TCE)	8.8	0.18	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/20/2016 7:09:00 PM	R35014
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/20/2016 7:09:00 PM	R35014

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-30
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 11:13:00 AM
Lab ID: 1606621-007
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 1,2-Dichloroethane-d4	93.7	0	70-130		%Rec	1	6/20/2016 7:09:00 PM	R35014
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	1	6/20/2016 7:09:00 PM	R35014
Surr: Dibromofluoromethane	99.5	0	70-130		%Rec	1	6/20/2016 7:09:00 PM	R35014
Surr: Toluene-d8	96.0	0	70-130		%Rec	1	6/20/2016 7:09:00 PM	R35014

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 10:52:00 AM
Lab ID: 1606621-008
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	6/15/2016 6:03:23 PM	25858
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/13/2016 11:30:59 PM	25809
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 11:30:59 PM	25809
Surr: DNOP	114	0	70-141		%Rec	1	6/13/2016 11:30:59 PM	25809
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/16/2016 2:51:51 PM	B34963
Surr: BFB	111	0	66.4-120		%Rec	1	6/16/2016 2:51:51 PM	B34963
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	1.1	0.023	0.10		mg/L	1	6/14/2016 12:22:51 AM	R34886
Chloride	82	0.55	10		mg/L	20	6/14/2016 12:35:16 AM	R34886
Bromide	0.40	0.032	0.10		mg/L	1	6/14/2016 12:22:51 AM	R34886
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50		mg/L	1	6/14/2016 12:22:51 AM	R34886
Sulfate	650	1.3	10		mg/L	20	6/14/2016 12:35:16 AM	R34886
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/14/2016 1:49:45 AM	R34886
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.028	0.0013	0.0020		mg/L	1	6/24/2016 3:15:02 PM	D35153
Cadmium	ND	0.00075	0.0020		mg/L	1	6/24/2016 3:15:02 PM	D35153
Calcium	66	0.26	1.0		mg/L	1	6/24/2016 3:15:02 PM	D35153
Chromium	ND	0.0018	0.0060		mg/L	1	6/24/2016 3:15:02 PM	D35153
Copper	ND	0.0040	0.0060		mg/L	1	6/24/2016 3:15:02 PM	D35153
Iron	0.022	0.0091	0.020		mg/L	1	6/24/2016 3:15:02 PM	D35153
Magnesium	9.5	0.013	1.0		mg/L	1	6/24/2016 3:15:02 PM	D35153
Manganese	0.39	0.00032	0.0020	*	mg/L	1	6/24/2016 3:15:02 PM	D35153
Potassium	0.49	0.18	1.0	J	mg/L	1	6/24/2016 3:15:02 PM	D35153
Silver	ND	0.0028	0.0050		mg/L	1	6/24/2016 3:15:02 PM	D35153
Sodium	530	0.96	10		mg/L	10	6/28/2016 4:43:43 PM	A35265
Zinc	ND	0.0028	0.010		mg/L	1	6/24/2016 3:15:02 PM	D35153
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.076	0.0011	0.0020		mg/L	1	6/20/2016 6:57:30 PM	25917
Cadmium	ND	0.00062	0.0020		mg/L	1	6/20/2016 6:57:30 PM	25917
Chromium	ND	0.0022	0.0060		mg/L	1	6/20/2016 6:57:30 PM	25917
Copper	ND	0.0051	0.0060		mg/L	1	6/20/2016 6:57:30 PM	25917
Iron	1.5	0.036	0.10	*	mg/L	5	6/20/2016 6:59:10 PM	25917
Manganese	0.44	0.0015	0.0020	*	mg/L	1	6/24/2016 4:43:17 PM	25917
Silver	ND	0.0021	0.0050		mg/L	1	6/20/2016 6:57:30 PM	25917
Zinc	0.013	0.0039	0.010		mg/L	1	6/24/2016 4:43:17 PM	25917

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 10:52:00 AM
Lab ID: 1606621-008
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0021	0.00014	0.0010		mg/L	1	7/1/2016 6:27:34 PM	C35415
Lead	ND	0.00017	0.00050		mg/L	1	7/1/2016 6:27:34 PM	C35415
Selenium	0.0039	0.00021	0.0010		mg/L	1	7/1/2016 6:27:34 PM	C35415
Uranium	0.013	0.000051	0.00050		mg/L	1	7/1/2016 6:27:34 PM	C35415
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0013	0.00029	0.0010		mg/L	1	6/21/2016 7:41:48 PM	25917
Lead	0.00094	0.000047	0.00050		mg/L	1	6/21/2016 7:41:48 PM	25917
Selenium	0.0017	0.00062	0.0050	J	mg/L	5	6/27/2016 8:09:16 PM	25917
Uranium	0.012	0.0000049	0.00050		mg/L	1	6/21/2016 7:41:48 PM	25917
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000076	0.000053	0.00020	J	mg/L	1	6/24/2016 10:47:34 AM	26032
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Aniline	ND	2.4	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 4:37:01 AM	25862
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Bis(2-ethylhexyl)phthalate	4.2	2.6	10	J	µg/L	1	6/21/2016 4:37:01 AM	25862
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Carbazole	ND	2.3	10		µg/L	1	6/21/2016 4:37:01 AM	25862
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 4:37:01 AM	25862
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 4:37:01 AM	25862
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 4:37:01 AM	25862
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 4:37:01 AM	25862
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 4:37:01 AM	25862

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 10:52:00 AM
Lab ID: 1606621-008
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Di-n-octyl phthalate	4.9	2.0	10	J	µg/L	1	6/21/2016 4:37:01 AM	25862
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 4:37:01 AM	25862
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 4:37:01 AM	25862
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 4:37:01 AM	25862
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 4:37:01 AM	25862
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 4:37:01 AM	25862
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 4:37:01 AM	25862
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/21/2016 4:37:01 AM	25862
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 4:37:01 AM	25862
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 4:37:01 AM	25862
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 4:37:01 AM	25862
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Fluorene	ND	2.7	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 4:37:01 AM	25862
1-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 4:37:01 AM	25862
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 4:37:01 AM	25862
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 4:37:01 AM	25862
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/21/2016 4:37:01 AM	25862
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 4:37:01 AM	25862
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 4:37:01 AM	25862
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Naphthalene	ND	2.6	10		µg/L	1	6/21/2016 4:37:01 AM	25862
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 4:37:01 AM	25862
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 4:37:01 AM	25862
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 4:37:01 AM	25862
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 4:37:01 AM	25862
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 4:37:01 AM	25862
Phenanthrene	ND	2.6	10		µg/L	1	6/21/2016 4:37:01 AM	25862

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 10:52:00 AM
Lab ID: 1606621-008
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Phenol	ND	2.0	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 4:37:01 AM	25862
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 4:37:01 AM	25862
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 4:37:01 AM	25862
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 4:37:01 AM	25862
Surr: 2-Fluorophenol	76.0	0	15-123		%Rec	1	6/21/2016 4:37:01 AM	25862
Surr: Phenol-d5	59.2	0	4.13-124		%Rec	1	6/21/2016 4:37:01 AM	25862
Surr: 2,4,6-Tribromophenol	107	0	18.4-134		%Rec	1	6/21/2016 4:37:01 AM	25862
Surr: Nitrobenzene-d5	99.2	0	28.8-134		%Rec	1	6/21/2016 4:37:01 AM	25862
Surr: 2-Fluorobiphenyl	91.2	0	35.9-125		%Rec	1	6/21/2016 4:37:01 AM	25862
Surr: 4-Terphenyl-d14	102	0	15-146		%Rec	1	6/21/2016 4:37:01 AM	25862
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Toluene	ND	0.12	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Methyl tert-butyl ether (MTBE)	8.8	0.21	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Naphthalene	ND	0.093	2.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Acetone	ND	4.9	10		µg/L	1	6/20/2016 7:33:00 PM	R35014
Bromobenzene	ND	0.098	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Bromoform	ND	0.10	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Bromomethane	ND	0.78	3.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
2-Butanone	ND	0.74	10		µg/L	1	6/20/2016 7:33:00 PM	R35014
Carbon disulfide	ND	0.60	10		µg/L	1	6/20/2016 7:33:00 PM	R35014
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Chloroethane	ND	0.19	2.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Chloroform	ND	0.089	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Chloromethane	ND	0.21	3.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 10:52:00 AM
Lab ID: 1606621-008 **Matrix:** AQUEOUS **Received Date:** 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Dibromomethane	ND	0.12	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
2-Hexanone	ND	0.84	10		µg/L	1	6/20/2016 7:33:00 PM	R35014
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/20/2016 7:33:00 PM	R35014
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Styrene	ND	0.11	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/20/2016 7:33:00 PM	R35014
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/20/2016 7:33:00 PM	R35014

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 10:52:00 AM
Lab ID: 1606621-008
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 1,2-Dichloroethane-d4	93.6	0	70-130		%Rec	1	6/20/2016 7:33:00 PM	R35014
Surr: 4-Bromofluorobenzene	100	0	70-130		%Rec	1	6/20/2016 7:33:00 PM	R35014
Surr: Dibromofluoromethane	97.5	0	70-130		%Rec	1	6/20/2016 7:33:00 PM	R35014
Surr: Toluene-d8	97.2	0	70-130		%Rec	1	6/20/2016 7:33:00 PM	R35014

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 1:42:00 PM
Lab ID: 1606621-009
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/13/2016 11:52:55 PM	25809
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 11:52:55 PM	25809
Surr: DNOP	118	0	70-141		%Rec	1	6/13/2016 11:52:55 PM	25809
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/16/2016 3:15:21 PM	B34963
Surr: BFB	110	0	66.4-120		%Rec	1	6/16/2016 3:15:21 PM	B34963
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.29	0.023	0.10		mg/L	1	6/13/2016 9:53:57 PM	R34886
Chloride	610	1.4	25		mg/L	50	6/30/2016 3:33:04 AM	B35338
Bromide	0.64	0.032	0.10		mg/L	1	6/13/2016 9:53:57 PM	R34886
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/13/2016 9:53:57 PM	R34886
Sulfate	96	1.3	10		mg/L	20	6/13/2016 10:06:21 PM	R34886
Nitrate+Nitrite as N	3.6	0.42	1.0		mg/L	5	6/14/2016 2:02:09 AM	R34886
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.11	0.0013	0.0020		mg/L	1	6/24/2016 3:19:04 PM	D35153
Cadmium	ND	0.00075	0.0020		mg/L	1	6/24/2016 3:19:04 PM	D35153
Calcium	35	0.26	1.0		mg/L	1	6/24/2016 3:19:04 PM	D35153
Chromium	0.011	0.0018	0.0060		mg/L	1	6/24/2016 3:19:04 PM	D35153
Copper	ND	0.0040	0.0060		mg/L	1	6/24/2016 3:19:04 PM	D35153
Iron	0.045	0.0091	0.020		mg/L	1	6/24/2016 3:19:04 PM	D35153
Magnesium	1.3	0.013	1.0		mg/L	1	6/24/2016 3:19:04 PM	D35153
Manganese	0.0031	0.00032	0.0020		mg/L	1	6/24/2016 3:19:04 PM	D35153
Potassium	2.1	0.18	1.0		mg/L	1	6/24/2016 3:19:04 PM	D35153
Silver	ND	0.0028	0.0050		mg/L	1	6/24/2016 3:19:04 PM	D35153
Sodium	660	0.96	10		mg/L	10	6/28/2016 4:45:42 PM	A35265
Zinc	ND	0.0028	0.010		mg/L	1	6/24/2016 3:19:04 PM	D35153
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.25	0.0011	0.0020		mg/L	1	6/20/2016 7:01:04 PM	25917
Cadmium	ND	0.00062	0.0020		mg/L	1	6/20/2016 7:01:04 PM	25917
Chromium	0.016	0.0022	0.0060		mg/L	1	6/24/2016 4:51:05 PM	25917
Copper	ND	0.0051	0.0060		mg/L	1	6/20/2016 7:01:04 PM	25917
Iron	7.1	0.072	0.20	*	mg/L	10	6/24/2016 4:52:55 PM	25917
Manganese	0.28	0.0015	0.0020	*	mg/L	1	6/24/2016 4:51:05 PM	25917
Silver	ND	0.0021	0.0050		mg/L	1	6/20/2016 7:01:04 PM	25917
Zinc	0.030	0.0039	0.010		mg/L	1	6/24/2016 4:51:05 PM	25917
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0049	0.0014	0.010	J	mg/L	10	7/1/2016 6:42:55 PM	C35415

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 1:42:00 PM
Lab ID: 1606621-009
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00019	0.00017	0.00050	J	mg/L	1	7/1/2016 6:39:51 PM	C35415
Selenium	0.016	0.00021	0.0010		mg/L	1	7/1/2016 6:39:51 PM	C35415
Uranium	0.17	0.00051	0.0050	*	mg/L	10	7/1/2016 6:42:55 PM	C35415
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0045	0.0015	0.0050	J	mg/L	5	6/27/2016 8:12:17 PM	25917
Lead	0.0092	0.000047	0.00050		mg/L	1	6/21/2016 7:44:48 PM	25917
Selenium	0.013	0.0025	0.020	J	mg/L	20	6/27/2016 8:15:17 PM	25917
Uranium	0.17	0.000099	0.010	*	mg/L	20	6/27/2016 8:15:17 PM	25917
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000089	0.000053	0.00020	J	mg/L	1	6/24/2016 10:49:36 AM	26032
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Aniline	ND	2.4	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 5:05:14 AM	25862
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Bis(2-ethylhexyl)phthalate	ND	2.6	10		µg/L	1	6/21/2016 5:05:14 AM	25862
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Carbazole	ND	2.3	10		µg/L	1	6/21/2016 5:05:14 AM	25862
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 5:05:14 AM	25862
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 5:05:14 AM	25862
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 5:05:14 AM	25862
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 5:05:14 AM	25862
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Di-n-octyl phthalate	5.1	2.0	10	J	µg/L	1	6/21/2016 5:05:14 AM	25862

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 1:42:00 PM
Lab ID: 1606621-009
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 5:05:14 AM	25862
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 5:05:14 AM	25862
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 5:05:14 AM	25862
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 5:05:14 AM	25862
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 5:05:14 AM	25862
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 5:05:14 AM	25862
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/21/2016 5:05:14 AM	25862
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 5:05:14 AM	25862
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 5:05:14 AM	25862
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 5:05:14 AM	25862
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Fluorene	ND	2.7	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 5:05:14 AM	25862
1-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 5:05:14 AM	25862
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 5:05:14 AM	25862
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 5:05:14 AM	25862
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/21/2016 5:05:14 AM	25862
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 5:05:14 AM	25862
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 5:05:14 AM	25862
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Naphthalene	ND	2.6	10		µg/L	1	6/21/2016 5:05:14 AM	25862
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 5:05:14 AM	25862
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 5:05:14 AM	25862
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 5:05:14 AM	25862
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 5:05:14 AM	25862
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 5:05:14 AM	25862
Phenanthrene	ND	2.6	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Phenol	ND	2.0	10		µg/L	1	6/21/2016 5:05:14 AM	25862

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 1:42:00 PM
Lab ID: 1606621-009
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 5:05:14 AM	25862
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 5:05:14 AM	25862
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 5:05:14 AM	25862
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 5:05:14 AM	25862
Surr: 2-Fluorophenol	62.1	0	15-123		%Rec	1	6/21/2016 5:05:14 AM	25862
Surr: Phenol-d5	47.3	0	4.13-124		%Rec	1	6/21/2016 5:05:14 AM	25862
Surr: 2,4,6-Tribromophenol	88.1	0	18.4-134		%Rec	1	6/21/2016 5:05:14 AM	25862
Surr: Nitrobenzene-d5	87.6	0	28.8-134		%Rec	1	6/21/2016 5:05:14 AM	25862
Surr: 2-Fluorobiphenyl	73.0	0	35.9-125		%Rec	1	6/21/2016 5:05:14 AM	25862
Surr: 4-Terphenyl-d14	99.1	0	15-146		%Rec	1	6/21/2016 5:05:14 AM	25862
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Toluene	ND	0.12	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Naphthalene	ND	0.093	2.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Acetone	ND	4.9	10		µg/L	1	6/20/2016 7:56:00 PM	R35014
Bromobenzene	ND	0.098	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Bromoform	ND	0.10	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Bromomethane	ND	0.78	3.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
2-Butanone	ND	0.74	10		µg/L	1	6/20/2016 7:56:00 PM	R35014
Carbon disulfide	ND	0.60	10		µg/L	1	6/20/2016 7:56:00 PM	R35014
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Chloroethane	ND	0.19	2.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Chloroform	ND	0.089	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Chloromethane	ND	0.21	3.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 1:42:00 PM
Lab ID: 1606621-009
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Dibromomethane	ND	0.12	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
2-Hexanone	ND	0.84	10		µg/L	1	6/20/2016 7:56:00 PM	R35014
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/20/2016 7:56:00 PM	R35014
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Styrene	ND	0.11	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/20/2016 7:56:00 PM	R35014
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/20/2016 7:56:00 PM	R35014
Surr: 1,2-Dichloroethane-d4	96.3	0	70-130		%Rec	1	6/20/2016 7:56:00 PM	R35014

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 1:42:00 PM
Lab ID: 1606621-009
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	1	6/20/2016 7:56:00 PM	R35014
Surr: Dibromofluoromethane	101	0	70-130		%Rec	1	6/20/2016 7:56:00 PM	R35014
Surr: Toluene-d8	98.6	0	70-130		%Rec	1	6/20/2016 7:56:00 PM	R35014

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 2:20:00 PM
Lab ID: 1606621-010
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	6/15/2016 6:18:43 PM	25858
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/14/2016 12:14:43 AM	25809
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/14/2016 12:14:43 AM	25809
Surr: DNOP	116	0	70-141		%Rec	1	6/14/2016 12:14:43 AM	25809
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.81	0.025	0.050		mg/L	1	6/16/2016 3:38:52 PM	B34963
Surr: BFB	115	0	66.4-120		%Rec	1	6/16/2016 3:38:52 PM	B34963
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.28	0.023	0.10		mg/L	1	6/13/2016 10:18:46 PM	R34886
Chloride	520	1.4	25		mg/L	50	6/30/2016 3:45:28 AM	B35338
Bromide	1.4	0.032	0.10		mg/L	1	6/13/2016 10:18:46 PM	R34886
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/13/2016 10:18:46 PM	R34886
Sulfate	100	1.3	10		mg/L	20	6/13/2016 10:31:10 PM	R34886
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/14/2016 2:51:48 AM	R34886
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.064	0.0013	0.0020		mg/L	1	6/24/2016 3:23:03 PM	D35153
Cadmium	ND	0.00075	0.0020		mg/L	1	6/24/2016 3:23:03 PM	D35153
Calcium	32	0.26	1.0		mg/L	1	6/24/2016 3:23:03 PM	D35153
Chromium	ND	0.0018	0.0060		mg/L	1	6/24/2016 3:23:03 PM	D35153
Copper	ND	0.0040	0.0060		mg/L	1	6/24/2016 3:23:03 PM	D35153
Iron	0.099	0.0091	0.020		mg/L	1	6/24/2016 3:23:03 PM	D35153
Magnesium	6.5	0.013	1.0		mg/L	1	6/24/2016 3:23:03 PM	D35153
Manganese	0.082	0.00032	0.0020	*	mg/L	1	6/24/2016 3:23:03 PM	D35153
Potassium	0.91	0.18	1.0	J	mg/L	1	6/24/2016 3:23:03 PM	D35153
Silver	ND	0.0028	0.0050		mg/L	1	6/24/2016 3:23:03 PM	D35153
Sodium	670	0.96	10		mg/L	10	6/28/2016 4:47:30 PM	A35265
Zinc	ND	0.0028	0.010		mg/L	1	6/24/2016 3:23:03 PM	D35153
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.35	0.0011	0.0020		mg/L	1	6/20/2016 7:04:44 PM	25917
Cadmium	ND	0.00062	0.0020		mg/L	1	6/20/2016 7:04:44 PM	25917
Chromium	0.0072	0.0022	0.0060		mg/L	1	6/24/2016 4:54:49 PM	25917
Copper	ND	0.0051	0.0060		mg/L	1	6/20/2016 7:04:44 PM	25917
Iron	7.0	0.072	0.20	*	mg/L	10	6/24/2016 4:56:46 PM	25917
Manganese	0.40	0.0015	0.0020	*	mg/L	1	6/24/2016 4:54:49 PM	25917
Silver	ND	0.0021	0.0050		mg/L	1	6/20/2016 7:04:44 PM	25917
Zinc	0.036	0.0039	0.010		mg/L	1	6/24/2016 4:54:49 PM	25917

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 2:20:00 PM
Lab ID: 1606621-010
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0057	0.00014	0.0010		mg/L	1	7/1/2016 6:45:58 PM	C35415
Lead	0.00057	0.00017	0.00050		mg/L	1	7/1/2016 6:45:58 PM	C35415
Selenium	0.012	0.0011	0.0050		mg/L	5	7/1/2016 6:49:02 PM	C35415
Uranium	0.064	0.00026	0.0025	*	mg/L	5	7/1/2016 6:49:02 PM	C35415
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0042	0.00029	0.0010		mg/L	1	6/21/2016 7:53:53 PM	25917
Lead	0.010	0.000047	0.00050		mg/L	1	6/21/2016 7:53:53 PM	25917
Selenium	0.0072	0.0012	0.010	J	mg/L	10	6/28/2016 6:54:13 PM	25917
Uranium	0.066	0.000025	0.0025	*	mg/L	5	6/27/2016 8:18:18 PM	25917
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00012	0.000053	0.00020	J	mg/L	1	6/24/2016 10:51:39 AM	26032
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Aniline	ND	2.4	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 5:33:24 AM	25862
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Bis(2-ethylhexyl)phthalate	5.6	2.6	10	J	µg/L	1	6/21/2016 5:33:24 AM	25862
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Carbazole	ND	2.3	10		µg/L	1	6/21/2016 5:33:24 AM	25862
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 5:33:24 AM	25862
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 5:33:24 AM	25862
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 5:33:24 AM	25862
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 5:33:24 AM	25862
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 5:33:24 AM	25862

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 2:20:00 PM
Lab ID: 1606621-010 **Matrix:** AQUEOUS **Received Date:** 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Di-n-octyl phthalate	5.4	2.0	10	J	µg/L	1	6/21/2016 5:33:24 AM	25862
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 5:33:24 AM	25862
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 5:33:24 AM	25862
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 5:33:24 AM	25862
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 5:33:24 AM	25862
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 5:33:24 AM	25862
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 5:33:24 AM	25862
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/21/2016 5:33:24 AM	25862
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 5:33:24 AM	25862
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 5:33:24 AM	25862
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 5:33:24 AM	25862
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Fluorene	ND	2.7	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 5:33:24 AM	25862
1-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 5:33:24 AM	25862
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 5:33:24 AM	25862
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 5:33:24 AM	25862
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/21/2016 5:33:24 AM	25862
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 5:33:24 AM	25862
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 5:33:24 AM	25862
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Naphthalene	ND	2.6	10		µg/L	1	6/21/2016 5:33:24 AM	25862
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 5:33:24 AM	25862
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 5:33:24 AM	25862
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 5:33:24 AM	25862
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 5:33:24 AM	25862
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 5:33:24 AM	25862
Phenanthrene	ND	2.6	10		µg/L	1	6/21/2016 5:33:24 AM	25862

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 2:20:00 PM
Lab ID: 1606621-010 **Matrix:** AQUEOUS **Received Date:** 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Phenol	ND	2.0	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 5:33:24 AM	25862
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 5:33:24 AM	25862
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 5:33:24 AM	25862
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 5:33:24 AM	25862
Surr: 2-Fluorophenol	53.4	0	15-123		%Rec	1	6/21/2016 5:33:24 AM	25862
Surr: Phenol-d5	44.5	0	4.13-124		%Rec	1	6/21/2016 5:33:24 AM	25862
Surr: 2,4,6-Tribromophenol	89.0	0	18.4-134		%Rec	1	6/21/2016 5:33:24 AM	25862
Surr: Nitrobenzene-d5	71.6	0	28.8-134		%Rec	1	6/21/2016 5:33:24 AM	25862
Surr: 2-Fluorobiphenyl	64.0	0	35.9-125		%Rec	1	6/21/2016 5:33:24 AM	25862
Surr: 4-Terphenyl-d14	88.4	0	15-146		%Rec	1	6/21/2016 5:33:24 AM	25862
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	0.81	0.19	2.0	J	µg/L	2	6/20/2016 8:20:00 PM	R35014
Toluene	ND	0.24	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
Ethylbenzene	ND	0.22	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
Methyl tert-butyl ether (MTBE)	640	4.2	20		µg/L	20	6/21/2016 3:23:00 PM	R35071
1,2,4-Trimethylbenzene	ND	0.22	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
1,3,5-Trimethylbenzene	ND	0.23	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
1,2-Dichloroethane (EDC)	26	0.23	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
1,2-Dibromoethane (EDB)	ND	0.22	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
Naphthalene	ND	0.19	4.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
1-Methylnaphthalene	ND	0.41	8.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
2-Methylnaphthalene	ND	0.32	8.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
Acetone	ND	9.8	20		µg/L	2	6/20/2016 8:20:00 PM	R35014
Bromobenzene	ND	0.20	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
Bromodichloromethane	ND	0.28	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
Bromoform	ND	0.20	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
Bromomethane	ND	1.6	6.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
2-Butanone	ND	1.5	20		µg/L	2	6/20/2016 8:20:00 PM	R35014
Carbon disulfide	ND	1.2	20		µg/L	2	6/20/2016 8:20:00 PM	R35014
Carbon Tetrachloride	ND	0.22	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
Chlorobenzene	ND	0.23	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
Chloroethane	ND	0.38	4.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
Chloroform	ND	0.18	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
Chloromethane	ND	0.43	6.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
2-Chlorotoluene	ND	0.80	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
4-Chlorotoluene	ND	0.26	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
cis-1,2-DCE	2.1	0.25	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 2:20:00 PM
Lab ID: 1606621-010 **Matrix:** AQUEOUS **Received Date:** 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
cis-1,3-Dichloropropene	ND	0.21	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
1,2-Dibromo-3-chloropropane	ND	0.47	4.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
Dibromochloromethane	ND	0.17	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
Dibromomethane	ND	0.24	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
1,2-Dichlorobenzene	ND	0.80	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
1,3-Dichlorobenzene	ND	0.29	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
1,4-Dichlorobenzene	ND	0.29	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
Dichlorodifluoromethane	ND	0.71	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
1,1-Dichloroethane	23	0.22	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
1,1-Dichloroethene	46	0.21	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
1,2-Dichloropropane	ND	0.22	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
1,3-Dichloropropane	ND	0.31	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
2,2-Dichloropropane	ND	0.33	4.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
1,1-Dichloropropene	ND	0.27	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
Hexachlorobutadiene	ND	0.40	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
2-Hexanone	ND	1.7	20		µg/L	2	6/20/2016 8:20:00 PM	R35014
Isopropylbenzene	0.54	0.21	2.0	J	µg/L	2	6/20/2016 8:20:00 PM	R35014
4-Isopropyltoluene	ND	0.28	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
4-Methyl-2-pentanone	ND	0.86	20		µg/L	2	6/20/2016 8:20:00 PM	R35014
Methylene Chloride	ND	0.37	6.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
n-Butylbenzene	ND	0.32	6.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
n-Propylbenzene	ND	0.26	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
sec-Butylbenzene	1.0	0.25	2.0	J	µg/L	2	6/20/2016 8:20:00 PM	R35014
Styrene	ND	0.22	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
tert-Butylbenzene	ND	0.23	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
1,1,1,2-Tetrachloroethane	ND	0.22	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
1,1,2,2-Tetrachloroethane	ND	0.26	4.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
Tetrachloroethene (PCE)	ND	0.30	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
trans-1,2-DCE	ND	0.80	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
trans-1,3-Dichloropropene	ND	0.21	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
1,2,3-Trichlorobenzene	ND	0.23	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
1,2,4-Trichlorobenzene	ND	0.27	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
1,1,1-Trichloroethane	1.2	0.18	2.0	J	µg/L	2	6/20/2016 8:20:00 PM	R35014
1,1,2-Trichloroethane	1.9	0.25	2.0	J	µg/L	2	6/20/2016 8:20:00 PM	R35014
Trichloroethene (TCE)	ND	0.35	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
Trichlorofluoromethane	ND	0.41	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
1,2,3-Trichloropropane	ND	0.40	4.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
Vinyl chloride	ND	0.39	2.0		µg/L	2	6/20/2016 8:20:00 PM	R35014
Xylenes, Total	ND	0.73	3.0		µg/L	2	6/20/2016 8:20:00 PM	R35014

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 2:20:00 PM
Lab ID: 1606621-010
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 1,2-Dichloroethane-d4	94.1	0	70-130		%Rec	2	6/20/2016 8:20:00 PM	R35014
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	2	6/20/2016 8:20:00 PM	R35014
Surr: Dibromofluoromethane	101	0	70-130		%Rec	2	6/20/2016 8:20:00 PM	R35014
Surr: Toluene-d8	97.5	0	70-130		%Rec	2	6/20/2016 8:20:00 PM	R35014

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 3:06:00 PM
Lab ID: 1606621-011
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	6/15/2016 6:49:19 PM	25858
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/14/2016 12:36:53 AM	25809
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/14/2016 12:36:53 AM	25809
Surr: DNOP	115	0	70-141		%Rec	1	6/14/2016 12:36:53 AM	25809
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/16/2016 4:02:24 PM	B34963
Surr: BFB	112	0	66.4-120		%Rec	1	6/16/2016 4:02:24 PM	B34963
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.51	0.023	0.10		mg/L	1	6/13/2016 10:43:35 PM	R34886
Chloride	750	2.8	50		mg/L	100	6/30/2016 4:22:43 AM	B35338
Bromide	2.4	0.032	0.10		mg/L	1	6/13/2016 10:43:35 PM	R34886
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/13/2016 10:43:35 PM	R34886
Sulfate	71	1.3	10		mg/L	20	6/13/2016 10:55:59 PM	R34886
Nitrate+Nitrite as N	5.6	0.42	1.0		mg/L	5	6/14/2016 3:04:13 AM	R34886
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.071	0.0013	0.0020		mg/L	1	6/24/2016 3:27:05 PM	D35153
Cadmium	ND	0.00075	0.0020		mg/L	1	6/24/2016 3:27:05 PM	D35153
Calcium	14	0.26	1.0		mg/L	1	6/24/2016 3:27:05 PM	D35153
Chromium	0.0027	0.0018	0.0060	J	mg/L	1	6/24/2016 3:27:05 PM	D35153
Copper	ND	0.0040	0.0060		mg/L	1	6/24/2016 3:27:05 PM	D35153
Iron	0.19	0.0091	0.020		mg/L	1	6/24/2016 3:27:05 PM	D35153
Magnesium	2.0	0.013	1.0		mg/L	1	6/24/2016 3:27:05 PM	D35153
Manganese	0.019	0.00032	0.0020		mg/L	1	6/24/2016 3:27:05 PM	D35153
Potassium	2.1	0.18	1.0		mg/L	1	6/24/2016 3:27:05 PM	D35153
Silver	ND	0.0028	0.0050		mg/L	1	6/24/2016 3:27:05 PM	D35153
Sodium	640	0.96	10		mg/L	10	6/28/2016 4:49:29 PM	A35265
Zinc	0.0029	0.0028	0.010	J	mg/L	1	6/24/2016 3:27:05 PM	D35153
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.25	0.0011	0.0020		mg/L	1	6/20/2016 7:08:20 PM	25917
Cadmium	ND	0.00062	0.0020		mg/L	1	6/20/2016 7:08:20 PM	25917
Chromium	0.0043	0.0022	0.0060	J	mg/L	1	6/24/2016 4:58:45 PM	25917
Copper	ND	0.0051	0.0060		mg/L	1	6/20/2016 7:08:20 PM	25917
Iron	7.3	0.072	0.20	*	mg/L	10	6/24/2016 5:00:40 PM	25917
Manganese	0.30	0.0015	0.0020	*	mg/L	1	6/24/2016 4:58:45 PM	25917
Silver	ND	0.0021	0.0050		mg/L	1	6/20/2016 7:08:20 PM	25917
Zinc	0.029	0.0039	0.010		mg/L	1	6/24/2016 4:58:45 PM	25917

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 3:06:00 PM
Lab ID: 1606621-011
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0075	0.0028	0.020	J	mg/L	20	7/6/2016 7:20:06 PM	B35457
Lead	0.00091	0.00017	0.00050		mg/L	1	7/1/2016 6:52:05 PM	C35415
Selenium	0.060	0.0021	0.010	*	mg/L	10	7/1/2016 6:55:09 PM	C35415
Uranium	0.023	0.000051	0.00050		mg/L	1	7/1/2016 6:52:05 PM	C35415
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0067	0.0029	0.010	J	mg/L	10	6/27/2016 8:21:18 PM	25917
Lead	0.010	0.000047	0.00050		mg/L	1	6/21/2016 7:56:54 PM	25917
Selenium	0.046	0.012	0.10	J	mg/L	100	6/28/2016 6:57:13 PM	25917
Uranium	0.021	0.0000049	0.00050		mg/L	1	6/21/2016 7:56:54 PM	25917
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000094	0.000053	0.00020	J	mg/L	1	6/24/2016 10:53:40 AM	26032
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	13	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Acenaphthylene	ND	12	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Aniline	ND	12	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Anthracene	ND	12	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Azobenzene	ND	13	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Benz(a)anthracene	ND	13	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Benzo(a)pyrene	ND	14	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Benzo(b)fluoranthene	ND	14	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Benzo(g,h,i)perylene	ND	13	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Benzo(k)fluoranthene	ND	15	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Benzoic acid	ND	13	100	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Benzyl alcohol	ND	15	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Bis(2-chloroethoxy)methane	ND	14	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Bis(2-chloroethyl)ether	ND	13	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Bis(2-chloroisopropyl)ether	ND	9.5	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Bis(2-ethylhexyl)phthalate	24	13	50	JD	µg/L	1	6/21/2016 6:01:24 AM	25862
4-Bromophenyl phenyl ether	ND	13	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Butyl benzyl phthalate	ND	12	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Carbazole	ND	11	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
4-Chloro-3-methylphenol	ND	13	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
4-Chloroaniline	ND	14	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
2-Chloronaphthalene	ND	11	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
2-Chlorophenol	ND	11	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
4-Chlorophenyl phenyl ether	ND	13	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Chrysene	ND	14	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Di-n-butyl phthalate	ND	12	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 3:06:00 PM
Lab ID: 1606621-011
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Di-n-octyl phthalate	28	9.9	50	JD	µg/L	1	6/21/2016 6:01:24 AM	25862
Dibenz(a,h)anthracene	ND	13	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Dibenzofuran	ND	12	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
1,2-Dichlorobenzene	ND	11	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
1,3-Dichlorobenzene	ND	11	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
1,4-Dichlorobenzene	ND	12	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
3,3´-Dichlorobenzidine	ND	12	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Diethyl phthalate	ND	14	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Dimethyl phthalate	ND	12	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
2,4-Dichlorophenol	ND	12	100	D	µg/L	1	6/21/2016 6:01:24 AM	25862
2,4-Dimethylphenol	ND	15	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
4,6-Dinitro-2-methylphenol	ND	9.0	100	D	µg/L	1	6/21/2016 6:01:24 AM	25862
2,4-Dinitrophenol	ND	14	100	D	µg/L	1	6/21/2016 6:01:24 AM	25862
2,4-Dinitrotoluene	ND	16	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
2,6-Dinitrotoluene	ND	14	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Fluoranthene	ND	13	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Fluorene	ND	14	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Hexachlorobenzene	ND	13	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Hexachlorobutadiene	ND	11	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Hexachlorocyclopentadiene	ND	11	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Hexachloroethane	ND	12	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Indeno(1,2,3-cd)pyrene	ND	15	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Isophorone	ND	13	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
1-Methylnaphthalene	ND	15	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
2-Methylnaphthalene	ND	14	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
2-Methylphenol	ND	13	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
3+4-Methylphenol	ND	11	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
N-Nitrosodi-n-propylamine	ND	12	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
N-Nitrosodimethylamine	ND	11	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
N-Nitrosodiphenylamine	ND	12	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Naphthalene	ND	13	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
2-Nitroaniline	ND	14	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
3-Nitroaniline	ND	15	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
4-Nitroaniline	ND	13	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Nitrobenzene	ND	14	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
2-Nitrophenol	ND	12	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
4-Nitrophenol	ND	13	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Pentachlorophenol	ND	12	100	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Phenanthrene	ND	13	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 3:06:00 PM
Lab ID: 1606621-011
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Phenol	ND	9.9	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Pyrene	ND	15	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Pyridine	ND	11	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
1,2,4-Trichlorobenzene	ND	13	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
2,4,5-Trichlorophenol	ND	11	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
2,4,6-Trichlorophenol	ND	12	50	D	µg/L	1	6/21/2016 6:01:24 AM	25862
Surr: 2-Fluorophenol	63.9	0	15-123	D	%Rec	1	6/21/2016 6:01:24 AM	25862
Surr: Phenol-d5	51.9	0	4.13-124	D	%Rec	1	6/21/2016 6:01:24 AM	25862
Surr: 2,4,6-Tribromophenol	107	0	18.4-134	D	%Rec	1	6/21/2016 6:01:24 AM	25862
Surr: Nitrobenzene-d5	88.6	0	28.8-134	D	%Rec	1	6/21/2016 6:01:24 AM	25862
Surr: 2-Fluorobiphenyl	83.6	0	35.9-125	D	%Rec	1	6/21/2016 6:01:24 AM	25862
Surr: 4-Terphenyl-d14	115	0	15-146	D	%Rec	1	6/21/2016 6:01:24 AM	25862
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Toluene	ND	0.12	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Methyl tert-butyl ether (MTBE)	3.0	0.21	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1,2-Dichloroethane (EDC)	2.2	0.12	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Naphthalene	ND	0.093	2.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Acetone	ND	4.9	10		µg/L	1	6/21/2016 3:47:00 PM	R35071
Bromobenzene	ND	0.098	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Bromoform	ND	0.10	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Bromomethane	ND	0.78	3.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
2-Butanone	ND	0.74	10		µg/L	1	6/21/2016 3:47:00 PM	R35071
Carbon disulfide	ND	0.60	10		µg/L	1	6/21/2016 3:47:00 PM	R35071
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Chloroethane	ND	0.19	2.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Chloroform	ND	0.089	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Chloromethane	ND	0.21	3.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 3:06:00 PM
Lab ID: 1606621-011 **Matrix:** AQUEOUS **Received Date:** 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Dibromomethane	ND	0.12	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1,1-Dichloroethane	2.7	0.11	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1,1-Dichloroethene	3.4	0.11	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
2-Hexanone	ND	0.84	10		µg/L	1	6/21/2016 3:47:00 PM	R35071
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/21/2016 3:47:00 PM	R35071
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Styrene	ND	0.11	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1,1,2-Trichloroethane	0.54	0.13	1.0	J	µg/L	1	6/21/2016 3:47:00 PM	R35071
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/21/2016 3:47:00 PM	R35071
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/21/2016 3:47:00 PM	R35071

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 3:06:00 PM
Lab ID: 1606621-011
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 1,2-Dichloroethane-d4	89.5	0	70-130		%Rec	1	6/21/2016 3:47:00 PM	R35071
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	6/21/2016 3:47:00 PM	R35071
Surr: Dibromofluoromethane	91.5	0	70-130		%Rec	1	6/21/2016 3:47:00 PM	R35071
Surr: Toluene-d8	99.4	0	70-130		%Rec	1	6/21/2016 3:47:00 PM	R35071

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 3:46:00 PM
Lab ID: 1606621-012
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	0.12	0.0033	0.010		µg/L	1	6/15/2016 7:04:36 PM	25858
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	60	0.69	1.0		mg/L	1	6/14/2016 12:58:41 AM	25809
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/14/2016 12:58:41 AM	25809
Surr: DNOP	121	0	70-141		%Rec	1	6/14/2016 12:58:41 AM	25809
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.16	0.025	0.050		mg/L	1	6/16/2016 4:25:54 PM	B34963
Surr: BFB	132	0	66.4-120	S	%Rec	1	6/16/2016 4:25:54 PM	B34963
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.68	0.11	0.50		mg/L	5	6/13/2016 11:08:24 PM	R34886
Chloride	890	2.8	50		mg/L	100	6/30/2016 3:20:40 AM	B35338
Bromide	3.0	0.16	0.50		mg/L	5	6/13/2016 11:08:24 PM	R34886
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5	H	mg/L	5	6/13/2016 11:08:24 PM	R34886
Sulfate	130	0.32	2.5		mg/L	5	6/13/2016 11:08:24 PM	R34886
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/14/2016 3:16:38 AM	R34886
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.079	0.0013	0.0020		mg/L	1	6/24/2016 3:36:43 PM	D35153
Cadmium	ND	0.00075	0.0020		mg/L	1	6/24/2016 3:36:43 PM	D35153
Calcium	19	0.26	1.0		mg/L	1	6/24/2016 3:36:43 PM	D35153
Chromium	ND	0.0018	0.0060		mg/L	1	6/24/2016 3:36:43 PM	D35153
Copper	ND	0.0040	0.0060		mg/L	1	6/24/2016 3:36:43 PM	D35153
Iron	0.077	0.0091	0.020		mg/L	1	6/24/2016 3:36:43 PM	D35153
Magnesium	2.5	0.013	1.0		mg/L	1	6/24/2016 3:36:43 PM	D35153
Manganese	0.37	0.00032	0.0020	*	mg/L	1	6/24/2016 3:36:43 PM	D35153
Potassium	1.7	0.18	1.0		mg/L	1	6/24/2016 3:36:43 PM	D35153
Silver	ND	0.0028	0.0050		mg/L	1	6/24/2016 3:36:43 PM	D35153
Sodium	690	0.96	10		mg/L	10	6/28/2016 4:51:23 PM	A35265
Zinc	ND	0.0028	0.010		mg/L	1	6/24/2016 3:36:43 PM	D35153
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.12	0.0011	0.0020		mg/L	1	6/20/2016 7:20:12 PM	25917
Cadmium	ND	0.00062	0.0020		mg/L	1	6/20/2016 7:20:12 PM	25917
Chromium	ND	0.0022	0.0060		mg/L	1	6/20/2016 7:20:12 PM	25917
Copper	ND	0.0051	0.0060		mg/L	1	6/20/2016 7:20:12 PM	25917
Iron	1.6	0.036	0.10	*	mg/L	5	6/20/2016 7:21:50 PM	25917
Manganese	0.43	0.0015	0.0020	*	mg/L	1	6/24/2016 5:02:36 PM	25917
Silver	ND	0.0021	0.0050		mg/L	1	6/20/2016 7:20:12 PM	25917
Zinc	0.013	0.0039	0.010		mg/L	1	6/24/2016 5:02:36 PM	25917

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 3:46:00 PM
Lab ID: 1606621-012
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0060	0.0014	0.010	J	mg/L	10	7/1/2016 7:01:15 PM	C35415
Lead	0.00031	0.00017	0.00050	J	mg/L	1	7/1/2016 6:58:12 PM	C35415
Selenium	0.016	0.0021	0.010		mg/L	10	7/1/2016 7:01:15 PM	C35415
Uranium	0.021	0.000051	0.00050		mg/L	1	7/1/2016 6:58:12 PM	C35415
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0038	0.0029	0.010	J	mg/L	10	6/27/2016 8:30:24 PM	25917
Lead	0.0032	0.000047	0.00050		mg/L	1	6/21/2016 7:59:55 PM	25917
Selenium	0.0086	0.0012	0.010	J	mg/L	10	6/27/2016 8:30:24 PM	25917
Uranium	0.021	0.0000049	0.00050		mg/L	1	6/21/2016 7:59:55 PM	25917
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000097	0.000053	0.00020	J	mg/L	1	6/24/2016 10:55:42 AM	26032
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	13	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Acenaphthylene	ND	12	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Aniline	ND	12	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Anthracene	ND	12	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Azobenzene	ND	13	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Benz(a)anthracene	ND	13	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Benzo(a)pyrene	ND	14	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Benzo(b)fluoranthene	ND	14	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Benzo(g,h,i)perylene	ND	13	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Benzo(k)fluoranthene	ND	15	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Benzoic acid	ND	13	100	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Benzyl alcohol	ND	15	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Bis(2-chloroethoxy)methane	ND	14	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Bis(2-chloroethyl)ether	ND	13	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Bis(2-chloroisopropyl)ether	ND	9.5	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Bis(2-ethylhexyl)phthalate	21	13	50	JD	µg/L	1	6/21/2016 6:28:29 AM	25862
4-Bromophenyl phenyl ether	ND	13	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Butyl benzyl phthalate	ND	12	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Carbazole	ND	11	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
4-Chloro-3-methylphenol	ND	13	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
4-Chloroaniline	ND	14	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
2-Chloronaphthalene	ND	11	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
2-Chlorophenol	ND	11	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
4-Chlorophenyl phenyl ether	ND	13	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Chrysene	ND	14	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Di-n-butyl phthalate	ND	12	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862

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Hall Environmental Analysis Laboratory, Inc.

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Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 3:46:00 PM
Lab ID: 1606621-012
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Di-n-octyl phthalate	ND	9.9	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Dibenz(a,h)anthracene	ND	13	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Dibenzofuran	ND	12	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
1,2-Dichlorobenzene	ND	11	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
1,3-Dichlorobenzene	ND	11	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
1,4-Dichlorobenzene	ND	12	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
3,3´-Dichlorobenzidine	ND	12	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Diethyl phthalate	ND	14	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Dimethyl phthalate	ND	12	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
2,4-Dichlorophenol	ND	12	100	D	µg/L	1	6/21/2016 6:28:29 AM	25862
2,4-Dimethylphenol	ND	15	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
4,6-Dinitro-2-methylphenol	ND	9.0	100	D	µg/L	1	6/21/2016 6:28:29 AM	25862
2,4-Dinitrophenol	ND	14	100	D	µg/L	1	6/21/2016 6:28:29 AM	25862
2,4-Dinitrotoluene	ND	16	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
2,6-Dinitrotoluene	ND	14	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Fluoranthene	ND	13	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Fluorene	ND	14	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Hexachlorobenzene	ND	13	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Hexachlorobutadiene	ND	11	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Hexachlorocyclopentadiene	ND	11	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Hexachloroethane	ND	12	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Indeno(1,2,3-cd)pyrene	ND	15	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Isophorone	ND	13	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
1-Methylnaphthalene	ND	15	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
2-Methylnaphthalene	ND	14	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
2-Methylphenol	ND	13	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
3+4-Methylphenol	ND	11	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
N-Nitrosodi-n-propylamine	ND	12	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
N-Nitrosodimethylamine	ND	11	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
N-Nitrosodiphenylamine	ND	12	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Naphthalene	ND	13	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
2-Nitroaniline	ND	14	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
3-Nitroaniline	ND	15	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
4-Nitroaniline	ND	13	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Nitrobenzene	ND	14	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
2-Nitrophenol	ND	12	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
4-Nitrophenol	ND	13	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Pentachlorophenol	ND	12	100	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Phenanthrene	ND	13	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 3:46:00 PM
Lab ID: 1606621-012 **Matrix:** AQUEOUS **Received Date:** 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Phenol	ND	9.9	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Pyrene	ND	15	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Pyridine	ND	11	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
1,2,4-Trichlorobenzene	ND	13	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
2,4,5-Trichlorophenol	ND	11	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
2,4,6-Trichlorophenol	ND	12	50	D	µg/L	1	6/21/2016 6:28:29 AM	25862
Surr: 2-Fluorophenol	76.2	0	15-123	D	%Rec	1	6/21/2016 6:28:29 AM	25862
Surr: Phenol-d5	57.5	0	4.13-124	D	%Rec	1	6/21/2016 6:28:29 AM	25862
Surr: 2,4,6-Tribromophenol	65.9	0	18.4-134	D	%Rec	1	6/21/2016 6:28:29 AM	25862
Surr: Nitrobenzene-d5	106	0	28.8-134	D	%Rec	1	6/21/2016 6:28:29 AM	25862
Surr: 2-Fluorobiphenyl	92.1	0	35.9-125	D	%Rec	1	6/21/2016 6:28:29 AM	25862
Surr: 4-Terphenyl-d14	118	0	15-146	D	%Rec	1	6/21/2016 6:28:29 AM	25862
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Toluene	ND	0.12	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Naphthalene	ND	0.093	2.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Acetone	ND	4.9	10		µg/L	1	6/21/2016 4:35:00 PM	R35071
Bromobenzene	ND	0.098	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Bromoform	ND	0.10	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Bromomethane	ND	0.78	3.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
2-Butanone	ND	0.74	10		µg/L	1	6/21/2016 4:35:00 PM	R35071
Carbon disulfide	ND	0.60	10		µg/L	1	6/21/2016 4:35:00 PM	R35071
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Chloroethane	ND	0.19	2.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Chloroform	ND	0.089	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Chloromethane	ND	0.21	3.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Dibromomethane	ND	0.12	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
2-Hexanone	ND	0.84	10		µg/L	1	6/21/2016 4:35:00 PM	R35071
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/21/2016 4:35:00 PM	R35071
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Styrene	ND	0.11	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/21/2016 4:35:00 PM	R35071
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/21/2016 4:35:00 PM	R35071

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 3:46:00 PM
Lab ID: 1606621-012
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 1,2-Dichloroethane-d4	78.9	0	70-130		%Rec	1	6/21/2016 4:35:00 PM	R35071
Surr: 4-Bromofluorobenzene	115	0	70-130		%Rec	1	6/21/2016 4:35:00 PM	R35071
Surr: Dibromofluoromethane	91.7	0	70-130		%Rec	1	6/21/2016 4:35:00 PM	R35071
Surr: Toluene-d8	105	0	70-130		%Rec	1	6/21/2016 4:35:00 PM	R35071

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 2:20:00 PM
Lab ID: 1606621-013
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/14/2016 1:20:41 AM	25809
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/14/2016 1:20:41 AM	25809
Surr: DNOP	112	0	70-141		%Rec	1	6/14/2016 1:20:41 AM	25809
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/16/2016 4:49:23 PM	B34963
Surr: BFB	114	0	66.4-120		%Rec	1	6/16/2016 4:49:23 PM	B34963
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.45	2.0		mg/L	20	6/13/2016 11:45:38 PM	R34886
Chloride	15000	55	1000		mg/L	2000	6/30/2016 4:35:07 AM	B35338
Bromide	20	0.65	2.0		mg/L	20	6/13/2016 11:45:38 PM	R34886
Phosphorus, Orthophosphate (As P)	ND	4.4	10	H	mg/L	20	6/13/2016 11:45:38 PM	R34886
Sulfate	1300	280	1000		mg/L	2000	6/30/2016 4:35:07 AM	B35338
Nitrate+Nitrite as N	ND	4.6	10		mg/L	50	6/30/2016 5:47:13 PM	R35376
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.065	0.0013	0.0020		mg/L	1	6/24/2016 3:40:34 PM	E35153
Cadmium	ND	0.00075	0.0020		mg/L	1	6/24/2016 3:40:34 PM	E35153
Calcium	3100	26	100		mg/L	100	6/28/2016 4:55:18 PM	A35265
Chromium	ND	0.0018	0.0060		mg/L	1	6/24/2016 3:40:34 PM	E35153
Copper	ND	0.0040	0.0060		mg/L	1	6/24/2016 3:40:34 PM	E35153
Iron	0.11	0.0091	0.020		mg/L	1	6/24/2016 3:40:34 PM	E35153
Magnesium	480	0.065	5.0		mg/L	5	6/24/2016 3:42:42 PM	E35153
Manganese	20	0.032	0.20	*	mg/L	100	6/28/2016 4:55:18 PM	A35265
Potassium	9.8	0.18	1.0		mg/L	1	6/24/2016 3:40:34 PM	E35153
Silver	ND	0.0028	0.0050		mg/L	1	6/24/2016 3:40:34 PM	E35153
Sodium	6400	9.6	100		mg/L	100	6/28/2016 4:55:18 PM	A35265
Zinc	0.0073	0.0028	0.010	J	mg/L	1	6/24/2016 3:40:34 PM	E35153
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.24	0.0011	0.0020		mg/L	1	6/24/2016 5:04:39 PM	25917
Cadmium	ND	0.00062	0.0020		mg/L	1	6/24/2016 5:04:39 PM	25917
Chromium	ND	0.0022	0.0060		mg/L	1	6/24/2016 5:04:39 PM	25917
Copper	ND	0.0051	0.0060		mg/L	1	6/24/2016 5:04:39 PM	25917
Iron	7.9	0.072	0.20	*	mg/L	10	6/24/2016 5:06:38 PM	25917
Manganese	19	0.076	0.10	*	mg/L	50	6/24/2016 5:08:38 PM	25917
Silver	ND	0.0021	0.0050		mg/L	1	6/24/2016 5:04:39 PM	25917
Zinc	0.027	0.0039	0.010		mg/L	1	6/24/2016 5:04:39 PM	25917
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.027	0.0069	0.050	J*	mg/L	50	7/6/2016 7:29:17 PM	B35457

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 2:20:00 PM
Lab ID: 1606621-013
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.0017	0.0050		mg/L	10	7/6/2016 7:23:10 PM	B35457
Selenium	0.091	0.011	0.050	*	mg/L	50	7/6/2016 7:29:17 PM	B35457
Uranium	0.27	0.0010	0.010	*	mg/L	20	7/6/2016 7:26:13 PM	B35457
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.029	0.10		mg/L	100	6/27/2016 8:39:25 PM	25917
Lead	0.0098	0.00024	0.0025		mg/L	5	6/27/2016 8:33:24 PM	25917
Selenium	ND	0.10	0.10		mg/L	100	6/27/2016 8:39:25 PM	25917
Uranium	0.26	0.00049	0.050	*	mg/L	100	6/27/2016 8:39:25 PM	25917
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00013	0.000053	0.00020	J	mg/L	1	6/24/2016 11:02:03 AM	26032
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Aniline	ND	2.4	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 1:29:43 PM	25862
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Bis(2-ethylhexyl)phthalate	4.0	2.6	10	J	µg/L	1	6/21/2016 1:29:43 PM	25862
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Carbazole	ND	2.3	10		µg/L	1	6/21/2016 1:29:43 PM	25862
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 1:29:43 PM	25862
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 1:29:43 PM	25862
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 1:29:43 PM	25862
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 1:29:43 PM	25862
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Di-n-octyl phthalate	5.6	2.0	10	J	µg/L	1	6/21/2016 1:29:43 PM	25862

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 2:20:00 PM
Lab ID: 1606621-013 **Matrix:** AQUEOUS **Received Date:** 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 1:29:43 PM	25862
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 1:29:43 PM	25862
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 1:29:43 PM	25862
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 1:29:43 PM	25862
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	6/21/2016 1:29:43 PM	25862
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 1:29:43 PM	25862
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/21/2016 1:29:43 PM	25862
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 1:29:43 PM	25862
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 1:29:43 PM	25862
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 1:29:43 PM	25862
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Fluorene	ND	2.7	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 1:29:43 PM	25862
1-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 1:29:43 PM	25862
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 1:29:43 PM	25862
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 1:29:43 PM	25862
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/21/2016 1:29:43 PM	25862
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 1:29:43 PM	25862
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 1:29:43 PM	25862
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Naphthalene	ND	2.6	10		µg/L	1	6/21/2016 1:29:43 PM	25862
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 1:29:43 PM	25862
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 1:29:43 PM	25862
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 1:29:43 PM	25862
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 1:29:43 PM	25862
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 1:29:43 PM	25862
Phenanthrene	ND	2.6	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Phenol	ND	2.0	10		µg/L	1	6/21/2016 1:29:43 PM	25862

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 2:20:00 PM
Lab ID: 1606621-013
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 1:29:43 PM	25862
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 1:29:43 PM	25862
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 1:29:43 PM	25862
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 1:29:43 PM	25862
Surr: 2-Fluorophenol	19.4	0	15-123		%Rec	1	6/21/2016 1:29:43 PM	25862
Surr: Phenol-d5	20.4	0	4.13-124		%Rec	1	6/21/2016 1:29:43 PM	25862
Surr: 2,4,6-Tribromophenol	22.6	0	18.4-134		%Rec	1	6/21/2016 1:29:43 PM	25862
Surr: Nitrobenzene-d5	92.5	0	28.8-134		%Rec	1	6/21/2016 1:29:43 PM	25862
Surr: 2-Fluorobiphenyl	84.5	0	35.9-125		%Rec	1	6/21/2016 1:29:43 PM	25862
Surr: 4-Terphenyl-d14	116	0	15-146		%Rec	1	6/21/2016 1:29:43 PM	25862
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Toluene	ND	0.12	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Naphthalene	ND	0.093	2.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Acetone	ND	4.9	10		µg/L	1	6/21/2016 4:59:00 PM	R35071
Bromobenzene	ND	0.098	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Bromoform	ND	0.10	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Bromomethane	ND	0.78	3.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
2-Butanone	ND	0.74	10		µg/L	1	6/21/2016 4:59:00 PM	R35071
Carbon disulfide	ND	0.60	10		µg/L	1	6/21/2016 4:59:00 PM	R35071
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Chloroethane	ND	0.19	2.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Chloroform	ND	0.089	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Chloromethane	ND	0.21	3.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 2:20:00 PM
Lab ID: 1606621-013
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Dibromomethane	ND	0.12	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
2-Hexanone	ND	0.84	10		µg/L	1	6/21/2016 4:59:00 PM	R35071
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/21/2016 4:59:00 PM	R35071
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Styrene	ND	0.11	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/21/2016 4:59:00 PM	R35071
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/21/2016 4:59:00 PM	R35071
Surr: 1,2-Dichloroethane-d4	91.9	0	70-130		%Rec	1	6/21/2016 4:59:00 PM	R35071

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/9/2016 2:20:00 PM
Lab ID: 1606621-013
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 4-Bromofluorobenzene	99.8	0	70-130		%Rec	1	6/21/2016 4:59:00 PM	R35071
Surr: Dibromofluoromethane	96.6	0	70-130		%Rec	1	6/21/2016 4:59:00 PM	R35071
Surr: Toluene-d8	96.9	0	70-130		%Rec	1	6/21/2016 4:59:00 PM	R35071

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **MB-D**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **D35153**	RunNo: **35153**
Prep Date:	Analysis Date: **6/24/2016**	SeqNo: **1088479** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-D**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **D35153**	RunNo: **35153**
Prep Date:	Analysis Date: **6/24/2016**	SeqNo: **1088480** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Calcium	51	1.0	50.00	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	99.5	85	115			
Copper	0.50	0.0060	0.5000	0	99.1	85	115			
Iron	0.48	0.020	0.5000	0	96.3	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.49	0.0020	0.5000	0	98.9	85	115			
Potassium	50	1.0	50.00	0	99.1	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Zinc	0.49	0.010	0.5000	0	99.0	85	115			

Sample ID **LLLCS-D**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **D35153**	RunNo: **35153**
Prep Date:	Analysis Date: **6/24/2016**	SeqNo: **1088481** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0015	0.0020	0.002000	0	76.0	50	150			J
Cadmium	0.0022	0.0020	0.002000	0	110	50	150			
Calcium	0.58	1.0	0.5000	0	116	50	150			J
Chromium	0.0073	0.0060	0.006000	0	121	50	150			
Copper	0.0061	0.0060	0.006000	0	102	50	150			
Iron	0.020	0.020	0.02000	0	101	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **LLLCS-D**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **D35153**	RunNo: **35153**
Prep Date:	Analysis Date: **6/24/2016**	SeqNo: **1088481** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	0.54	1.0	0.5000	0	109	50	150			J
Manganese	0.0020	0.0020	0.002000	0	102	50	150			
Potassium	0.50	1.0	0.5000	0	100	50	150			J
Silver	0.0041	0.0050	0.005000	0	82.8	50	150			J
Zinc	0.0060	0.010	0.005000	0	119	50	150			J

Sample ID **MB-E**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **E35153**	RunNo: **35153**
Prep Date:	Analysis Date: **6/24/2016**	SeqNo: **1088482** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-E**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **E35153**	RunNo: **35153**
Prep Date:	Analysis Date: **6/24/2016**	SeqNo: **1088483** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	103	85	115			
Chromium	0.50	0.0060	0.5000	0	101	85	115			
Copper	0.49	0.0060	0.5000	0	98.8	85	115			
Iron	0.48	0.020	0.5000	0	96.1	85	115			
Magnesium	52	1.0	50.00	0	105	85	115			
Potassium	50	1.0	50.00	0	99.8	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.50	0.010	0.5000	0	99.8	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **LLLCS-E**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **E35153**	RunNo: **35153**
Prep Date:	Analysis Date: **6/24/2016**	SeqNo: **1088484** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0016	0.0020	0.002000	0	81.5	50	150			J
Cadmium	0.0019	0.0020	0.002000	0	96.5	50	150			J
Chromium	0.0052	0.0060	0.006000	0	87.0	50	150			J
Copper	0.0055	0.0060	0.006000	0	91.7	50	150			J
Iron	0.020	0.020	0.02000	0	97.6	50	150			J
Magnesium	0.53	1.0	0.5000	0	107	50	150			J
Potassium	0.44	1.0	0.5000	0	88.3	50	150			J
Silver	0.0045	0.0050	0.005000	0	89.2	50	150			J
Zinc	0.0060	0.010	0.005000	0	120	50	150			J

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A35265**	RunNo: **35265**
Prep Date:	Analysis Date: **6/28/2016**	SeqNo: **1090634** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Manganese	ND	0.0020								
Sodium	ND	1.0								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A35265**	RunNo: **35265**
Prep Date:	Analysis Date: **6/28/2016**	SeqNo: **1090635** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	50	1.0	50.00	0	99.0	85	115			
Manganese	0.48	0.0020	0.5000	0	95.3	85	115			
Sodium	50	1.0	50.00	0	99.0	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A35265**	RunNo: **35265**
Prep Date:	Analysis Date: **6/28/2016**	SeqNo: **1090636** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.52	1.0	0.5000	0	103	50	150			J
Manganese	0.0020	0.0020	0.002000	0	98.0	50	150			J
Sodium	0.52	1.0	0.5000	0	104	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **MB-25917**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **25917**	RunNo: **35031**
Prep Date: **6/17/2016**	Analysis Date: **6/20/2016**	SeqNo: **1082751** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-25917**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **25917**	RunNo: **35031**
Prep Date: **6/17/2016**	Analysis Date: **6/20/2016**	SeqNo: **1082752** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.6	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	97.8	85	115			
Copper	0.50	0.0060	0.5000	0	99.4	85	115			
Iron	0.47	0.020	0.5000	0	94.8	85	115			
Manganese	0.48	0.0020	0.5000	0	96.2	85	115			
Silver	0.10	0.0050	0.1000	0	103	85	115			
Zinc	0.49	0.010	0.5000	0	98.2	85	115			

Sample ID **LLLCS-25917**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **25917**	RunNo: **35031**
Prep Date: **6/17/2016**	Analysis Date: **6/20/2016**	SeqNo: **1082753** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0022	0.0020	0.002000	0	109	50	150			
Cadmium	0.0020	0.0020	0.002000	0	100	50	150			
Chromium	0.0052	0.0060	0.006000	0	86.0	50	150			J
Copper	0.0058	0.0060	0.006000	0	96.8	50	150			J
Iron	0.021	0.020	0.02000	0	104	50	150			
Manganese	0.0022	0.0020	0.002000	0	110	50	150			
Silver	0.0050	0.0050	0.005000	0	101	50	150			
Zinc	0.0070	0.010	0.005000	0	140	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	**1606621-005FMSDL**	SampType: **MSD**			TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**MKTF-31**	Batch ID: **B35346**			RunNo: **35346**					
Prep Date:		Analysis Date: **6/29/2016**			SeqNo: **1093393**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.013	0.00050	0.01250	0	102	70	130	0.628	20	

Sample ID	**1606621-005FMSLL**	SampType: **MS**			TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**MKTF-31**	Batch ID: **B35346**			RunNo: **35346**					
Prep Date:		Analysis Date: **6/29/2016**			SeqNo: **1093394**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.013	0.00050	0.01250	0	103	70	130			

Sample ID	**LCS**	SampType: **LCS**			TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID: **B35346**			RunNo: **35346**					
Prep Date:		Analysis Date: **6/29/2016**			SeqNo: **1093450**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.7	85	115			
Lead	0.012	0.00050	0.01250	0	94.6	85	115			
Selenium	0.025	0.0010	0.02500	0	99.6	85	115			

Sample ID	**LLLCS**	SampType: **LCSLL**			TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID: **B35346**			RunNo: **35346**					
Prep Date:		Analysis Date: **6/29/2016**			SeqNo: **1093453**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	101	50	150			
Lead	0.00049	0.00050	0.0005000	0	97.8	50	150			J
Selenium	0.00099	0.0010	0.001000	0	99.5	50	150			J

Sample ID	**MB**	SampType: **MBLK**			TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**PBW**	Batch ID: **B35346**			RunNo: **35346**					
Prep Date:		Analysis Date: **6/29/2016**			SeqNo: **1093455**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B35378**	RunNo: **35378**
Prep Date:	Analysis Date: **6/30/2016**	SeqNo: **1094537** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.4	85	115			
Selenium	0.024	0.0010	0.02500	0	96.2	85	115			
Uranium	0.012	0.00050	0.01250	0	95.9	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B35378**	RunNo: **35378**
Prep Date:	Analysis Date: **6/30/2016**	SeqNo: **1094539** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00093	0.0010	0.001000	0	93.2	50	150			J
Selenium	0.00088	0.0010	0.001000	0	88.2	50	150			J
Uranium	0.00048	0.00050	0.0005000	0	95.6	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B35378**	RunNo: **35378**
Prep Date:	Analysis Date: **6/30/2016**	SeqNo: **1094541** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **1606621-005FMSDL**	SampType: **MSD**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **MKTF-31**	Batch ID: **A35415**	RunNo: **35415**
Prep Date:	Analysis Date: **7/1/2016**	SeqNo: **1095821** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.004253	100	70	130	0.948	20	
Selenium	0.13	0.0050	0.1250	0.01354	94.7	70	130	0.497	20	
Uranium	0.11	0.0025	0.06250	0.04624	106	70	130	0.372	20	

Sample ID **1606621-005FMSLL**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **MKTF-31**	Batch ID: **A35415**	RunNo: **35415**
Prep Date:	Analysis Date: **7/1/2016**	SeqNo: **1095822** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.004253	101	70	130			
Selenium	0.13	0.0050	0.1250	0.01354	94.2	70	130			
Uranium	0.11	0.0025	0.06250	0.04624	107	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A35415**	RunNo: **35415**
Prep Date:	Analysis Date: **7/1/2016**	SeqNo: **1095863** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.8	85	115			
Lead	0.012	0.00050	0.01250	0	98.5	85	115			
Selenium	0.024	0.0010	0.02500	0	96.2	85	115			
Uranium	0.012	0.00050	0.01250	0	98.4	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C35415**	RunNo: **35415**
Prep Date:	Analysis Date: **7/1/2016**	SeqNo: **1095864** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.0	85	115			
Lead	0.012	0.00050	0.01250	0	98.9	85	115			
Selenium	0.024	0.0010	0.02500	0	97.7	85	115			
Uranium	0.012	0.00050	0.01250	0	98.9	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A35415**	RunNo: **35415**
Prep Date:	Analysis Date: **7/1/2016**	SeqNo: **1095865** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00097	0.0010	0.001000	0	96.7	50	150			J
Lead	0.00051	0.00050	0.0005000	0	102	50	150			
Selenium	0.00097	0.0010	0.001000	0	97.4	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	97.9	50	150			J

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C35415**	RunNo: **35415**
Prep Date:	Analysis Date: **7/1/2016**	SeqNo: **1095866** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00096	0.0010	0.001000	0	95.9	50	150			J
Lead	0.00050	0.00050	0.0005000	0	101	50	150			
Selenium	0.00099	0.0010	0.001000	0	98.6	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	98.3	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A35415**	RunNo: **35415**
Prep Date:	Analysis Date: **7/1/2016**	SeqNo: **1095867** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A35415**	RunNo: **35415**
Prep Date:	Analysis Date: **7/1/2016**	SeqNo: **1095867** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C35415**	RunNo: **35415**
Prep Date:	Analysis Date: **7/1/2016**	SeqNo: **1095868** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B35457**	RunNo: **35457**
Prep Date:	Analysis Date: **7/6/2016**	SeqNo: **1098043** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	93.7	85	115			
Lead	0.012	0.00050	0.01250	0	93.2	85	115			
Selenium	0.024	0.0010	0.02500	0	95.1	85	115			
Uranium	0.012	0.00050	0.01250	0	93.1	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B35457**	RunNo: **35457**
Prep Date:	Analysis Date: **7/6/2016**	SeqNo: **1098045** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00098	0.0010	0.001000	0	97.8	50	150			J
Lead	0.00047	0.00050	0.0005000	0	94.6	50	150			J
Selenium	0.0011	0.0010	0.001000	0	109	50	150			
Uranium	0.00046	0.00050	0.0005000	0	92.3	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B35457**	RunNo: **35457**
Prep Date:	Analysis Date: **7/6/2016**	SeqNo: **1098047** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B35457**	RunNo: **35457**
Prep Date:	Analysis Date: **7/6/2016**	SeqNo: **1098047** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	**MB-25917**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**25917**	RunNo:	**35081**					
Prep Date:	**6/17/2016**	Analysis Date:	**6/21/2016**	SeqNo:	**1084975**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	).0000065	0.00050								J

Sample ID	**MSLCS-25917**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**25917**	RunNo:	**35081**					
Prep Date:	**6/17/2016**	Analysis Date:	**6/21/2016**	SeqNo:	**1084979**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.6	85	115			
Lead	0.013	0.00050	0.01250	0	100	85	115			
Selenium	0.024	0.0010	0.02500	0	96.3	85	115			
Uranium	0.013	0.00050	0.01250	0	100	85	115			

Sample ID	**MSLLLCS-25917**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**25917**	RunNo:	**35081**					
Prep Date:	**6/17/2016**	Analysis Date:	**6/21/2016**	SeqNo:	**1084983**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0013	0.0010	0.001000	0	128	50	150			
Lead	0.00052	0.00050	0.0005000	0	104	50	150			
Selenium	0.0010	0.0010	0.001000	0	101	50	150			
Uranium	0.00051	0.00050	0.0005000	0	102	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	**MB-26032**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**26032**	RunNo:	**35154**					
Prep Date:	**6/23/2016**	Analysis Date:	**6/24/2016**	SeqNo:	**1087478**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000072	0.00020								J

Sample ID	**LCS-26032**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**26032**	RunNo:	**35154**					
Prep Date:	**6/23/2016**	Analysis Date:	**6/24/2016**	SeqNo:	**1087479**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.5	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R34886**	RunNo: **34886**
Prep Date:	Analysis Date: **6/13/2016**	SeqNo: **1077544** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	0.11	0.50								J
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	0.072	0.50								J
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R34886**	RunNo: **34886**
Prep Date:	Analysis Date: **6/13/2016**	SeqNo: **1077545** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.8	0.50	5.000	0	95.8	90	110			
Bromide	2.5	0.10	2.500	0	98.6	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.0	90	110			
Sulfate	9.7	0.50	10.00	0	97.4	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.7	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **B35338**	RunNo: **35338**
Prep Date:	Analysis Date: **6/30/2016**	SeqNo: **1093268** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **B35338**	RunNo: **35338**
Prep Date:	Analysis Date: **6/30/2016**	SeqNo: **1093269** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.3	90	110			
Sulfate	9.9	0.50	10.00	0	98.5	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R35376**	RunNo: **35376**
Prep Date:	Analysis Date: **6/30/2016**	SeqNo: **1094336** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R35376**	RunNo: **35376**							
Prep Date:	Analysis Date: **6/30/2016**	SeqNo: **1094336**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R35376**	RunNo: **35376**							
Prep Date:	Analysis Date: **6/30/2016**	SeqNo: **1094337**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	100	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R35434**	RunNo: **35434**							
Prep Date:	Analysis Date: **7/5/2016**	SeqNo: **1096451**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R35434**	RunNo: **35434**							
Prep Date:	Analysis Date: **7/5/2016**	SeqNo: **1096452**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.2	0.50	5.000	0	105	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **MB-25858**	SampType: **MBLK**	TestCode: **EPA Method 8011/504.1: EDB**
Client ID: **PBW**	Batch ID: **25858**	RunNo: **34956**
Prep Date: **6/15/2016**	Analysis Date: **6/15/2016**	SeqNo: **1080031** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID **LCS-25858**	SampType: **LCS**	TestCode: **EPA Method 8011/504.1: EDB**
Client ID: **LCSW**	Batch ID: **25858**	RunNo: **34956**
Prep Date: **6/15/2016**	Analysis Date: **6/15/2016**	SeqNo: **1080032** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.086	0.010	0.1000	0	85.9	70	130			

Sample ID **1606621-003CMS**	SampType: **MS**	TestCode: **EPA Method 8011/504.1: EDB**
Client ID: **MKTF-26**	Batch ID: **25858**	RunNo: **34956**
Prep Date: **6/15/2016**	Analysis Date: **6/15/2016**	SeqNo: **1080059** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.091	0.010	0.1000	0.004502	86.2	40.3	153			

Sample ID **1606621-003CMSD**	SampType: **MSD**	TestCode: **EPA Method 8011/504.1: EDB**
Client ID: **MKTF-26**	Batch ID: **25858**	RunNo: **34956**
Prep Date: **6/15/2016**	Analysis Date: **6/15/2016**	SeqNo: **1080061** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.081	0.010	0.1000	0.004502	77.0	40.3	153	10.7	29.5	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **LCS-25809**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **25809**	RunNo: **34862**
Prep Date: **6/13/2016**	Analysis Date: **6/13/2016**	SeqNo: **1077098** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.4	71.3	139			
Surr: DNOP	0.50		0.5000		99.0	70	141			

Sample ID **MB-25809**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **25809**	RunNo: **34862**
Prep Date: **6/13/2016**	Analysis Date: **6/13/2016**	SeqNo: **1077099** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		112	70	141			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **A34934**	RunNo: **34934**
Prep Date:	Analysis Date: **6/15/2016**	SeqNo: **1079447** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	22		20.00		111	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **A34934**	RunNo: **34934**
Prep Date:	Analysis Date: **6/15/2016**	SeqNo: **1079448** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	95.8	80	120			
Surr: BFB	24		20.00		121	66.4	120			S

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **B34963**	RunNo: **34963**
Prep Date:	Analysis Date: **6/16/2016**	SeqNo: **1080612** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	22		20.00		109	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **B34963**	RunNo: **34963**
Prep Date:	Analysis Date: **6/16/2016**	SeqNo: **1080615** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.42	0.050	0.5000	0	83.7	80	120			
Surr: BFB	24		20.00		119	66.4	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R35008**	RunNo: **35008**
Prep Date:	Analysis Date: **6/17/2016**	SeqNo: **1082049** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	16	1.0	20.00	0	78.1	70	130			
Toluene	16	1.0	20.00	0	79.8	70	130			
Chlorobenzene	16	1.0	20.00	0	77.8	70	130			
1,1-Dichloroethene	15	1.0	20.00	0	74.2	70	130			
Trichloroethene (TCE)	15	1.0	20.00	0	74.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.3		10.00		92.8	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R35008**	RunNo: **35008**
Prep Date:	Analysis Date: **6/17/2016**	SeqNo: **1082050** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R35008**	RunNo: **35008**
Prep Date:	Analysis Date: **6/17/2016**	SeqNo: **1082050** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R35008**	RunNo: **35008**
Prep Date:	Analysis Date: **6/17/2016**	SeqNo: **1082050** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.8		10.00		87.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.0	70	130			
Surr: Toluene-d8	9.8		10.00		98.1	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R35014**	RunNo: **35014**
Prep Date:	Analysis Date: **6/20/2016**	SeqNo: **1083137** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.0	70	130			
Toluene	20	1.0	20.00	0	98.0	70	130			
Chlorobenzene	20	1.0	20.00	0	98.6	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	90.6	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	92.4	70	130			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.5		10.00		94.6	70	130			
Surr: Toluene-d8	9.8		10.00		98.2	70	130			

Sample ID **vsb fridge**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R35014**	RunNo: **35014**
Prep Date:	Analysis Date: **6/20/2016**	SeqNo: **1083140** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**
27-Jul-16

Client: Western Refining Southwest, Gallup
Project: 2016 2ND QTR (MKTF)

Sample ID **vsb fridge**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R35014**	RunNo: **35014**
Prep Date:	Analysis Date: **6/20/2016**	SeqNo: **1083140** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **vsb fridge**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R35014**	RunNo: **35014**
Prep Date:	Analysis Date: **6/20/2016**	SeqNo: **1083140** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.0		10.00		89.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.4		10.00		93.8	70	130			
Surr: Toluene-d8	9.9		10.00		98.9	70	130			

Sample ID **1606621-003ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-26**	Batch ID: **R35014**	RunNo: **35014**
Prep Date:	Analysis Date: **6/20/2016**	SeqNo: **1083264** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	420	5.0	100.0	328.9	89.9	70	130			
Toluene	120	5.0	100.0	18.63	102	70	130			
Chlorobenzene	100	5.0	100.0	0	102	70	130			
1,1-Dichloroethene	160	5.0	100.0	67.64	91.6	70	130			
Trichloroethene (TCE)	100	5.0	100.0	3.080	99.9	70	130			
Surr: 1,2-Dichloroethane-d4	47		50.00		93.4	70	130			
Surr: 4-Bromofluorobenzene	50		50.00		101	70	130			
Surr: Dibromofluoromethane	49		50.00		97.1	70	130			
Surr: Toluene-d8	50		50.00		99.6	70	130			

Sample ID **1606621-003amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-26**	Batch ID: **R35014**	RunNo: **35014**
Prep Date:	Analysis Date: **6/20/2016**	SeqNo: **1083265** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	440	5.0	100.0	328.9	108	70	130			
Toluene	120	5.0	100.0	18.63	105	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **1606621-003amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-26**	Batch ID: **R35014**	RunNo: **35014**
Prep Date:	Analysis Date: **6/20/2016**	SeqNo: **1083265** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	110	5.0	100.0	0	106	70	130			
1,1-Dichloroethene	170	5.0	100.0	67.64	101	70	130			
Trichloroethene (TCE)	110	5.0	100.0	3.080	104	70	130			
Surr: 1,2-Dichloroethane-d4	47		50.00		93.1	70	130			
Surr: 4-Bromofluorobenzene	50		50.00		100	70	130			
Surr: Dibromofluoromethane	49		50.00		97.3	70	130			
Surr: Toluene-d8	50		50.00		100	70	130			

Sample ID **tune 6**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R35071**	RunNo: **35071**
Prep Date:	Analysis Date: **6/21/2016**	SeqNo: **1084527** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **tune 6**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R35071**	RunNo: **35071**
Prep Date:	Analysis Date: **6/21/2016**	SeqNo: **1084527** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **tune 6**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R35071**	RunNo: **35071**
Prep Date:	Analysis Date: **6/21/2016**	SeqNo: **1084527** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.0		10.00		89.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.4		10.00		94.4	70	130			
Surr: Toluene-d8	9.9		10.00		99.4	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R35071**	RunNo: **35071**
Prep Date:	Analysis Date: **6/21/2016**	SeqNo: **1084542** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Toluene	20	1.0	20.00	0	102	70	130			
Chlorobenzene	21	1.0	20.00	0	104	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	96.1	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	8.7		10.00		86.9	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.9	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.0	70	130			
Surr: Toluene-d8	9.6		10.00		95.8	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **mb-25862**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **25862**	RunNo: **35016**
Prep Date: **6/15/2016**	Analysis Date: **6/20/2016**	SeqNo: **1082703** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	6.6	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	2.8	10								J
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **mb-25862**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **25862**	RunNo: **35016**
Prep Date: **6/15/2016**	Analysis Date: **6/20/2016**	SeqNo: **1082703** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	110		200.0		55.3	15	123			
Surr: Phenol-d5	100		200.0		50.6	4.13	124			
Surr: 2,4,6-Tribromophenol	140		200.0		71.0	18.4	134			
Surr: Nitrobenzene-d5	74		100.0		74.1	28.8	134			
Surr: 2-Fluorobiphenyl	70		100.0		69.7	35.9	125			
Surr: 4-Terphenyl-d14	84		100.0		83.7	15	146			

Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606621**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **lcs-25862**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **25862**	RunNo: **35016**
Prep Date: **6/15/2016**	Analysis Date: **6/20/2016**	SeqNo: **1082704** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	66.8	35	113			
4-Chloro-3-methylphenol	130	10	200.0	0	64.5	40.7	114			
2-Chlorophenol	130	10	200.0	0	65.3	37.6	113			
1,4-Dichlorobenzene	53	10	100.0	0	53.0	37.7	106			
2,4-Dinitrotoluene	69	10	100.0	0	69.0	37	91			
N-Nitrosodi-n-propylamine	70	10	100.0	0	70.1	45.4	105			
4-Nitrophenol	71	10	200.0	0	35.6	33.4	104			
Pentachlorophenol	100	20	200.0	0	51.9	29.5	94.9			
Phenol	100	10	200.0	0	49.8	30.6	119			
Pyrene	72	10	100.0	0	72.1	26.2	120			
1,2,4-Trichlorobenzene	63	10	100.0	0	62.7	39.9	125			
Surr: 2-Fluorophenol	100		200.0		51.8	15	123			
Surr: Phenol-d5	100		200.0		49.8	4.13	124			
Surr: 2,4,6-Tribromophenol	130		200.0		63.6	18.4	134			
Surr: Nitrobenzene-d5	68		100.0		67.6	28.8	134			
Surr: 2-Fluorobiphenyl	64		100.0		63.6	35.9	125			
Surr: 4-Terphenyl-d14	77		100.0		76.7	15	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1606621** RcptNo: **1**

Received by/date: AF 06/10/16

Logged By: **Anne Thorne** 6/10/2016 3:35:00 PM Anne Thorne

Completed By: **Anne Thorne** 6/13/2016 Anne Thorne

Reviewed By: JC 6.13.16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☑ JC 6/13/16	
9. Was preservative added to bottles? See remarks	Yes ☑	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 33
(<2 or >12 unless noted)
Adjusted? yes
Checked by: JC 6/13/16

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

17. Additional remarks: MKTF-4W H_2SO_4 was not preserved. added 0.4mL. Acceptable pH 6.13.16 (1606621-003E/004E Add 1mL HCl JC 6/13/16) 2 of 2

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING ROAD, GALLUP, NM 87301

Phone #: 505-722-3833

Email or Fax#: 505-863-0930

QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)

Accreditation: ☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time: X Standard ☐ Rush

Project Name: 2016 2ND QTR (MKTF)

Project Manager: C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON/G VIGIL

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.1°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1606162	Analysis Request: 8260+MTBE	8015D EXTENDED	8270 + Phenols	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	Anions / Cations	8011/504.1	Air Bubbles (Y or N)
6/9/2016	700	AQUEOUS	Field Blank	3-40ml VOAs	HCL	-001	X							
6/9/2016	700	AQUEOUS	Trip Blank	3-40ml VOAs	HCL	-002	X							
6/9/2016	745	AQUEOUS	MKTF-26	1L AMBER	None	-003	X	X	X	X	X	X	X	
6/9/2016	755	AQUEOUS	MKTF-25	MISC	MISC	-004	X	X	X	X	X	X	X	
6/9/2016	846	AQUEOUS	MKTF-31	MISC	MISC	-005	X	X	X	X	X	X	X	
6/9/2016	950	AQUEOUS	MKTF-40	MISC	MISC	-006	X	X	X	X	X	X		
6/9/2016	1113	AQUEOUS	MKTF-30	MISC	MISC	-007	X	X	X	X	X	X	X	
6/9/2016	1052	AQUEOUS	MKTF-29	MISC	MISC	-008	X	X	X	X	X	X	X	
6/9/2016	1342	AQUEOUS	MKTF-44	MISC	MISC	-009	X	X	X	X	X	X		
6/9/2016	1420	AQUEOUS	MKTF-32	MISC	MISC	-010	X	X	X	X	X	X	X	
6/9/2016	1506	AQUEOUS	MKTF-41	MISC	MISC	-011	X	X	X	X	X	X	X	
6/9/2016	1546	AQUEOUS	MKTF-42	MISC	MISC	-012	X	X	X	X	X	X	X	
6/9/2016	1420	AQUEOUS	MKTF-43	MISC	MISC	-013	X	X	X	X	X	X		

Date:	Time:	Relinquished by:	Received by:	Date	Time
6/10/16	1200			6/10/16	1:30
Date:	Time:	Relinquished by:	Received by:	Date	Time
6/10/16	3:35			6/10/16	1535

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 27, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 2ND QTR (MKTF) OrderNo.: 1606617

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 6/10/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/8/2016 1:45:00 PM
Lab ID: 1606617-001
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/13/2016 6:45:21 PM	25809
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 6:45:21 PM	25809
Surr: DNOP	108	0	70-141		%Rec	1	6/13/2016 6:45:21 PM	25809
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	6/14/2016 5:26:29 PM	A34904
Surr: BFB	101	0	66.4-120		%Rec	1	6/14/2016 5:26:29 PM	A34904
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.93	0.023	0.10		mg/L	1	6/14/2016 2:22:59 AM	AR3488
Chloride	490	1.4	25		mg/L	50	6/29/2016 11:24:53 PM	A35338
Bromide	2.3	0.032	0.10		mg/L	1	6/14/2016 2:22:59 AM	AR3488
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/14/2016 2:22:59 AM	AR3488
Sulfate	160	1.3	10		mg/L	20	6/14/2016 2:35:23 AM	AR3488
Nitrate+Nitrite as N	0.84	0.42	1.0	J	mg/L	5	6/14/2016 4:39:31 AM	AR3488
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.074	0.0013	0.0020		mg/L	1	6/15/2016 5:43:41 PM	D34920
Cadmium	ND	0.00075	0.0020		mg/L	1	6/15/2016 5:43:41 PM	D34920
Calcium	51	0.26	1.0		mg/L	1	6/15/2016 5:43:41 PM	D34920
Chromium	ND	0.0018	0.0060		mg/L	1	6/15/2016 5:43:41 PM	D34920
Copper	ND	0.0040	0.0060		mg/L	1	6/15/2016 5:43:41 PM	D34920
Iron	0.14	0.0091	0.020		mg/L	1	6/15/2016 5:43:41 PM	D34920
Magnesium	9.9	0.013	1.0		mg/L	1	6/15/2016 5:43:41 PM	D34920
Manganese	0.022	0.00032	0.0020		mg/L	1	6/15/2016 5:43:41 PM	D34920
Potassium	2.4	0.18	1.0		mg/L	1	6/15/2016 5:43:41 PM	D34920
Silver	ND	0.0028	0.0050		mg/L	1	6/15/2016 5:43:41 PM	D34920
Sodium	620	0.96	10		mg/L	10	6/17/2016 2:48:27 PM	A34992
Zinc	0.012	0.0028	0.010		mg/L	1	6/15/2016 5:43:41 PM	D34920
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.14	0.0011	0.0020		mg/L	1	6/28/2016 12:54:48 PM	26104
Cadmium	ND	0.00062	0.0020		mg/L	1	6/28/2016 12:54:48 PM	26104
Chromium	ND	0.0022	0.0060		mg/L	1	6/28/2016 12:54:48 PM	26104
Copper	ND	0.0051	0.0060		mg/L	1	6/28/2016 12:54:48 PM	26104
Iron	4.7	0.036	0.10	*	mg/L	5	6/28/2016 1:00:10 PM	26104
Manganese	0.21	0.0015	0.0020	*	mg/L	1	6/28/2016 12:54:48 PM	26104
Silver	ND	0.0021	0.0050		mg/L	1	6/28/2016 12:54:48 PM	26104
Zinc	0.018	0.0039	0.010		mg/L	1	6/28/2016 12:54:48 PM	26104
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0054	0.0014	0.010	J	mg/L	10	7/8/2016 7:12:42 PM	B35538

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/8/2016 1:45:00 PM
Lab ID: 1606617-001
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00076	0.00017	0.00050		mg/L	1	6/29/2016 8:31:34 PM	B35346
Selenium	0.015	0.0021	0.010		mg/L	10	7/8/2016 7:12:42 PM	B35538
Uranium	0.15	0.00051	0.0050	*	mg/L	10	6/30/2016 7:59:27 PM	B35378
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0059	0.0029	0.010	J	mg/L	10	6/29/2016 11:27:58 AM	26104
Lead	0.0054	0.000047	0.00050		mg/L	1	6/28/2016 8:00:31 PM	26104
Selenium	0.013	0.0062	0.050	J	mg/L	50	6/29/2016 11:30:59 AM	26104
Uranium	0.15	0.000049	0.0050	*	mg/L	10	6/29/2016 11:27:58 AM	26104
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	6/28/2016 1:51:21 PM	26107
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Aniline	ND	2.4	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 12:53:26 AM	25862
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Bis(2-ethylhexyl)phthalate	4.1	2.6	10	J	µg/L	1	6/21/2016 12:53:26 AM	25862
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Carbazole	ND	2.3	10		µg/L	1	6/21/2016 12:53:26 AM	25862
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 12:53:26 AM	25862
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 12:53:26 AM	25862
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 12:53:26 AM	25862
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Di-n-octyl phthalate	ND	2.0	10		µg/L	1	6/21/2016 12:53:26 AM	25862

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/8/2016 1:45:00 PM
Lab ID: 1606617-001
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 12:53:26 AM	25862
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 12:53:26 AM	25862
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 12:53:26 AM	25862
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 12:53:26 AM	25862
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 12:53:26 AM	25862
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 12:53:26 AM	25862
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/21/2016 12:53:26 AM	25862
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 12:53:26 AM	25862
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 12:53:26 AM	25862
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 12:53:26 AM	25862
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Fluorene	ND	2.7	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
1-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 12:53:26 AM	25862
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 12:53:26 AM	25862
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 12:53:26 AM	25862
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/21/2016 12:53:26 AM	25862
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 12:53:26 AM	25862
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 12:53:26 AM	25862
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Naphthalene	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 12:53:26 AM	25862
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 12:53:26 AM	25862
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 12:53:26 AM	25862
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 12:53:26 AM	25862
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 12:53:26 AM	25862
Phenanthrene	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Phenol	ND	2.0	10		µg/L	1	6/21/2016 12:53:26 AM	25862

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/8/2016 1:45:00 PM
Lab ID: 1606617-001
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 12:53:26 AM	25862
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 12:53:26 AM	25862
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 12:53:26 AM	25862
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 12:53:26 AM	25862
Surr: 2-Fluorophenol	46.0	0	15-123		%Rec	1	6/21/2016 12:53:26 AM	25862
Surr: Phenol-d5	38.1	0	4.13-124		%Rec	1	6/21/2016 12:53:26 AM	25862
Surr: 2,4,6-Tribromophenol	72.7	0	18.4-134		%Rec	1	6/21/2016 12:53:26 AM	25862
Surr: Nitrobenzene-d5	96.6	0	28.8-134		%Rec	1	6/21/2016 12:53:26 AM	25862
Surr: 2-Fluorobiphenyl	76.8	0	35.9-125		%Rec	1	6/21/2016 12:53:26 AM	25862
Surr: 4-Terphenyl-d14	67.2	0	15-146		%Rec	1	6/21/2016 12:53:26 AM	25862
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Toluene	ND	0.12	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Ethylbenzene	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Methyl tert-butyl ether (MTBE)	0.54	0.21	1.0	J	µg/L	1	6/17/2016 2:52:00 PM	R35008
1,2,4-Trimethylbenzene	0.19	0.11	1.0	J	µg/L	1	6/17/2016 2:52:00 PM	R35008
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Naphthalene	0.36	0.093	2.0	J	µg/L	1	6/17/2016 2:52:00 PM	R35008
1-Methylnaphthalene	0.80	0.20	4.0	J	µg/L	1	6/17/2016 2:52:00 PM	R35008
2-Methylnaphthalene	1.0	0.16	4.0	J	µg/L	1	6/17/2016 2:52:00 PM	R35008
Acetone	ND	4.9	10		µg/L	1	6/17/2016 2:52:00 PM	R35008
Bromobenzene	ND	0.098	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Bromoform	ND	0.10	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Bromomethane	ND	0.78	3.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
2-Butanone	ND	0.74	10		µg/L	1	6/17/2016 2:52:00 PM	R35008
Carbon disulfide	ND	0.60	10		µg/L	1	6/17/2016 2:52:00 PM	R35008
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Chloroethane	ND	0.19	2.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Chloroform	ND	0.089	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Chloromethane	ND	0.21	3.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/8/2016 1:45:00 PM
Lab ID: 1606617-001
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Dibromomethane	ND	0.12	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
2-Hexanone	ND	0.84	10		µg/L	1	6/17/2016 2:52:00 PM	R35008
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/17/2016 2:52:00 PM	R35008
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Styrene	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/17/2016 2:52:00 PM	R35008
Xylenes, Total	ND	0.37	1.5		µg/L	1	6/17/2016 2:52:00 PM	R35008
Surr: 1,2-Dichloroethane-d4	87.1	0	70-130		%Rec	1	6/17/2016 2:52:00 PM	R35008

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/8/2016 1:45:00 PM
Lab ID: 1606617-001
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 4-Bromofluorobenzene	98.3	0	70-130		%Rec	1	6/17/2016 2:52:00 PM	R35008
Surr: Dibromofluoromethane	92.3	0	70-130		%Rec	1	6/17/2016 2:52:00 PM	R35008
Surr: Toluene-d8	98.0	0	70-130		%Rec	1	6/17/2016 2:52:00 PM	R35008

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/8/2016 2:18:00 PM
Lab ID: 1606617-002
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/13/2016 7:51:15 PM	25809
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 7:51:15 PM	25809
Surr: DNOP	112	0	70-141		%Rec	1	6/13/2016 7:51:15 PM	25809
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.084	0.025	0.050		mg/L	1	6/14/2016 5:51:08 PM	A34904
Surr: BFB	96.4	0	66.4-120		%Rec	1	6/14/2016 5:51:08 PM	A34904
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	1.2	0.14	0.50		mg/L	5	6/29/2016 11:37:18 PM	A35338
Chloride	2800	5.5	100		mg/L	200	6/29/2016 11:49:42 PM	A35338
Bromide	1.5	0.22	0.50		mg/L	5	6/29/2016 11:37:18 PM	A35338
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/14/2016 2:47:48 AM	AR3488
Sulfate	350	1.3	10		mg/L	20	6/14/2016 3:00:13 AM	AR3488
Nitrate+Nitrite as N	1.1	0.92	2.0	J	mg/L	10	7/5/2016 10:56:42 PM	A35434
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.074	0.0013	0.0020		mg/L	1	6/15/2016 5:47:28 PM	D34920
Cadmium	ND	0.00075	0.0020		mg/L	1	6/15/2016 5:47:28 PM	D34920
Calcium	170	1.3	5.0		mg/L	5	6/15/2016 5:49:30 PM	D34920
Chromium	ND	0.0018	0.0060		mg/L	1	6/15/2016 5:47:28 PM	D34920
Copper	ND	0.0040	0.0060		mg/L	1	6/15/2016 5:47:28 PM	D34920
Iron	0.40	0.0091	0.020	*	mg/L	1	6/15/2016 5:47:28 PM	D34920
Magnesium	27	0.013	1.0		mg/L	1	6/15/2016 5:47:28 PM	D34920
Manganese	0.52	0.00032	0.0020	*	mg/L	1	6/15/2016 5:47:28 PM	D34920
Potassium	9.9	0.18	1.0		mg/L	1	6/15/2016 5:47:28 PM	D34920
Silver	ND	0.0028	0.0050		mg/L	1	6/15/2016 5:47:28 PM	D34920
Sodium	1900	1.9	20		mg/L	20	6/17/2016 2:50:26 PM	A34992
Zinc	0.0070	0.0028	0.010	J	mg/L	1	6/15/2016 5:47:28 PM	D34920
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.21	0.0011	0.0020		mg/L	1	6/28/2016 1:06:04 PM	26104
Cadmium	ND	0.00062	0.0020		mg/L	1	6/28/2016 1:06:04 PM	26104
Chromium	0.0053	0.0022	0.0060	J	mg/L	1	6/28/2016 1:06:04 PM	26104
Copper	ND	0.0051	0.0060		mg/L	1	6/28/2016 1:06:04 PM	26104
Iron	9.6	0.072	0.20	*	mg/L	10	6/28/2016 7:31:27 PM	26104
Manganese	0.93	0.0015	0.0020	*	mg/L	1	6/28/2016 1:06:04 PM	26104
Silver	ND	0.0021	0.0050		mg/L	1	6/28/2016 1:06:04 PM	26104
Zinc	0.041	0.0039	0.010		mg/L	1	6/28/2016 1:06:04 PM	26104
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0036	0.00069	0.0050	J	mg/L	5	7/8/2016 7:28:07 PM	B35538

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/8/2016 2:18:00 PM
Lab ID: 1606617-002
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.0025	0.00084	0.0025		mg/L	5	6/30/2016 8:09:43 PM	B35378
Selenium	0.014	0.011	0.050	J	mg/L	50	7/1/2016 5:38:35 PM	A35415
Uranium	0.056	0.00026	0.0025	*	mg/L	5	6/30/2016 8:09:43 PM	B35378
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0042	0.0015	0.0050	J	mg/L	5	6/29/2016 11:34:00 AM	26104
Lead	0.011	0.00024	0.0025		mg/L	5	6/29/2016 11:34:00 AM	26104
Selenium	0.011	0.00062	0.0050		mg/L	5	6/29/2016 11:34:00 AM	26104
Uranium	0.059	0.000025	0.0025	*	mg/L	5	6/29/2016 11:34:00 AM	26104
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000086	0.000053	0.00020	J	mg/L	1	6/28/2016 1:57:34 PM	26107
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Aniline	ND	2.4	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 1:21:26 AM	25862
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Bis(2-ethylhexyl)phthalate	3.9	2.6	10	J	µg/L	1	6/21/2016 1:21:26 AM	25862
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Carbazole	ND	2.3	10		µg/L	1	6/21/2016 1:21:26 AM	25862
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 1:21:26 AM	25862
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 1:21:26 AM	25862
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 1:21:26 AM	25862
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Di-n-octyl phthalate	5.3	2.0	10	J	µg/L	1	6/21/2016 1:21:26 AM	25862

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Lab ID: 1606617-002
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 1:21:26 AM	25862
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 1:21:26 AM	25862
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 1:21:26 AM	25862
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 1:21:26 AM	25862
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 1:21:26 AM	25862
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 1:21:26 AM	25862
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/21/2016 1:21:26 AM	25862
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 1:21:26 AM	25862
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 1:21:26 AM	25862
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 1:21:26 AM	25862
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Fluorene	ND	2.7	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
1-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 1:21:26 AM	25862
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 1:21:26 AM	25862
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 1:21:26 AM	25862
3+4-Methylphenol	ND	2.3	10		µg/L	1	6/21/2016 1:21:26 AM	25862
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 1:21:26 AM	25862
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 1:21:26 AM	25862
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Naphthalene	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 1:21:26 AM	25862
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 1:21:26 AM	25862
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 1:21:26 AM	25862
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 1:21:26 AM	25862
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 1:21:26 AM	25862
Phenanthrene	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Phenol	ND	2.0	10		µg/L	1	6/21/2016 1:21:26 AM	25862

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/8/2016 2:18:00 PM
Lab ID: 1606617-002 **Matrix:** AQUEOUS **Received Date:** 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 1:21:26 AM	25862
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 1:21:26 AM	25862
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 1:21:26 AM	25862
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 1:21:26 AM	25862
Surr: 2-Fluorophenol	52.1	0	15-123		%Rec	1	6/21/2016 1:21:26 AM	25862
Surr: Phenol-d5	42.4	0	4.13-124		%Rec	1	6/21/2016 1:21:26 AM	25862
Surr: 2,4,6-Tribromophenol	82.1	0	18.4-134		%Rec	1	6/21/2016 1:21:26 AM	25862
Surr: Nitrobenzene-d5	99.4	0	28.8-134		%Rec	1	6/21/2016 1:21:26 AM	25862
Surr: 2-Fluorobiphenyl	85.0	0	35.9-125		%Rec	1	6/21/2016 1:21:26 AM	25862
Surr: 4-Terphenyl-d14	78.7	0	15-146		%Rec	1	6/21/2016 1:21:26 AM	25862
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	0.15	0.096	1.0	J	µg/L	1	6/17/2016 4:09:00 PM	R35008
Toluene	0.40	0.12	1.0	J	µg/L	1	6/17/2016 4:09:00 PM	R35008
Ethylbenzene	0.15	0.11	1.0	J	µg/L	1	6/17/2016 4:09:00 PM	R35008
Methyl tert-butyl ether (MTBE)	42	0.21	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,2,4-Trimethylbenzene	0.49	0.11	1.0	J	µg/L	1	6/17/2016 4:09:00 PM	R35008
1,3,5-Trimethylbenzene	0.17	0.12	1.0	J	µg/L	1	6/17/2016 4:09:00 PM	R35008
1,2-Dichloroethane (EDC)	0.70	0.12	1.0	J	µg/L	1	6/17/2016 4:09:00 PM	R35008
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Naphthalene	ND	0.093	2.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Acetone	ND	4.9	10		µg/L	1	6/17/2016 4:09:00 PM	R35008
Bromobenzene	ND	0.098	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Bromodichloromethane	ND	0.14	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Bromoform	ND	0.10	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Bromomethane	ND	0.78	3.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
2-Butanone	ND	0.74	10		µg/L	1	6/17/2016 4:09:00 PM	R35008
Carbon disulfide	ND	0.60	10		µg/L	1	6/17/2016 4:09:00 PM	R35008
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Chlorobenzene	ND	0.11	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Chloroethane	ND	0.19	2.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Chloroform	ND	0.089	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Chloromethane	ND	0.21	3.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
cis-1,2-DCE	0.22	0.12	1.0	J	µg/L	1	6/17/2016 4:09:00 PM	R35008
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008

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Collection Date: 6/8/2016 2:18:00 PM
Lab ID: 1606617-002
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Dibromochloromethane	ND	0.087	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Dibromomethane	ND	0.12	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,1-Dichloroethane	2.8	0.11	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,1-Dichloroethene	0.74	0.11	1.0	J	µg/L	1	6/17/2016 4:09:00 PM	R35008
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
2-Hexanone	ND	0.84	10		µg/L	1	6/17/2016 4:09:00 PM	R35008
Isopropylbenzene	ND	0.10	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	6/17/2016 4:09:00 PM	R35008
Methylene Chloride	ND	0.19	3.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
n-Butylbenzene	ND	0.16	3.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
n-Propylbenzene	ND	0.13	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
sec-Butylbenzene	0.16	0.12	1.0	J	µg/L	1	6/17/2016 4:09:00 PM	R35008
Styrene	ND	0.11	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Vinyl chloride	ND	0.20	1.0		µg/L	1	6/17/2016 4:09:00 PM	R35008
Xylenes, Total	0.91	0.37	1.5	J	µg/L	1	6/17/2016 4:09:00 PM	R35008
Surr: 1,2-Dichloroethane-d4	88.0	0	70-130		%Rec	1	6/17/2016 4:09:00 PM	R35008

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/8/2016 2:18:00 PM
Lab ID: 1606617-002
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 4-Bromofluorobenzene	105	0	70-130		%Rec	1	6/17/2016 4:09:00 PM	R35008
Surr: Dibromofluoromethane	93.2	0	70-130		%Rec	1	6/17/2016 4:09:00 PM	R35008
Surr: Toluene-d8	97.6	0	70-130		%Rec	1	6/17/2016 4:09:00 PM	R35008

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/8/2016 3:00:00 PM
Lab ID: 1606617-003
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	0.043	0.0033	0.010		µg/L	1	6/15/2016 4:16:21 PM	25857
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	6/13/2016 8:13:15 PM	25809
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	6/13/2016 8:13:15 PM	25809
Surr: DNOP	111	0	70-141		%Rec	1	6/13/2016 8:13:15 PM	25809
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	14	1.3	2.5		mg/L	50	6/14/2016 6:15:38 PM	A34904
Surr: BFB	101	0	66.4-120		%Rec	50	6/14/2016 6:15:38 PM	A34904
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.097	0.023	0.10	J	mg/L	1	6/14/2016 3:37:27 AM	AR3488
Chloride	700	1.4	25		mg/L	50	6/30/2016 12:02:06 AM	A35338
Bromide	0.47	0.032	0.10		mg/L	1	6/14/2016 3:37:27 AM	AR3488
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	6/14/2016 3:37:27 AM	AR3488
Sulfate	60	1.3	10		mg/L	20	6/14/2016 3:49:52 AM	AR3488
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	6/14/2016 5:04:21 AM	AR3488
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.27	0.0013	0.0020		mg/L	1	6/15/2016 5:51:32 PM	D34920
Cadmium	ND	0.00075	0.0020		mg/L	1	6/15/2016 5:51:32 PM	D34920
Calcium	130	1.3	5.0		mg/L	5	6/15/2016 5:53:31 PM	D34920
Chromium	ND	0.0018	0.0060		mg/L	1	6/15/2016 5:51:32 PM	D34920
Copper	ND	0.0040	0.0060		mg/L	1	6/15/2016 5:51:32 PM	D34920
Iron	0.65	0.0091	0.020	*	mg/L	1	6/15/2016 5:51:32 PM	D34920
Magnesium	23	0.013	1.0		mg/L	1	6/15/2016 5:51:32 PM	D34920
Manganese	1.9	0.0016	0.010	*	mg/L	5	6/15/2016 5:53:31 PM	D34920
Potassium	3.7	0.18	1.0		mg/L	1	6/15/2016 5:51:32 PM	D34920
Silver	ND	0.0028	0.0050		mg/L	1	6/15/2016 5:51:32 PM	D34920
Sodium	620	0.96	10		mg/L	10	6/17/2016 2:52:16 PM	A34992
Zinc	ND	0.0028	0.010		mg/L	1	6/15/2016 5:51:32 PM	D34920
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	15	0.053	0.10	*	mg/L	50	6/29/2016 1:23:32 PM	26104
Cadmium	ND	0.0031	0.010		mg/L	5	6/29/2016 1:21:42 PM	26104
Chromium	0.19	0.011	0.030	*	mg/L	5	6/29/2016 1:21:42 PM	26104
Copper	0.23	0.026	0.030		mg/L	5	6/29/2016 1:21:42 PM	26104
Iron	120	1.4	4.0	*	mg/L	200	6/29/2016 1:25:19 PM	26104
Manganese	35	0.076	0.10	*	mg/L	50	6/29/2016 1:23:32 PM	26104
Silver	ND	0.011	0.025		mg/L	5	6/29/2016 1:21:42 PM	26104
Zinc	0.38	0.019	0.050		mg/L	5	6/29/2016 1:21:42 PM	26104

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/8/2016 3:00:00 PM
Lab ID: 1606617-003
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0045	0.00069	0.0050	J	mg/L	5	7/8/2016 7:43:33 PM	B35538
Lead	0.0019	0.00017	0.00050		mg/L	1	6/29/2016 8:41:50 PM	B35346
Selenium	0.0084	0.0011	0.0050		mg/L	5	7/8/2016 7:43:33 PM	B35538
Uranium	0.027	0.00026	0.0025		mg/L	5	6/30/2016 8:20:00 PM	B35378
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.026	0.0015	0.0050	*	mg/L	5	6/29/2016 11:43:01 AM	26104
Lead	0.49	0.0024	0.025	*	mg/L	50	6/29/2016 11:58:08 AM	26104
Selenium	0.029	0.0062	0.050	J	mg/L	50	6/29/2016 11:58:08 AM	26104
Uranium	0.077	0.000025	0.0025	*	mg/L	5	6/29/2016 11:43:01 AM	26104
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00060	0.000053	0.00020		mg/L	1	6/28/2016 1:59:35 PM	26107
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Acenaphthylene	ND	2.4	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Aniline	ND	2.4	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Anthracene	ND	2.5	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Azobenzene	ND	2.7	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Benz(a)anthracene	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Benzo(a)pyrene	ND	2.7	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Benzoic acid	ND	2.6	20		µg/L	1	6/21/2016 1:49:19 AM	25862
Benzyl alcohol	ND	3.0	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Bis(2-ethylhexyl)phthalate	3.4	2.6	10	J	µg/L	1	6/21/2016 1:49:19 AM	25862
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Carbazole	ND	2.3	10		µg/L	1	6/21/2016 1:49:19 AM	25862
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
4-Chloroaniline	ND	2.7	10		µg/L	1	6/21/2016 1:49:19 AM	25862
2-Chloronaphthalene	ND	2.3	10		µg/L	1	6/21/2016 1:49:19 AM	25862
2-Chlorophenol	ND	2.2	10		µg/L	1	6/21/2016 1:49:19 AM	25862
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Chrysene	ND	2.8	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 1:49:19 AM	25862

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/8/2016 3:00:00 PM
Lab ID: 1606617-003 **Matrix:** AQUEOUS **Received Date:** 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Di-n-octyl phthalate	5.0	2.0	10	J	µg/L	1	6/21/2016 1:49:19 AM	25862
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Dibenzofuran	ND	2.5	10		µg/L	1	6/21/2016 1:49:19 AM	25862
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 1:49:19 AM	25862
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	6/21/2016 1:49:19 AM	25862
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	6/21/2016 1:49:19 AM	25862
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Diethyl phthalate	ND	2.7	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Dimethyl phthalate	ND	2.4	10		µg/L	1	6/21/2016 1:49:19 AM	25862
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	6/21/2016 1:49:19 AM	25862
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	6/21/2016 1:49:19 AM	25862
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	6/21/2016 1:49:19 AM	25862
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	6/21/2016 1:49:19 AM	25862
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	6/21/2016 1:49:19 AM	25862
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Fluoranthene	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Fluorene	ND	2.7	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Hexachlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Hexachlorobutadiene	ND	2.2	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Hexachloroethane	ND	2.4	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Isophorone	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
1-Methylnaphthalene	3.4	2.9	10	J	µg/L	1	6/21/2016 1:49:19 AM	25862
2-Methylnaphthalene	ND	2.9	10		µg/L	1	6/21/2016 1:49:19 AM	25862
2-Methylphenol	ND	2.5	10		µg/L	1	6/21/2016 1:49:19 AM	25862
3+4-Methylphenol	4.5	2.3	10	J	µg/L	1	6/21/2016 1:49:19 AM	25862
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	6/21/2016 1:49:19 AM	25862
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	6/21/2016 1:49:19 AM	25862
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Naphthalene	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
2-Nitroaniline	ND	2.8	10		µg/L	1	6/21/2016 1:49:19 AM	25862
3-Nitroaniline	ND	2.9	10		µg/L	1	6/21/2016 1:49:19 AM	25862
4-Nitroaniline	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Nitrobenzene	ND	2.8	10		µg/L	1	6/21/2016 1:49:19 AM	25862
2-Nitrophenol	ND	2.4	10		µg/L	1	6/21/2016 1:49:19 AM	25862
4-Nitrophenol	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Pentachlorophenol	ND	2.3	20		µg/L	1	6/21/2016 1:49:19 AM	25862
Phenanthrene	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/8/2016 3:00:00 PM
Lab ID: 1606617-003
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Phenol	5.6	2.0	10	J	µg/L	1	6/21/2016 1:49:19 AM	25862
Pyrene	ND	3.1	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Pyridine	ND	2.2	10		µg/L	1	6/21/2016 1:49:19 AM	25862
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	6/21/2016 1:49:19 AM	25862
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	6/21/2016 1:49:19 AM	25862
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	6/21/2016 1:49:19 AM	25862
Surr: 2-Fluorophenol	44.5	0	15-123		%Rec	1	6/21/2016 1:49:19 AM	25862
Surr: Phenol-d5	39.4	0	4.13-124		%Rec	1	6/21/2016 1:49:19 AM	25862
Surr: 2,4,6-Tribromophenol	85.6	0	18.4-134		%Rec	1	6/21/2016 1:49:19 AM	25862
Surr: Nitrobenzene-d5	87.0	0	28.8-134		%Rec	1	6/21/2016 1:49:19 AM	25862
Surr: 2-Fluorobiphenyl	82.1	0	35.9-125		%Rec	1	6/21/2016 1:49:19 AM	25862
Surr: 4-Terphenyl-d14	75.1	0	15-146		%Rec	1	6/21/2016 1:49:19 AM	25862
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	3000	4.8	50		µg/L	50	6/17/2016 4:33:00 PM	R35008
Toluene	18	0.59	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Ethylbenzene	74	0.56	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Methyl tert-butyl ether (MTBE)	210	1.1	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,2,4-Trimethylbenzene	3.2	0.55	5.0	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
1,3,5-Trimethylbenzene	0.75	0.58	5.0	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Naphthalene	4.0	0.46	10	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
1-Methylnaphthalene	3.8	1.0	20	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
2-Methylnaphthalene	ND	0.79	20		µg/L	5	6/17/2016 4:57:00 PM	R35008
Acetone	44	25	50	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
Bromobenzene	ND	0.49	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Bromodichloromethane	ND	0.70	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Bromoform	ND	0.51	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Bromomethane	ND	3.9	15		µg/L	5	6/17/2016 4:57:00 PM	R35008
2-Butanone	12	3.7	50	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
Carbon disulfide	ND	3.0	50		µg/L	5	6/17/2016 4:57:00 PM	R35008
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Chlorobenzene	ND	0.57	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Chloroethane	ND	0.96	10		µg/L	5	6/17/2016 4:57:00 PM	R35008
Chloroform	ND	0.44	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Chloromethane	ND	1.1	15		µg/L	5	6/17/2016 4:57:00 PM	R35008
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
cis-1,2-DCE	28	0.62	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/8/2016 3:00:00 PM
Lab ID: 1606617-003
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	6/17/2016 4:57:00 PM	R35008
Dibromochloromethane	ND	0.43	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Dibromomethane	ND	0.60	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,1-Dichloroethane	92	0.54	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,1-Dichloroethene	46	0.54	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
2,2-Dichloropropane	ND	0.83	10		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
2-Hexanone	ND	4.2	50		µg/L	5	6/17/2016 4:57:00 PM	R35008
Isopropylbenzene	13	0.52	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	6/17/2016 4:57:00 PM	R35008
Methylene Chloride	ND	0.94	15		µg/L	5	6/17/2016 4:57:00 PM	R35008
n-Butylbenzene	4.2	0.80	15	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
n-Propylbenzene	22	0.66	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
sec-Butylbenzene	3.2	0.62	5.0	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
Styrene	ND	0.55	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	6/17/2016 4:57:00 PM	R35008
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,1,1-Trichloroethane	3.6	0.46	5.0	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
1,1,2-Trichloroethane	1.4	0.64	5.0	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
Trichloroethene (TCE)	4.3	0.88	5.0	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	6/17/2016 4:57:00 PM	R35008
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	6/17/2016 4:57:00 PM	R35008
Vinyl chloride	4.9	0.98	5.0	J	µg/L	5	6/17/2016 4:57:00 PM	R35008
Xylenes, Total	6.0	1.8	7.5	J	µg/L	5	6/17/2016 4:57:00 PM	R35008

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: 2016 2ND QTR (MKTF)
Collection Date: 6/8/2016 3:00:00 PM
Lab ID: 1606617-003
Matrix: AQUEOUS
Received Date: 6/10/2016 3:35:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: 1,2-Dichloroethane-d4	90.7	0	70-130		%Rec	5	6/17/2016 4:57:00 PM	R35008
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	5	6/17/2016 4:57:00 PM	R35008
Surr: Dibromofluoromethane	92.0	0	70-130		%Rec	5	6/17/2016 4:57:00 PM	R35008
Surr: Toluene-d8	102	0	70-130		%Rec	5	6/17/2016 4:57:00 PM	R35008

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606617**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **MB-D**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **D34920**	RunNo: **34920**
Prep Date:	Analysis Date: **6/15/2016**	SeqNo: **1079533** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-D**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **D34920**	RunNo: **34920**
Prep Date:	Analysis Date: **6/15/2016**	SeqNo: **1079534** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.2	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Calcium	50	1.0	50.00	0	101	85	115			
Chromium	0.50	0.0060	0.5000	0	99.1	85	115			
Copper	0.50	0.0060	0.5000	0	100	85	115			
Iron	0.49	0.020	0.5000	0	97.4	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	97.3	85	115			
Potassium	48	1.0	50.00	0	96.8	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Zinc	0.49	0.010	0.5000	0	98.1	85	115			

Sample ID **LLLCS-D**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **D34920**	RunNo: **34920**
Prep Date:	Analysis Date: **6/15/2016**	SeqNo: **1079535** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0023	0.0020	0.002000	0	116	50	150			
Cadmium	0.0021	0.0020	0.002000	0	107	50	150			
Calcium	0.54	1.0	0.5000	0	109	50	150			J
Chromium	0.0058	0.0060	0.006000	0	97.0	50	150			J
Copper	0.0062	0.0060	0.006000	0	104	50	150			
Iron	0.021	0.020	0.02000	0	104	50	150			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606617**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **LLLCS-D**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **D34920**	RunNo: **34920**
Prep Date:	Analysis Date: **6/15/2016**	SeqNo: **1079535** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	0.54	1.0	0.5000	0	107	50	150			J
Manganese	0.0021	0.0020	0.002000	0	105	50	150			
Potassium	0.53	1.0	0.5000	0	107	50	150			J
Silver	0.0050	0.0050	0.005000	0	101	50	150			
Zinc	0.0062	0.010	0.005000	0	125	50	150			J

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A34992**	RunNo: **34992**
Prep Date:	Analysis Date: **6/17/2016**	SeqNo: **1081597** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A34992**	RunNo: **34992**
Prep Date:	Analysis Date: **6/17/2016**	SeqNo: **1081598** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	49	1.0	50.00	0	98.0	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A34992**	RunNo: **34992**
Prep Date:	Analysis Date: **6/17/2016**	SeqNo: **1081599** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	0.49	1.0	0.5000	0	97.8	50	150			J

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606617**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **MB-26104**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **26104**	RunNo: **35265**
Prep Date: **6/27/2016**	Analysis Date: **6/28/2016**	SeqNo: **1090649** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-26104**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **26104**	RunNo: **35265**
Prep Date: **6/27/2016**	Analysis Date: **6/28/2016**	SeqNo: **1090650** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.4	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	98.3	85	115			
Copper	0.48	0.0060	0.5000	0	95.4	85	115			
Iron	0.47	0.020	0.5000	0	94.2	85	115			
Manganese	0.48	0.0020	0.5000	0	96.0	85	115			
Silver	0.10	0.0050	0.1000	0	99.9	85	115			
Zinc	0.49	0.010	0.5000	0	98.5	85	115			

Sample ID **LLLCS-26104**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **26104**	RunNo: **35265**
Prep Date: **6/27/2016**	Analysis Date: **6/28/2016**	SeqNo: **1090651** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0027	0.0020	0.002000	0	134	50	150			
Cadmium	0.0027	0.0020	0.002000	0	134	50	150			
Chromium	0.0062	0.0060	0.006000	0	103	50	150			
Copper	0.0059	0.0060	0.006000	0	98.7	50	150			J
Iron	0.018	0.020	0.02000	0	88.6	50	150			J
Manganese	0.0019	0.0020	0.002000	0	94.5	50	150			J
Silver	0.0052	0.0050	0.005000	0	105	50	150			
Zinc	0.0056	0.010	0.005000	0	111	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606617**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	**1606617-001EMS**	SampType:	**MS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-28**	Batch ID:	**26104**	RunNo:	**35265**					
Prep Date:	**6/27/2016**	Analysis Date:	**6/28/2016**	SeqNo:	**1090926**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.0020	0.5000	0.1416	101	70	130			
Cadmium	0.51	0.0020	0.5000	0	102	70	130			
Chromium	0.49	0.0060	0.5000	0	98.9	70	130			
Copper	0.53	0.0060	0.5000	0	105	70	130			
Manganese	0.70	0.0020	0.5000	0.2108	98.1	70	130			
Silver	0.10	0.0050	0.1000	0	102	70	130			
Zinc	0.52	0.010	0.5000	0.01820	101	70	130			

Sample ID	**1606617-001EMSD**	SampType:	**MSD**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-28**	Batch ID:	**26104**	RunNo:	**35265**					
Prep Date:	**6/27/2016**	Analysis Date:	**6/28/2016**	SeqNo:	**1090927**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.67	0.0020	0.5000	0.1416	105	70	130	3.12	20	
Cadmium	0.51	0.0020	0.5000	0	103	70	130	1.16	20	
Chromium	0.50	0.0060	0.5000	0	101	70	130	1.81	20	
Copper	0.54	0.0060	0.5000	0	108	70	130	2.85	20	
Manganese	0.72	0.0020	0.5000	0.2108	102	70	130	2.52	20	
Silver	0.10	0.0050	0.1000	0	105	70	130	2.28	20	
Zinc	0.53	0.010	0.5000	0.01820	103	70	130	2.08	20	

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606617**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B35346**	RunNo: **35346**
Prep Date:	Analysis Date: **6/29/2016**	SeqNo: **1093450** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	94.6	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B35346**	RunNo: **35346**
Prep Date:	Analysis Date: **6/29/2016**	SeqNo: **1093453** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00049	0.00050	0.0005000	0	97.8	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B35346**	RunNo: **35346**
Prep Date:	Analysis Date: **6/29/2016**	SeqNo: **1093455** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B35378**	RunNo: **35378**
Prep Date:	Analysis Date: **6/30/2016**	SeqNo: **1094537** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	94.0	85	115			
Uranium	0.012	0.00050	0.01250	0	95.9	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B35378**	RunNo: **35378**
Prep Date:	Analysis Date: **6/30/2016**	SeqNo: **1094539** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00047	0.00050	0.0005000	0	94.4	50	150			J
Uranium	0.00048	0.00050	0.0005000	0	95.6	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B35378**	RunNo: **35378**
Prep Date:	Analysis Date: **6/30/2016**	SeqNo: **1094541** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Uranium	ND	0.00050								

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606617**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A35415**	RunNo: **35415**
Prep Date:	Analysis Date: **7/1/2016**	SeqNo: **1095863** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.024	0.0010	0.02500	0	96.2	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A35415**	RunNo: **35415**
Prep Date:	Analysis Date: **7/1/2016**	SeqNo: **1095865** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.00097	0.0010	0.001000	0	97.4	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A35415**	RunNo: **35415**
Prep Date:	Analysis Date: **7/1/2016**	SeqNo: **1095867** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B35538**	RunNo: **35538**
Prep Date:	Analysis Date: **7/8/2016**	SeqNo: **1100547** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.026	0.0010	0.02500	0	102	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B35538**	RunNo: **35538**
Prep Date:	Analysis Date: **7/8/2016**	SeqNo: **1100548** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	102	50	150			
Selenium	0.0011	0.0010	0.001000	0	106	50	150			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B35538**	RunNo: **35538**
Prep Date:	Analysis Date: **7/8/2016**	SeqNo: **1100549** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606617**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **MB-26104**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **26104**	RunNo: **35300**
Prep Date: **6/27/2016**	Analysis Date: **6/28/2016**	SeqNo: **1091858** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	0.00010	0.00050								J
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **MSLCS-26104**	SampType: **LCS**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **LCSW**	Batch ID: **26104**	RunNo: **35300**
Prep Date: **6/27/2016**	Analysis Date: **6/28/2016**	SeqNo: **1091860** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.6	85	115			
Lead	0.012	0.00050	0.01250	0	98.0	85	115			
Selenium	0.024	0.0010	0.02500	0	95.4	85	115			
Uranium	0.012	0.00050	0.01250	0	97.6	85	115			

Sample ID **MSLLLCS-26104**	SampType: **LCSLL**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **BatchQC**	Batch ID: **26104**	RunNo: **35300**
Prep Date: **6/27/2016**	Analysis Date: **6/28/2016**	SeqNo: **1091862** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	100	50	150			
Lead	0.00052	0.00050	0.0005000	0	104	50	150			
Selenium	0.00093	0.0010	0.001000	0	92.5	50	150			J
Uranium	0.00050	0.00050	0.0005000	0	100	50	150			

Sample ID **1606617-002EMSLL**	SampType: **MSLL**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **MKTF-27**	Batch ID: **26104**	RunNo: **35310**
Prep Date: **6/27/2016**	Analysis Date: **6/29/2016**	SeqNo: **1092026** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0050	0.02500	0.004186	98.8	70	130			
Lead	0.023	0.0025	0.01250	0.01059	101	70	130			
Selenium	0.032	0.0050	0.02500	0.01072	85.1	70	130			
Uranium	0.072	0.0025	0.01250	0.05948	99.1	70	130			

Sample ID **1606617-003EMSDL**	SampType: **MSDLL**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **MKTF-24**	Batch ID: **26104**	RunNo: **35310**
Prep Date: **6/27/2016**	Analysis Date: **6/29/2016**	SeqNo: **1092029** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606617**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	**1606617-003EMSDL**	SampType:	**MSDLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-24**	Batch ID:	**26104**		RunNo:	**35310**				
Prep Date:	**6/27/2016**	Analysis Date:	**6/29/2016**		SeqNo:	**1092029**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.039	0.0050	0.02500	0.02644	52.0	70	130	0	20	S

Sample ID	**1606617-003EMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-24**	Batch ID:	**26104**		RunNo:	**35310**				
Prep Date:	**6/27/2016**	Analysis Date:	**6/29/2016**		SeqNo:	**1092030**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.039	0.0050	0.02500	0.02644	50.1	70	130			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606617**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	**MB-26107**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**26107**	RunNo:	**35280**					
Prep Date:	**6/27/2016**	Analysis Date:	**6/28/2016**	SeqNo:	**1091051**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-26107**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**26107**	RunNo:	**35280**					
Prep Date:	**6/27/2016**	Analysis Date:	**6/28/2016**	SeqNo:	**1091052**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.4	80	120			

Sample ID	**1606617-001EMS**	SampType:	**MS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**MKTF-28**	Batch ID:	**26107**	RunNo:	**35280**					
Prep Date:	**6/27/2016**	Analysis Date:	**6/28/2016**	SeqNo:	**1091054**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	105	75	125			

Sample ID	**1606617-001EMSD**	SampType:	**MSD**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**MKTF-28**	Batch ID:	**26107**	RunNo:	**35280**					
Prep Date:	**6/27/2016**	Analysis Date:	**6/28/2016**	SeqNo:	**1091055**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	106	75	125	0.783	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606617**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **AR34887**	RunNo: **34887**
Prep Date:	Analysis Date: **6/13/2016**	SeqNo: **1077666** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **AR34887**	RunNo: **34887**
Prep Date:	Analysis Date: **6/13/2016**	SeqNo: **1077667** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Bromide	2.5	0.10	2.500	0	98.1	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.3	90	110			
Sulfate	9.6	0.50	10.00	0	96.4	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	98.7	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A35338**	RunNo: **35338**
Prep Date:	Analysis Date: **6/29/2016**	SeqNo: **1093234** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A35338**	RunNo: **35338**
Prep Date:	Analysis Date: **6/29/2016**	SeqNo: **1093235** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.54	0.10	0.5000	0	108	90	110			
Chloride	5.1	0.50	5.000	0	102	90	110			
Bromide	2.6	0.10	2.500	0	103	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A35434**	RunNo: **35434**
Prep Date:	Analysis Date: **7/5/2016**	SeqNo: **1096506** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606617**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A35434**	RunNo: **35434**
Prep Date:	Analysis Date: **7/5/2016**	SeqNo: **1096506** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A35434**	RunNo: **35434**
Prep Date:	Analysis Date: **7/5/2016**	SeqNo: **1096507** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	98.8	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606617**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID	**MB-25857**	SampType:	**MBLK**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**PBW**	Batch ID:	**25857**	RunNo:	**34956**					
Prep Date:	**6/15/2016**	Analysis Date:	**6/15/2016**	SeqNo:	**1080029**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID	**LCS-25857**	SampType:	**LCS**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**LCSW**	Batch ID:	**25857**	RunNo:	**34956**					
Prep Date:	**6/15/2016**	Analysis Date:	**6/15/2016**	SeqNo:	**1080030**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.090	0.010	0.1000	0	90.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606617**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **1606617-001BMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **MKTF-28**	Batch ID: **25809**	RunNo: **34862**
Prep Date: **6/13/2016**	Analysis Date: **6/13/2016**	SeqNo: **1077080** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.5	1.0	5.000	0	110	59.4	160			
Surr: DNOP	0.54		0.5000		108	70	141			

Sample ID **1606617-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **MKTF-28**	Batch ID: **25809**	RunNo: **34862**
Prep Date: **6/13/2016**	Analysis Date: **6/13/2016**	SeqNo: **1077084** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.4	1.0	5.000	0	107	59.4	160	2.03	20	
Surr: DNOP	0.53		0.5000		107	70	141	0	0	

Sample ID **LCS-25809**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **25809**	RunNo: **34862**
Prep Date: **6/13/2016**	Analysis Date: **6/13/2016**	SeqNo: **1077098** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.4	71.3	139			
Surr: DNOP	0.50		0.5000		99.0	70	141			

Sample ID **MB-25809**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **25809**	RunNo: **34862**
Prep Date: **6/13/2016**	Analysis Date: **6/13/2016**	SeqNo: **1077099** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		112	70	141			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606617**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **A34904**	RunNo: **34904**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078014** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	21		20.00		103	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **A34904**	RunNo: **34904**
Prep Date:	Analysis Date: **6/14/2016**	SeqNo: **1078015** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.45	0.050	0.5000	0	90.8	80	120			
Surr: BFB	23		20.00		113	66.4	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606617**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R35008**	RunNo: **35008**
Prep Date:	Analysis Date: **6/17/2016**	SeqNo: **1082049** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	16	1.0	20.00	0	78.1	70	130			
Toluene	16	1.0	20.00	0	79.8	70	130			
Chlorobenzene	16	1.0	20.00	0	77.8	70	130			
1,1-Dichloroethene	15	1.0	20.00	0	74.2	70	130			
Trichloroethene (TCE)	15	1.0	20.00	0	74.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.3		10.00		92.8	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R35008**	RunNo: **35008**
Prep Date:	Analysis Date: **6/17/2016**	SeqNo: **1082050** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606617**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R35008**	RunNo: **35008**
Prep Date:	Analysis Date: **6/17/2016**	SeqNo: **1082050** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606617**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R35008**	RunNo: **35008**
Prep Date:	Analysis Date: **6/17/2016**	SeqNo: **1082050** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.8		10.00		87.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.0	70	130			
Surr: Toluene-d8	9.8		10.00		98.1	70	130			

Sample ID **1606617-001AMS**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-28**	Batch ID: **R35008**	RunNo: **35008**
Prep Date:	Analysis Date: **6/17/2016**	SeqNo: **1082062** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	100	70	130			
Toluene	21	1.0	20.00	0	106	70	130			
Chlorobenzene	21	1.0	20.00	0	107	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	92.4	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	99.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		89.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.1	70	130			
Surr: Toluene-d8	9.9		10.00		98.9	70	130			

Sample ID **1606617-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-28**	Batch ID: **R35008**	RunNo: **35008**
Prep Date:	Analysis Date: **6/17/2016**	SeqNo: **1082063** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.6	70	130	0.690	20	
Toluene	21	1.0	20.00	0	105	70	130	0.475	20	
Chlorobenzene	21	1.0	20.00	0	104	70	130	2.22	20	
1,1-Dichloroethene	19	1.0	20.00	0	95.1	70	130	2.79	20	
Trichloroethene (TCE)	20	1.0	20.00	0	97.7	70	130	1.30	20	
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.0	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130	0	0	
Surr: Dibromofluoromethane	9.3		10.00		92.5	70	130	0	0	
Surr: Toluene-d8	10		10.00		101	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606617**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **mb-25862**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **25862**	RunNo: **35016**
Prep Date: **6/15/2016**	Analysis Date: **6/20/2016**	SeqNo: **1082703** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	6.6	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	2.8	10								J
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606617**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **mb-25862**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **25862**	RunNo: **35016**
Prep Date: **6/15/2016**	Analysis Date: **6/20/2016**	SeqNo: **1082703** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	110		200.0		55.3	15	123			
Surr: Phenol-d5	100		200.0		50.6	4.13	124			
Surr: 2,4,6-Tribromophenol	140		200.0		71.0	18.4	134			
Surr: Nitrobenzene-d5	74		100.0		74.1	28.8	134			
Surr: 2-Fluorobiphenyl	70		100.0		69.7	35.9	125			
Surr: 4-Terphenyl-d14	84		100.0		83.7	15	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1606617**

27-Jul-16

Client: Western Refining Southwest, Gallup

Project: 2016 2ND QTR (MKTF)

Sample ID **lcs-25862**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **25862**	RunNo: **35016**
Prep Date: **6/15/2016**	Analysis Date: **6/20/2016**	SeqNo: **1082704** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	66.8	35	113			
4-Chloro-3-methylphenol	130	10	200.0	0	64.5	40.7	114			
2-Chlorophenol	130	10	200.0	0	65.3	37.6	113			
1,4-Dichlorobenzene	53	10	100.0	0	53.0	37.7	106			
2,4-Dinitrotoluene	69	10	100.0	0	69.0	37	91			
N-Nitrosodi-n-propylamine	70	10	100.0	0	70.1	45.4	105			
4-Nitrophenol	71	10	200.0	0	35.6	33.4	104			
Pentachlorophenol	100	20	200.0	0	51.9	29.5	94.9			
Phenol	100	10	200.0	0	49.8	30.6	119			
Pyrene	72	10	100.0	0	72.1	26.2	120			
1,2,4-Trichlorobenzene	63	10	100.0	0	62.7	39.9	125			
Surr: 2-Fluorophenol	100		200.0		51.8	15	123			
Surr: Phenol-d5	100		200.0		49.8	4.13	124			
Surr: 2,4,6-Tribromophenol	130		200.0		63.6	18.4	134			
Surr: Nitrobenzene-d5	68		100.0		67.6	28.8	134			
Surr: 2-Fluorobiphenyl	64		100.0		63.6	35.9	125			
Surr: 4-Terphenyl-d14	77		100.0		76.7	15	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1606617** RcptNo: **1**

Received by/date: AF 06/10/16

Logged By: **Anne Thorne** 6/10/2016 3:35:00 PM Anne Thorne

Completed By: **Anne Thorne** 6/13/2016 Anne Thorne

Reviewed By: JA 06/13/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	~~Yes~~ ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	~~No~~ ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

For metals analysis: Added 1mL HNO3 to 40mL for acceptable pH. Held for 24 hours prior to analysis. JA 06/13/16 @ 1010

# of preserved bottles checked for pH: 9 (<2 or >12 unless noted)

Adjusted? YES

Checked by: JA

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING ROAD, GALLUP, NM 87301

Phone #: 505-722-3833

Email or Fax#: 505-863-0930

QA/QC Package: AT 06/13/16

☐ Standard ☒ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

X Standard ☐ Rush

Project Name:

2016 2ND QTR (MKTF)

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON/G VIGIL

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.1°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1606617	8260+MTBE	8015D EXTENDED	8270 + Phenols	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	MAJOR CATIONS/ANIONS		8011/504.1 AT 06/13/16								Air Bubbles (Y or N)
6/8/2016	1345	AQUEOUS	MKTF-28	3-40ml VOAs	HCL	-001	X	X	X	X	X	X										
6/8/2016	1418	AQUEOUS	MKTF-27	3-40ml VOAs	HCL	-002	X	X	X	X	X	X										
6/8/2016	1500	AQUEOUS	MKTF-24	1L AMBER	None	-003	X	X	X	X	X	X		X								

Date:	Time:	Relinquished by:	Received by:	Date Time
6/10/16	1200			6/10/16 1:30
Date:	Time:	Relinquished by:	Received by:	Date Time
6/10/16	3:35			6/10/16 1535

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 25, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 3RD QTR (OW) OrderNo.: 1609A26

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 9/18/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-55
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 10:15:00 AM
Lab ID: 1609A26-001
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	5.3	0.69	1.0		mg/L	1	9/20/2016 4:37:12 PM	27591
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/20/2016 4:37:12 PM	27591
Surr: DNOP	120	0	77.1-144		%Rec	1	9/20/2016 4:37:12 PM	27591
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.60	0.0013	0.0020		mg/L	1	10/13/2016 1:51:09 PM	C37932
Cadmium	ND	0.00075	0.0020		mg/L	1	10/13/2016 1:51:09 PM	C37932
Chromium	ND	0.0018	0.0060		mg/L	1	10/13/2016 1:51:09 PM	C37932
Copper	ND	0.0040	0.0060		mg/L	1	10/13/2016 1:51:09 PM	C37932
Iron	3.8	0.10	0.10	*	mg/L	5	10/13/2016 1:52:52 PM	C37932
Manganese	4.1	0.0016	0.010	*	mg/L	5	10/13/2016 1:52:52 PM	C37932
Silver	ND	0.0028	0.0050		mg/L	1	10/13/2016 1:51:09 PM	C37932
Zinc	0.0035	0.0028	0.010	J	mg/L	1	10/13/2016 1:51:09 PM	C37932
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	1.2	0.0040	0.010		mg/L	5	10/6/2016 5:44:15 PM	27884
Cadmium	ND	0.0015	0.0020		mg/L	1	10/5/2016 5:59:53 PM	27884
Chromium	0.0090	0.0027	0.0060		mg/L	1	10/5/2016 5:59:53 PM	27884
Copper	0.0094	0.0030	0.0060		mg/L	1	10/5/2016 5:59:53 PM	27884
Iron	13	0.40	0.40	*	mg/L	20	10/6/2016 5:51:54 PM	27884
Manganese	5.2	0.0055	0.040	*	mg/L	20	10/6/2016 5:51:54 PM	27884
Silver	ND	0.0015	0.0050		mg/L	1	10/6/2016 5:31:05 PM	27884
Zinc	0.066	0.0027	0.010		mg/L	1	10/5/2016 5:59:53 PM	27884
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0074	0.00014	0.0010		mg/L	1	9/30/2016 4:41:19 PM	C37623
Lead	0.00022	0.00017	0.00050	J	mg/L	1	9/30/2016 4:41:19 PM	C37623
Selenium	0.0082	0.00021	0.0010		mg/L	1	9/30/2016 4:41:19 PM	C37623
Uranium	0.0074	0.000051	0.00050		mg/L	1	9/30/2016 4:41:19 PM	C37623
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0078	0.0011	0.0050		mg/L	5	10/6/2016 6:07:55 PM	27884
Lead	0.024	0.000081	0.00050	*	mg/L	1	10/6/2016 5:52:48 PM	27884
Selenium	0.0038	0.00094	0.0050	J	mg/L	5	10/6/2016 6:07:55 PM	27884
Uranium	0.0094	0.00017	0.00050		mg/L	1	10/6/2016 5:52:48 PM	27884
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00011	0.000053	0.00020	J	mg/L	1	9/29/2016 1:28:58 PM	27776
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	12000	96	1000		µg/L	1000	9/22/2016 4:37:39 PM	W37409
Toluene	4600	120	1000		µg/L	1000	9/22/2016 4:37:39 PM	W37409

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-55
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 10:15:00 AM
Lab ID: 1609A26-001
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Ethylbenzene	950	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Methyl tert-butyl ether (MTBE)	1200	2.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2,4-Trimethylbenzene	880	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,3,5-Trimethylbenzene	280	1.2	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2-Dichloroethane (EDC)	5.6	1.2	10	J	µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Naphthalene	120	0.93	20		µg/L	10	9/21/2016 4:44:20 PM	R37365
1-Methylnaphthalene	30	2.0	40	J	µg/L	10	9/21/2016 4:44:20 PM	R37365
2-Methylnaphthalene	45	1.6	40		µg/L	10	9/21/2016 4:44:20 PM	R37365
Acetone	ND	49	100		µg/L	10	9/21/2016 4:44:20 PM	R37365
Bromobenzene	ND	0.98	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Bromodichloromethane	ND	1.4	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Bromoform	ND	1.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Bromomethane	ND	7.8	30		µg/L	10	9/21/2016 4:44:20 PM	R37365
2-Butanone	ND	7.4	100		µg/L	10	9/21/2016 4:44:20 PM	R37365
Carbon disulfide	ND	6.0	100		µg/L	10	9/21/2016 4:44:20 PM	R37365
Carbon Tetrachloride	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Chlorobenzene	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Chloroethane	ND	1.9	20		µg/L	10	9/21/2016 4:44:20 PM	R37365
Chloroform	ND	0.89	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Chloromethane	ND	2.1	30		µg/L	10	9/21/2016 4:44:20 PM	R37365
2-Chlorotoluene	ND	4.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
4-Chlorotoluene	ND	1.3	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
cis-1,2-DCE	ND	1.2	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	9/21/2016 4:44:20 PM	R37365
Dibromochloromethane	ND	0.87	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Dibromomethane	ND	1.2	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1-Dichloroethane	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1-Dichloroethene	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2-Dichloropropane	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,3-Dichloropropane	ND	1.6	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
2,2-Dichloropropane	ND	1.7	20		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1-Dichloropropene	ND	1.3	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Hexachlorobutadiene	ND	2.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-55
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 10:15:00 AM
Lab ID: 1609A26-001 **Matrix:** AQUEOUS **Received Date:** 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
2-Hexanone	ND	8.4	100		µg/L	10	9/21/2016 4:44:20 PM	R37365
Isopropylbenzene	35	1.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
4-Isopropyltoluene	5.9	1.4	10	J	µg/L	10	9/21/2016 4:44:20 PM	R37365
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	9/21/2016 4:44:20 PM	R37365
Methylene Chloride	ND	1.9	30		µg/L	10	9/21/2016 4:44:20 PM	R37365
n-Butylbenzene	17	1.6	30	J	µg/L	10	9/21/2016 4:44:20 PM	R37365
n-Propylbenzene	120	1.3	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
sec-Butylbenzene	9.3	1.2	10	J	µg/L	10	9/21/2016 4:44:20 PM	R37365
Styrene	4.1	1.1	10	J	µg/L	10	9/21/2016 4:44:20 PM	R37365
tert-Butylbenzene	ND	1.2	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	9/21/2016 4:44:20 PM	R37365
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
trans-1,2-DCE	ND	4.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1,1-Trichloroethane	ND	0.91	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Trichlorofluoromethane	ND	2.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	9/21/2016 4:44:20 PM	R37365
Vinyl chloride	ND	2.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Xylenes, Total	4500	370	1500		µg/L	1000	9/22/2016 4:37:39 PM	W37409
Surr: 1,2-Dichloroethane-d4	89.7	0	70-130		%Rec	10	9/21/2016 4:44:20 PM	R37365
Surr: 4-Bromofluorobenzene	77.6	0	70-130		%Rec	10	9/21/2016 4:44:20 PM	R37365
Surr: Dibromofluoromethane	82.8	0	70-130		%Rec	10	9/21/2016 4:44:20 PM	R37365
Surr: Toluene-d8	93.9	0	70-130		%Rec	10	9/21/2016 4:44:20 PM	R37365
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	76	0.15	0.50		mg/L	10	9/21/2016 4:44:20 PM	W37365
Surr: BFB	103	0	70-130		%Rec	10	9/21/2016 4:44:20 PM	W37365

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB091616
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 10:30:00 AM
Lab ID: 1609A26-002
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/20/2016 5:41:47 PM	27591
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/20/2016 5:41:47 PM	27591
Surr: DNOP	127	0	77.1-144		%Rec	1	9/20/2016 5:41:47 PM	27591
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	ND	0.0013	0.0020		mg/L	1	10/13/2016 1:54:57 PM	C37932
Cadmium	ND	0.00075	0.0020		mg/L	1	10/13/2016 1:54:57 PM	C37932
Chromium	ND	0.0018	0.0060		mg/L	1	10/13/2016 1:54:57 PM	C37932
Copper	ND	0.0040	0.0060		mg/L	1	10/13/2016 1:54:57 PM	C37932
Iron	ND	0.020	0.020		mg/L	1	10/13/2016 1:54:57 PM	C37932
Manganese	ND	0.00032	0.0020		mg/L	1	10/13/2016 1:54:57 PM	C37932
Silver	ND	0.0028	0.0050		mg/L	1	10/13/2016 1:54:57 PM	C37932
Zinc	ND	0.0028	0.010		mg/L	1	10/13/2016 1:54:57 PM	C37932
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	ND	0.00079	0.0020		mg/L	1	10/5/2016 6:05:27 PM	27884
Cadmium	ND	0.0015	0.0020		mg/L	1	10/5/2016 6:05:27 PM	27884
Chromium	ND	0.0027	0.0060		mg/L	1	10/5/2016 6:05:27 PM	27884
Copper	ND	0.0030	0.0060		mg/L	1	10/5/2016 6:05:27 PM	27884
Iron	ND	0.020	0.020		mg/L	1	10/5/2016 6:05:27 PM	27884
Manganese	ND	0.00027	0.0020		mg/L	1	10/5/2016 6:05:27 PM	27884
Silver	ND	0.0015	0.0050		mg/L	1	10/5/2016 6:05:27 PM	27884
Zinc	ND	0.0027	0.010		mg/L	1	10/5/2016 6:05:27 PM	27884
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	ND	0.00014	0.0010		mg/L	1	9/30/2016 4:44:23 PM	C37623
Lead	ND	0.00017	0.00050		mg/L	1	9/30/2016 4:44:23 PM	C37623
Selenium	ND	0.00021	0.0010		mg/L	1	9/30/2016 4:44:23 PM	C37623
Uranium	ND	0.000051	0.00050		mg/L	1	9/30/2016 4:44:23 PM	C37623
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.00021	0.0010		mg/L	1	10/6/2016 5:55:48 PM	27884
Lead	ND	0.000081	0.00050		mg/L	1	10/6/2016 5:55:48 PM	27884
Selenium	ND	0.00019	0.0010		mg/L	1	10/6/2016 5:55:48 PM	27884
Uranium	ND	0.00017	0.00050		mg/L	1	10/6/2016 5:55:48 PM	27884
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000097	0.000053	0.00020	J	mg/L	1	9/29/2016 1:31:03 PM	27776
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Toluene	0.37	0.12	1.0	J	µg/L	1	9/22/2016 11:20:14 AM	W37409

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB091616
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 10:30:00 AM
Lab ID: 1609A26-002
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Naphthalene	ND	0.093	2.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Acetone	7.6	4.9	10	J	µg/L	1	9/22/2016 11:20:14 AM	W37409
Bromobenzene	ND	0.098	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Bromoform	ND	0.10	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Bromomethane	ND	0.78	3.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
2-Butanone	0.91	0.74	10	J	µg/L	1	9/22/2016 11:20:14 AM	W37409
Carbon disulfide	ND	0.60	10		µg/L	1	9/22/2016 11:20:14 AM	W37409
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Chloroethane	ND	0.19	2.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Chloroform	ND	0.089	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Chloromethane	ND	0.21	3.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Dibromomethane	ND	0.12	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB091616
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 10:30:00 AM
Lab ID: 1609A26-002 **Matrix:** AQUEOUS **Received Date:** 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
2-Hexanone	ND	0.84	10		µg/L	1	9/22/2016 11:20:14 AM	W37409
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/22/2016 11:20:14 AM	W37409
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Styrene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/22/2016 11:20:14 AM	W37409
Surr: 1,2-Dichloroethane-d4	95.6	0	70-130		%Rec	1	9/22/2016 11:20:14 AM	W37409
Surr: 4-Bromofluorobenzene	100	0	70-130		%Rec	1	9/22/2016 11:20:14 AM	W37409
Surr: Dibromofluoromethane	104	0	70-130		%Rec	1	9/22/2016 11:20:14 AM	W37409
Surr: Toluene-d8	101	0	70-130		%Rec	1	9/22/2016 11:20:14 AM	W37409
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.037	0.015	0.050	J	mg/L	1	9/21/2016 5:13:07 PM	W37365
Surr: BFB	100	0	70-130		%Rec	1	9/21/2016 5:13:07 PM	W37365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-56
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 8:10:00 AM
Lab ID: 1609A26-003
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	0.77	0.69	1.0	J	mg/L	1	9/20/2016 6:03:27 PM	27591
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/20/2016 6:03:27 PM	27591
Surr: DNOP	128	0	77.1-144		%Rec	1	9/20/2016 6:03:27 PM	27591
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.36	0.0013	0.0020		mg/L	1	10/13/2016 1:58:42 PM	C37932
Cadmium	ND	0.00075	0.0020		mg/L	1	10/13/2016 1:58:42 PM	C37932
Chromium	ND	0.0018	0.0060		mg/L	1	10/13/2016 1:58:42 PM	C37932
Copper	0.0047	0.0040	0.0060	J	mg/L	1	10/13/2016 1:58:42 PM	C37932
Iron	0.078	0.020	0.020		mg/L	1	10/13/2016 1:58:42 PM	C37932
Manganese	0.39	0.00032	0.0020	*	mg/L	1	10/13/2016 1:58:42 PM	C37932
Silver	ND	0.0028	0.0050		mg/L	1	10/13/2016 1:58:42 PM	C37932
Zinc	0.011	0.0028	0.010		mg/L	1	10/13/2016 1:58:42 PM	C37932
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.37	0.00079	0.0020		mg/L	1	10/5/2016 6:11:17 PM	27884
Cadmium	ND	0.0015	0.0020		mg/L	1	10/5/2016 6:11:17 PM	27884
Chromium	ND	0.0027	0.0060		mg/L	1	10/5/2016 6:11:17 PM	27884
Copper	0.0049	0.0030	0.0060	J	mg/L	1	10/5/2016 6:11:17 PM	27884
Iron	0.33	0.020	0.020	*	mg/L	1	10/5/2016 6:11:17 PM	27884
Manganese	0.42	0.00027	0.0020	*	mg/L	1	10/5/2016 6:11:17 PM	27884
Silver	ND	0.0015	0.0050		mg/L	1	10/5/2016 6:11:17 PM	27884
Zinc	0.012	0.0027	0.010		mg/L	1	10/5/2016 6:11:17 PM	27884
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0049	0.00069	0.0050	J	mg/L	5	10/7/2016 6:19:29 PM	C37789
Lead	0.00046	0.00017	0.00050	J	mg/L	1	9/30/2016 4:53:38 PM	C37623
Selenium	0.0046	0.0042	0.020	J	mg/L	20	10/7/2016 6:22:33 PM	C37789
Uranium	0.023	0.000051	0.00050		mg/L	1	9/30/2016 4:53:38 PM	C37623
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0046	0.0021	0.010	J	mg/L	10	10/7/2016 11:02:58 AM	27884
Lead	0.0010	0.000081	0.00050		mg/L	1	10/6/2016 6:10:57 PM	27884
Selenium	0.0046	0.0019	0.010	J	mg/L	10	10/7/2016 11:02:58 AM	27884
Uranium	0.024	0.00087	0.0025		mg/L	5	10/7/2016 10:56:57 AM	27884
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00010	0.000053	0.00020	J	mg/L	1	9/29/2016 1:33:10 PM	27776
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	2.5	0.48	5.0	JD	µg/L	5	9/21/2016 6:39:35 PM	R37365
Toluene	0.92	0.59	5.0	JD	µg/L	5	9/21/2016 6:39:35 PM	R37365

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-56
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 8:10:00 AM
Lab ID: 1609A26-003 **Matrix:** AQUEOUS **Received Date:** 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Ethylbenzene	ND	0.56	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Methyl tert-butyl ether (MTBE)	150	1.1	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2,4-Trimethylbenzene	1.1	0.55	5.0	JD	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,3,5-Trimethylbenzene	ND	0.58	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2-Dichloroethane (EDC)	16	0.58	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2-Dibromoethane (EDB)	ND	0.56	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Naphthalene	ND	0.46	10	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1-Methylnaphthalene	ND	1.0	20	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
2-Methylnaphthalene	ND	0.79	20	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Acetone	ND	25	50	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Bromobenzene	ND	0.49	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Bromodichloromethane	ND	0.70	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Bromoform	ND	0.51	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Bromomethane	ND	3.9	15	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
2-Butanone	ND	3.7	50	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Carbon disulfide	ND	3.0	50	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Carbon Tetrachloride	ND	0.54	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Chlorobenzene	ND	0.57	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Chloroethane	ND	0.96	10	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Chloroform	ND	0.44	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Chloromethane	ND	1.1	15	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
2-Chlorotoluene	ND	2.0	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
4-Chlorotoluene	ND	0.64	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
cis-1,2-DCE	ND	0.62	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
cis-1,3-Dichloropropene	ND	0.53	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2-Dibromo-3-chloropropane	ND	1.2	10	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Dibromochloromethane	ND	0.43	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Dibromomethane	ND	0.60	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2-Dichlorobenzene	ND	2.0	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,3-Dichlorobenzene	ND	0.72	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,4-Dichlorobenzene	ND	0.71	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Dichlorodifluoromethane	ND	1.8	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1-Dichloroethane	ND	0.54	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1-Dichloroethene	ND	0.54	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2-Dichloropropane	ND	0.55	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,3-Dichloropropane	ND	0.78	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
2,2-Dichloropropane	ND	0.83	10	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1-Dichloropropene	ND	0.67	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Hexachlorobutadiene	ND	0.99	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-56
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 8:10:00 AM
Lab ID: 1609A26-003
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
2-Hexanone	ND	4.2	50	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Isopropylbenzene	1.1	0.52	5.0	JD	µg/L	5	9/21/2016 6:39:35 PM	R37365
4-Isopropyltoluene	ND	0.70	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
4-Methyl-2-pentanone	ND	2.1	50	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Methylene Chloride	ND	0.94	15	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
n-Butylbenzene	ND	0.80	15	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
n-Propylbenzene	ND	0.66	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
sec-Butylbenzene	ND	0.62	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Styrene	ND	0.55	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
tert-Butylbenzene	ND	0.58	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1,1,2-Tetrachloroethane	ND	0.56	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1,2,2-Tetrachloroethane	ND	0.64	10	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Tetrachloroethene (PCE)	ND	0.76	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
trans-1,2-DCE	ND	2.0	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
trans-1,3-Dichloropropene	ND	0.52	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2,3-Trichlorobenzene	ND	0.56	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2,4-Trichlorobenzene	ND	0.66	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1,1-Trichloroethane	ND	0.46	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1,2-Trichloroethane	ND	0.64	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Trichloroethene (TCE)	ND	0.88	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Trichlorofluoromethane	ND	1.0	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2,3-Trichloropropane	ND	1.0	10	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Vinyl chloride	ND	0.98	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Xylenes, Total	ND	1.8	7.5	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Surr: 1,2-Dichloroethane-d4	94.5	0	70-130	D	%Rec	5	9/21/2016 6:39:35 PM	R37365
Surr: 4-Bromofluorobenzene	99.3	0	70-130	D	%Rec	5	9/21/2016 6:39:35 PM	R37365
Surr: Dibromofluoromethane	94.9	0	70-130	D	%Rec	5	9/21/2016 6:39:35 PM	R37365
Surr: Toluene-d8	97.1	0	70-130	D	%Rec	5	9/21/2016 6:39:35 PM	R37365
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	1.2	0.075	0.25		mg/L	5	9/21/2016 6:39:35 PM	W37365
Surr: BFB	99.3	0	70-130		%Rec	5	9/21/2016 6:39:35 PM	W37365

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-54
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 9:40:00 AM
Lab ID: 1609A26-004
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	1.6	0.69	1.0		mg/L	1	9/20/2016 6:25:00 PM	27591
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/20/2016 6:25:00 PM	27591
Surr: DNOP	124	0	77.1-144		%Rec	1	9/20/2016 6:25:00 PM	27591
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.14	0.0013	0.0020		mg/L	1	10/13/2016 2:02:44 PM	C37932
Cadmium	ND	0.00075	0.0020		mg/L	1	10/13/2016 2:02:44 PM	C37932
Chromium	ND	0.0018	0.0060		mg/L	1	10/13/2016 2:02:44 PM	C37932
Copper	0.0088	0.0040	0.0060		mg/L	1	10/13/2016 2:02:44 PM	C37932
Iron	0.23	0.020	0.020		mg/L	1	10/13/2016 2:02:44 PM	C37932
Manganese	1.3	0.0016	0.010	*	mg/L	5	10/13/2016 2:04:44 PM	C37932
Silver	ND	0.0028	0.0050		mg/L	1	10/13/2016 2:02:44 PM	C37932
Zinc	0.0035	0.0028	0.010	J	mg/L	1	10/13/2016 2:02:44 PM	C37932
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	1.1	0.0040	0.010		mg/L	5	10/6/2016 5:53:56 PM	27884
Cadmium	ND	0.0015	0.0020		mg/L	1	10/5/2016 6:18:57 PM	27884
Chromium	0.013	0.0027	0.0060		mg/L	1	10/5/2016 6:18:57 PM	27884
Copper	0.032	0.0030	0.0060		mg/L	1	10/5/2016 6:18:57 PM	27884
Iron	11	0.40	0.40	*	mg/L	20	10/6/2016 5:55:45 PM	27884
Manganese	2.3	0.0014	0.010	*	mg/L	5	10/6/2016 5:53:56 PM	27884
Silver	ND	0.0015	0.0050		mg/L	1	10/5/2016 6:18:57 PM	27884
Zinc	0.036	0.0027	0.010		mg/L	1	10/5/2016 6:18:57 PM	27884
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0049	0.00069	0.0050	J	mg/L	5	10/7/2016 6:25:36 PM	C37789
Lead	0.0052	0.00017	0.00050		mg/L	1	9/30/2016 4:56:41 PM	C37623
Selenium	0.0068	0.0042	0.020	J	mg/L	20	10/7/2016 6:28:40 PM	C37789
Uranium	0.062	0.00026	0.0025	*	mg/L	5	10/7/2016 6:25:36 PM	C37789
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0057	0.0021	0.010	J	mg/L	10	10/7/2016 11:21:05 AM	27884
Lead	0.032	0.00041	0.0025	*	mg/L	5	10/7/2016 11:05:59 AM	27884
Selenium	0.0063	0.0019	0.010	J	mg/L	10	10/7/2016 11:21:05 AM	27884
Uranium	0.065	0.00087	0.0025	*	mg/L	5	10/7/2016 11:05:59 AM	27884
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00013	0.000053	0.00020	J	mg/L	1	9/29/2016 1:35:16 PM	27776
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	100	0.48	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Toluene	8.0	0.59	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-54
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 9:40:00 AM
Lab ID: 1609A26-004 **Matrix:** AQUEOUS **Received Date:** 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Ethylbenzene	29	0.56	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Methyl tert-butyl ether (MTBE)	2000	11	50		µg/L	50	9/22/2016 5:06:24 PM	W37409
1,2,4-Trimethylbenzene	15	0.55	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,3,5-Trimethylbenzene	6.5	0.58	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Naphthalene	4.2	0.46	10	J	µg/L	5	9/21/2016 7:08:24 PM	R37365
1-Methylnaphthalene	ND	1.0	20		µg/L	5	9/21/2016 7:08:24 PM	R37365
2-Methylnaphthalene	ND	0.79	20		µg/L	5	9/21/2016 7:08:24 PM	R37365
Acetone	ND	25	50		µg/L	5	9/21/2016 7:08:24 PM	R37365
Bromobenzene	ND	0.49	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Bromodichloromethane	ND	0.70	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Bromoform	ND	0.51	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Bromomethane	ND	3.9	15		µg/L	5	9/21/2016 7:08:24 PM	R37365
2-Butanone	ND	3.7	50		µg/L	5	9/21/2016 7:08:24 PM	R37365
Carbon disulfide	ND	3.0	50		µg/L	5	9/21/2016 7:08:24 PM	R37365
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Chlorobenzene	ND	0.57	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Chloroethane	ND	0.96	10		µg/L	5	9/21/2016 7:08:24 PM	R37365
Chloroform	ND	0.44	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Chloromethane	ND	1.1	15		µg/L	5	9/21/2016 7:08:24 PM	R37365
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	9/21/2016 7:08:24 PM	R37365
Dibromochloromethane	ND	0.43	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Dibromomethane	ND	0.60	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
2,2-Dichloropropane	ND	0.83	10		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-54
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 9:40:00 AM
Lab ID: 1609A26-004
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
2-Hexanone	ND	4.2	50		µg/L	5	9/21/2016 7:08:24 PM	R37365
Isopropylbenzene	1.2	0.52	5.0	J	µg/L	5	9/21/2016 7:08:24 PM	R37365
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	9/21/2016 7:08:24 PM	R37365
Methylene Chloride	ND	0.94	15		µg/L	5	9/21/2016 7:08:24 PM	R37365
n-Butylbenzene	ND	0.80	15		µg/L	5	9/21/2016 7:08:24 PM	R37365
n-Propylbenzene	3.7	0.66	5.0	J	µg/L	5	9/21/2016 7:08:24 PM	R37365
sec-Butylbenzene	1.7	0.62	5.0	J	µg/L	5	9/21/2016 7:08:24 PM	R37365
Styrene	ND	0.55	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	9/21/2016 7:08:24 PM	R37365
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	9/21/2016 7:08:24 PM	R37365
Vinyl chloride	ND	0.98	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Xylenes, Total	28	1.8	7.5		µg/L	5	9/21/2016 7:08:24 PM	R37365
Surr: 1,2-Dichloroethane-d4	89.8	0	70-130		%Rec	5	9/21/2016 7:08:24 PM	R37365
Surr: 4-Bromofluorobenzene	95.3	0	70-130		%Rec	5	9/21/2016 7:08:24 PM	R37365
Surr: Dibromofluoromethane	86.0	0	70-130		%Rec	5	9/21/2016 7:08:24 PM	R37365
Surr: Toluene-d8	98.4	0	70-130		%Rec	5	9/21/2016 7:08:24 PM	R37365
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	3.2	0.075	0.25		mg/L	5	9/21/2016 7:08:24 PM	W37365
Surr: BFB	100	0	70-130		%Rec	5	9/21/2016 7:08:24 PM	W37365

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP06
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016
Lab ID: 1609A26-005
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	1.7	0.69	1.0		mg/L	1	9/20/2016 6:46:40 PM	27591
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/20/2016 6:46:40 PM	27591
Surr: DNOP	129	0	77.1-144		%Rec	1	9/20/2016 6:46:40 PM	27591
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.14	0.0013	0.0020		mg/L	1	10/13/2016 2:12:36 PM	C37932
Cadmium	ND	0.00075	0.0020		mg/L	1	10/13/2016 2:12:36 PM	C37932
Chromium	ND	0.0018	0.0060		mg/L	1	10/13/2016 2:12:36 PM	C37932
Copper	0.0093	0.0040	0.0060		mg/L	1	10/13/2016 2:12:36 PM	C37932
Iron	0.24	0.020	0.020		mg/L	1	10/13/2016 2:12:36 PM	C37932
Manganese	1.4	0.0016	0.010	*	mg/L	5	10/13/2016 2:14:41 PM	C37932
Silver	ND	0.0028	0.0050		mg/L	1	10/13/2016 2:12:36 PM	C37932
Zinc	0.0035	0.0028	0.010	J	mg/L	1	10/13/2016 2:12:36 PM	C37932
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	1.3	0.0040	0.010		mg/L	5	10/6/2016 5:57:44 PM	27884
Cadmium	ND	0.0015	0.0020		mg/L	1	10/5/2016 6:20:48 PM	27884
Chromium	0.017	0.0027	0.0060		mg/L	1	10/5/2016 6:20:48 PM	27884
Copper	0.036	0.0030	0.0060		mg/L	1	10/5/2016 6:20:48 PM	27884
Iron	14	0.40	0.40	*	mg/L	20	10/6/2016 6:05:16 PM	27884
Manganese	2.4	0.0014	0.010	*	mg/L	5	10/6/2016 5:57:44 PM	27884
Silver	ND	0.0015	0.0050		mg/L	1	10/5/2016 6:20:48 PM	27884
Zinc	0.039	0.0027	0.010		mg/L	1	10/5/2016 6:20:48 PM	27884
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0049	0.00069	0.0050	J	mg/L	5	10/7/2016 6:31:43 PM	C37789
Lead	0.0053	0.00017	0.00050		mg/L	1	9/30/2016 4:59:45 PM	C37623
Selenium	0.0083	0.0042	0.020	J	mg/L	20	10/7/2016 6:40:58 PM	C37789
Uranium	0.063	0.00026	0.0025	*	mg/L	5	10/7/2016 6:31:43 PM	C37789
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0058	0.0021	0.010	J	mg/L	10	10/7/2016 11:27:06 AM	27884
Lead	0.036	0.00041	0.0025	*	mg/L	5	10/7/2016 11:24:06 AM	27884
Selenium	0.0070	0.0019	0.010	J	mg/L	10	10/7/2016 11:27:06 AM	27884
Uranium	0.066	0.00087	0.0025	*	mg/L	5	10/7/2016 11:24:06 AM	27884
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00013	0.000053	0.00020	J	mg/L	1	9/29/2016 1:37:23 PM	27776
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	110	0.96	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Toluene	9.8	1.2	10	J	µg/L	10	9/21/2016 7:37:10 PM	R37365

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP06
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016
Lab ID: 1609A26-005
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Ethylbenzene	29	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Methyl tert-butyl ether (MTBE)	1900	21	100		µg/L	100	9/22/2016 5:35:14 PM	W37409
1,2,4-Trimethylbenzene	14	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,3,5-Trimethylbenzene	7.1	1.2	10	J	µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2-Dichloroethane (EDC)	ND	1.2	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Naphthalene	5.5	0.93	20	J	µg/L	10	9/21/2016 7:37:10 PM	R37365
1-Methylnaphthalene	ND	2.0	40		µg/L	10	9/21/2016 7:37:10 PM	R37365
2-Methylnaphthalene	ND	1.6	40		µg/L	10	9/21/2016 7:37:10 PM	R37365
Acetone	ND	49	100		µg/L	10	9/21/2016 7:37:10 PM	R37365
Bromobenzene	ND	0.98	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Bromodichloromethane	ND	1.4	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Bromoform	ND	1.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Bromomethane	ND	7.8	30		µg/L	10	9/21/2016 7:37:10 PM	R37365
2-Butanone	ND	7.4	100		µg/L	10	9/21/2016 7:37:10 PM	R37365
Carbon disulfide	ND	6.0	100		µg/L	10	9/21/2016 7:37:10 PM	R37365
Carbon Tetrachloride	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Chlorobenzene	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Chloroethane	ND	1.9	20		µg/L	10	9/21/2016 7:37:10 PM	R37365
Chloroform	ND	0.89	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Chloromethane	ND	2.1	30		µg/L	10	9/21/2016 7:37:10 PM	R37365
2-Chlorotoluene	ND	4.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
4-Chlorotoluene	ND	1.3	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
cis-1,2-DCE	ND	1.2	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	9/21/2016 7:37:10 PM	R37365
Dibromochloromethane	ND	0.87	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Dibromomethane	ND	1.2	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1-Dichloroethane	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1-Dichloroethene	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2-Dichloropropane	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,3-Dichloropropane	ND	1.6	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
2,2-Dichloropropane	ND	1.7	20		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1-Dichloropropene	ND	1.3	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Hexachlorobutadiene	ND	2.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP06
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016
Lab ID: 1609A26-005
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
2-Hexanone	ND	8.4	100		µg/L	10	9/21/2016 7:37:10 PM	R37365
Isopropylbenzene	1.6	1.0	10	J	µg/L	10	9/21/2016 7:37:10 PM	R37365
4-Isopropyltoluene	ND	1.4	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	9/21/2016 7:37:10 PM	R37365
Methylene Chloride	ND	1.9	30		µg/L	10	9/21/2016 7:37:10 PM	R37365
n-Butylbenzene	ND	1.6	30		µg/L	10	9/21/2016 7:37:10 PM	R37365
n-Propylbenzene	3.8	1.3	10	J	µg/L	10	9/21/2016 7:37:10 PM	R37365
sec-Butylbenzene	2.6	1.2	10	J	µg/L	10	9/21/2016 7:37:10 PM	R37365
Styrene	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
tert-Butylbenzene	ND	1.2	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	9/21/2016 7:37:10 PM	R37365
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
trans-1,2-DCE	ND	4.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1,1-Trichloroethane	ND	0.91	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Trichlorofluoromethane	ND	2.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	9/21/2016 7:37:10 PM	R37365
Vinyl chloride	ND	2.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Xylenes, Total	31	3.7	15		µg/L	10	9/21/2016 7:37:10 PM	R37365
Surr: 1,2-Dichloroethane-d4	96.5	0	70-130		%Rec	10	9/21/2016 7:37:10 PM	R37365
Surr: 4-Bromofluorobenzene	95.4	0	70-130		%Rec	10	9/21/2016 7:37:10 PM	R37365
Surr: Dibromofluoromethane	90.5	0	70-130		%Rec	10	9/21/2016 7:37:10 PM	R37365
Surr: Toluene-d8	99.1	0	70-130		%Rec	10	9/21/2016 7:37:10 PM	R37365
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	3.4	0.15	0.50		mg/L	10	9/21/2016 7:37:10 PM	W37365
Surr: BFB	101	0	70-130		%Rec	10	9/21/2016 7:37:10 PM	W37365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 3RD QTR (OW)
Collection Date:
Lab ID: 1609A26-006
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Toluene	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Naphthalene	ND	0.093	2.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Acetone	ND	4.9	10		µg/L	1	9/21/2016 8:05:54 PM	R37365
Bromobenzene	ND	0.098	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Bromoform	ND	0.10	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Bromomethane	ND	0.78	3.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
2-Butanone	ND	0.74	10		µg/L	1	9/21/2016 8:05:54 PM	R37365
Carbon disulfide	ND	0.60	10		µg/L	1	9/21/2016 8:05:54 PM	R37365
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Chloroethane	ND	0.19	2.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Chloroform	ND	0.089	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Chloromethane	ND	0.21	3.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Dibromomethane	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/21/2016 8:05:54 PM	R37365

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 3RD QTR (OW)
Collection Date:
Lab ID: 1609A26-006 **Matrix:** AQUEOUS **Received Date:** 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
2-Hexanone	ND	0.84	10		µg/L	1	9/21/2016 8:05:54 PM	R37365
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/21/2016 8:05:54 PM	R37365
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Styrene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/21/2016 8:05:54 PM	R37365
Surr: 1,2-Dichloroethane-d4	96.9	0	70-130		%Rec	1	9/21/2016 8:05:54 PM	R37365
Surr: 4-Bromofluorobenzene	94.4	0	70-130		%Rec	1	9/21/2016 8:05:54 PM	R37365
Surr: Dibromofluoromethane	96.8	0	70-130		%Rec	1	9/21/2016 8:05:54 PM	R37365
Surr: Toluene-d8	99.8	0	70-130		%Rec	1	9/21/2016 8:05:54 PM	R37365
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/21/2016 8:05:54 PM	W37365
Surr: BFB	96.8	0	70-130		%Rec	1	9/21/2016 8:05:54 PM	W37365

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **MB-C**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C37932**	RunNo: **37932**
Prep Date:	Analysis Date: **10/13/2016**	SeqNo: **1181916** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C37932**	RunNo: **37932**
Prep Date:	Analysis Date: **10/13/2016**	SeqNo: **1181917** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0023	0.0020	0.002000	0	116	50	150			
Cadmium	0.0020	0.0020	0.002000	0	102	50	150			
Chromium	0.0056	0.0060	0.006000	0	93.2	50	150			J
Manganese	0.0018	0.0020	0.002000	0	92.0	50	150			J
Silver	0.0046	0.0050	0.005000	0	91.4	50	150			J
Zinc	0.0051	0.010	0.005000	0	102	50	150			J

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C37932**	RunNo: **37932**
Prep Date:	Analysis Date: **10/13/2016**	SeqNo: **1181921** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.4	85	115			
Cadmium	0.49	0.0020	0.5000	0	97.6	85	115			
Chromium	0.48	0.0060	0.5000	0	95.2	85	115			
Copper	0.49	0.0060	0.5000	0	97.3	85	115			
Iron	0.48	0.020	0.5000	0	96.6	85	115			
Manganese	0.47	0.0020	0.5000	0	93.2	85	115			
Silver	0.093	0.0050	0.1000	0	93.1	85	115			
Zinc	0.46	0.010	0.5000	0	92.5	85	115			

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C37932**	RunNo: **37932**
Prep Date:	Analysis Date: **10/13/2016**	SeqNo: **1181938** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C37932**	RunNo: **37932**
Prep Date:	Analysis Date: **10/13/2016**	SeqNo: **1181938** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0086	0.0060	0.006000	0	143	50	150			
Iron	0.017	0.020	0.02000	0	84.8	50	150			J

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **MB-27884**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **27884**	RunNo: **37699**
Prep Date: **10/4/2016**	Analysis Date: **10/5/2016**	SeqNo: **1174527** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-27884**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **27884**	RunNo: **37699**
Prep Date: **10/4/2016**	Analysis Date: **10/5/2016**	SeqNo: **1174528** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.0020	0.5000	0	94.6	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.3	85	115			
Chromium	0.47	0.0060	0.5000	0	94.7	85	115			
Copper	0.47	0.0060	0.5000	0	93.9	85	115			
Iron	0.47	0.020	0.5000	0	93.3	85	115			
Manganese	0.46	0.0020	0.5000	0	92.7	85	115			
Silver	0.096	0.0050	0.1000	0	95.6	85	115			
Zinc	0.47	0.010	0.5000	0	94.5	85	115			

Sample ID **LLLCS-27884**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **27884**	RunNo: **37699**
Prep Date: **10/4/2016**	Analysis Date: **10/5/2016**	SeqNo: **1174529** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0015	0.0020	0.002000	0	77.0	50	150			J
Cadmium	0.0016	0.0020	0.002000	0	82.5	50	150			J
Chromium	0.0056	0.0060	0.006000	0	93.3	50	150			J
Copper	0.0063	0.0060	0.006000	0	105	50	150			
Manganese	0.0019	0.0020	0.002000	0	95.5	50	150			J
Silver	0.0042	0.0050	0.005000	0	83.4	50	150			J
Zinc	0.0050	0.010	0.005000	0	100	50	150			J

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	**LLLCS-27884**	SampType: **LCSLL**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID: **27884**		RunNo: **37699**					
Prep Date:	**10/4/2016**	Analysis Date: **10/5/2016**		SeqNo: **1174530**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.021	0.020	0.02000	0	104	50	150			

Sample ID	**1609A26-001DMS**	SampType: **MS**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**OW-55**	Batch ID: **27884**		RunNo: **37699**					
Prep Date:	**10/4/2016**	Analysis Date: **10/5/2016**		SeqNo: **1174650**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.49	0.0020	0.5000	0	97.9	70	130			
Chromium	0.48	0.0060	0.5000	0.008990	94.8	70	130			
Copper	0.50	0.0060	0.5000	0.009430	97.2	70	130			
Zinc	0.50	0.010	0.5000	0.06576	86.3	70	130			

Sample ID	**1609A26-001DMSD**	SampType: **MSD**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**OW-55**	Batch ID: **27884**		RunNo: **37699**					
Prep Date:	**10/4/2016**	Analysis Date: **10/5/2016**		SeqNo: **1174651**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.49	0.0020	0.5000	0	98.1	70	130	0.261	20	
Chromium	0.48	0.0060	0.5000	0.008990	94.6	70	130	0.215	20	
Copper	0.50	0.0060	0.5000	0.009430	97.3	70	130	0.149	20	
Zinc	0.50	0.010	0.5000	0.06576	85.9	70	130	0.385	20	

Sample ID	**1609A26-002DMS**	SampType: **MS**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**FB091616**	Batch ID: **27884**		RunNo: **37699**					
Prep Date:	**10/4/2016**	Analysis Date: **10/5/2016**		SeqNo: **1174653**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.2	70	130			
Cadmium	0.49	0.0020	0.5000	0	98.3	70	130			
Chromium	0.48	0.0060	0.5000	0	95.8	70	130			
Copper	0.47	0.0060	0.5000	0	93.5	70	130			
Iron	0.48	0.020	0.5000	0	96.4	70	130			
Manganese	0.47	0.0020	0.5000	0	94.0	70	130			
Silver	0.099	0.0050	0.1000	0	99.1	70	130			
Zinc	0.49	0.010	0.5000	0	97.2	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	**1609A26-002DMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**FB091616**	Batch ID:	**27884**		RunNo:	**37699**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/5/2016**		SeqNo:	**1174654**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.4	70	130	0.193	20	
Cadmium	0.50	0.0020	0.5000	0	99.4	70	130	1.11	20	
Chromium	0.48	0.0060	0.5000	0	96.7	70	130	0.983	20	
Copper	0.47	0.0060	0.5000	0	93.6	70	130	0.118	20	
Iron	0.47	0.020	0.5000	0	94.5	70	130	1.97	20	
Manganese	0.47	0.0020	0.5000	0	94.4	70	130	0.425	20	
Silver	0.10	0.0050	0.1000	0	99.6	70	130	0.473	20	
Zinc	0.49	0.010	0.5000	0	97.1	70	130	0.0988	20	

Sample ID	**1609A26-001DMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-55**	Batch ID:	**27884**		RunNo:	**37749**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/6/2016**		SeqNo:	**1176009**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.036	0.0050	0.1000	0	36.1	70	130			S

Sample ID	**1609A26-001DMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-55**	Batch ID:	**27884**		RunNo:	**37749**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/6/2016**		SeqNo:	**1176013**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.034	0.0050	0.1000	0	33.8	70	130	6.64	20	S

Sample ID	**1609A26-001DMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-55**	Batch ID:	**27884**		RunNo:	**37749**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/6/2016**		SeqNo:	**1176016**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.7	0.010	0.5000	1.221	100	70	130			

Sample ID	**1609A26-001DMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-55**	Batch ID:	**27884**		RunNo:	**37749**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/6/2016**		SeqNo:	**1176017**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.7	0.010	0.5000	1.221	95.9	70	130	1.19	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C37623**	RunNo: **37623**
Prep Date:	Analysis Date: **9/30/2016**	SeqNo: **1171239** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	93.4	85	115			
Lead	0.012	0.00050	0.01250	0	94.9	85	115			
Selenium	0.024	0.0010	0.02500	0	94.0	85	115			
Uranium	0.012	0.00050	0.01250	0	93.6	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C37623**	RunNo: **37623**
Prep Date:	Analysis Date: **9/30/2016**	SeqNo: **1171246** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	100	50	150			
Lead	0.00050	0.00050	0.0005000	0	100	50	150			
Selenium	0.0011	0.0010	0.001000	0	107	50	150			
Uranium	0.00049	0.00050	0.0005000	0	97.0	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C37623**	RunNo: **37623**
Prep Date:	Analysis Date: **9/30/2016**	SeqNo: **1171252** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C37789**	RunNo: **37789**
Prep Date:	Analysis Date: **10/7/2016**	SeqNo: **1177742** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	110	50	150			
Selenium	0.0011	0.0010	0.001000	0	110	50	150			
Uranium	0.00051	0.00050	0.0005000	0	103	50	150			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C37789**	RunNo: **37789**
Prep Date:	Analysis Date: **10/7/2016**	SeqNo: **1177744** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C37789**	RunNo: **37789**
Prep Date:	Analysis Date: **10/7/2016**	SeqNo: **1177744** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	**1609A26-003DMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**OW-56**	Batch ID:	**27884**		RunNo:	**37763**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/6/2016**		SeqNo:	**1176367**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.015	0.00050	0.01250	0.001040	113	70	130			

Sample ID	**MB-27884**	SampType:	**MBLK**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**PBW**	Batch ID:	**27884**		RunNo:	**37763**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/6/2016**		SeqNo:	**1176393**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-27884**	SampType:	**LCS**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**LCSW**	Batch ID:	**27884**		RunNo:	**37763**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/6/2016**		SeqNo:	**1176395**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.8	85	115			
Lead	0.013	0.00050	0.01250	0	104	85	115			
Selenium	0.024	0.0010	0.02500	0	97.4	85	115			
Uranium	0.013	0.00050	0.01250	0	102	85	115			

Sample ID	**MSLLLCS-27884**	SampType:	**LCSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**BatchQC**	Batch ID:	**27884**		RunNo:	**37763**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/6/2016**		SeqNo:	**1176397**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	104	50	150			
Lead	0.00052	0.00050	0.0005000	0	105	50	150			
Selenium	0.00089	0.0010	0.001000	0	89.5	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	98.8	50	150			J

Sample ID	**1609A26-003DMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**OW-56**	Batch ID:	**27884**		RunNo:	**37781**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/7/2016**		SeqNo:	**1176920**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.038	0.0025	0.01250	0.02415	107	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	**1609A26-004DMSDL**	SampType:	**MSDLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**OW-54**	Batch ID:	**27884**		RunNo:	**37781**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/7/2016**		SeqNo:	**1176923**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.046	0.0025	0.01250	0.03164	115	70	130	1.71	20	
Uranium	0.081	0.0025	0.01250	0.06456	128	70	130	2.00	20	

Sample ID	**1609A26-004DMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**OW-54**	Batch ID:	**27884**		RunNo:	**37781**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/7/2016**		SeqNo:	**1176924**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.047	0.0025	0.01250	0.03164	121	70	130			
Uranium	0.082	0.0025	0.01250	0.06456	141	70	130			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	**MB-27776**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**27776**	RunNo:	**37570**					
Prep Date:	**9/28/2016**	Analysis Date:	**9/29/2016**	SeqNo:	**1168946**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00011	0.00020								J

Sample ID	**LCS-27776**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**27776**	RunNo:	**37570**					
Prep Date:	**9/28/2016**	Analysis Date:	**9/29/2016**	SeqNo:	**1168947**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0047	0.00020	0.005000	0	94.2	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **1609A26-001CMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **OW-55**	Batch ID: **27591**	RunNo: **37320**
Prep Date: **9/20/2016**	Analysis Date: **9/20/2016**	SeqNo: **1159804** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	9.9	1.0	5.000	5.350	91.4	79.6	148			
Surr: DNOP	0.58		0.5000		116	77.1	144			

Sample ID **1609A26-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **OW-55**	Batch ID: **27591**	RunNo: **37320**
Prep Date: **9/20/2016**	Analysis Date: **9/20/2016**	SeqNo: **1159805** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	10	1.0	5.000	5.350	101	79.6	148	4.76	20	
Surr: DNOP	0.61		0.5000		122	77.1	144	0	0	

Sample ID **LCS-27591**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **27591**	RunNo: **37320**
Prep Date: **9/20/2016**	Analysis Date: **9/20/2016**	SeqNo: **1159822** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.3	1.0	5.000	0	106	63.2	155			
Surr: DNOP	0.57		0.5000		114	77.1	144			

Sample ID **MB-27591**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **27591**	RunNo: **37320**
Prep Date: **9/20/2016**	Analysis Date: **9/20/2016**	SeqNo: **1159826** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		116	77.1	144			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R37365**	RunNo: **37365**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1160915** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	70	130			
Toluene	19	1.0	20.00	0	92.7	70	130			
Chlorobenzene	19	1.0	20.00	0	94.9	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	92.5	70	130			
Trichloroethene (TCE)	16	1.0	20.00	0	81.3	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.0	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.7	70	130			
Surr: Toluene-d8	9.8		10.00		98.0	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37365**	RunNo: **37365**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1160916** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37365**	RunNo: **37365**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1160916** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37365**	RunNo: **37365**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1160916** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.1	70	130			
Surr: Dibromofluoromethane	10		10.00		99.6	70	130			
Surr: Toluene-d8	9.7		10.00		97.5	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **W37409**	RunNo: **37409**
Prep Date:	Analysis Date: **9/22/2016**	SeqNo: **1162560** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	107	70	130			
Toluene	19	1.0	20.00	0	95.8	70	130			
Chlorobenzene	19	1.0	20.00	0	95.6	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	96.4	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	87.4	70	130			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.8		10.00		97.7	70	130			
Surr: Toluene-d8	9.7		10.00		97.5	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **W37409**	RunNo: **37409**
Prep Date:	Analysis Date: **9/22/2016**	SeqNo: **1162561** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **W37409**	RunNo: **37409**
Prep Date:	Analysis Date: **9/22/2016**	SeqNo: **1162561** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **W37409**	RunNo: **37409**
Prep Date:	Analysis Date: **9/22/2016**	SeqNo: **1162561** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.1	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.9	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.6	70	130			
Surr: Toluene-d8	9.5		10.00		95.2	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **W37365**	RunNo: **37365**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1161683** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	95.2	75.4	118			
Surr: BFB	10		10.00		100	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **W37365**	RunNo: **37365**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1161684** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.019	0.050								J
Surr: BFB	9.7		10.00		97.3	70	130			

Sample ID **1609A26-002BMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **FB091616**	Batch ID: **W37365**	RunNo: **37365**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1161687** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.45	0.050	0.5000	0.03720	82.6	53.8	128			
Surr: BFB	9.9		10.00		99.1	70	130			

Sample ID **1609A26-002BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **FB091616**	Batch ID: **W37365**	RunNo: **37365**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1161688** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.44	0.050	0.5000	0.03720	79.7	53.8	128	3.34	20	
Surr: BFB	10		10.00		103	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1609A26** RcptNo: **1**

Received by/date: AF 09/16/16

Logged By: **Anne Thorne** 9/18/2016 2:00:00 PM Anne Thorne

Completed By: **Anne Thorne** 9/19/2016 Anne Thorne

Reviewed By: aJ 09/19/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	JC
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☑ 09/19/16	
9. Was preservative added to bottles?	Yes ☑	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 10 (<2 or >12 unless noted)

Adjusted? yes

Checked by: JC

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:
For metals analysis: added 1mL to -004D and -005D for acceptable pH 09/19/16 @ 1535 JC

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP NM, 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2016 3RD QTR (OW)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 2 / 1°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609A26	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	WQCC METALS (TOTAL & DISSOLVED)				Air Bubbles (Y or N)
9/16/16	1015	WATER	OW-55	40 mL VOA-6	HCL	-001			✓							✓						
				250 mL AMBER-1	NEAT	-001			✓													
				500 mL PLASTIC-1	HNO_3	-001												✓				
				125 mL PLASTIC-1	HNO_3	-001												✓				
				500 mL PLASTIC-1	NEAT	-001												✓				
	1030		FB091616	40 mL VOA-6	HCL	-002			✓							✓						
				250 mL AMBER-1	NEAT	-002			✓													
				500 mL PLASTIC-1	HNO_3	-002												✓				
				125 mL PLASTIC-1	HNO_3	-002												✓				
				500 mL PLASTIC-1	NEAT	-002												✓				

Date: 9/16/16 Time: 1400 Relinquished by:
Date: Time: Relinquished by:

Received by: Date: 9/16/16 Time: 1408
Received by: Date: Time:

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC. GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING RD GALLUP, NM 87301

Phone #: 505-722-0231

email or Fax#: CHERYL.JOHNSON@WNR.COM

QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)

Accreditation: ☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: 2016 3RD QTR (OW)

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.1

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609A26	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	WQCC METALS (TOTAL & DISSOLVED)				Air Bubbles (Y or N)
9/16	0810	WATER	OW-56	40 mL VOA-6	HCL	-003			✓							✓						
				250 mL AMBER-1	NEAT	-003			✓													
				500 mL PLASTIC-1	HNO_3	-003												✓				
				125 mL PLASTIC-1	HNO_3	-003												✓				
				500 mL PLASTIC-1	NEAT	-003												✓				
	0940		OW-54	40 mL VOA-6	HCL	-004			✓							✓						
				250 mL AMBER-	NEAT	-004			✓													
				500 mL PLASTIC-1	HNO_3	-004												✓				
				125 mL PLASTIC-1	HNO_3	-004												✓				
				500 mL PLASTIC-1	NEAT	-004												✓				

Date:	Time:	Relinquished by:	Received by:	Date	Time
9/16	1400			9/16/16	1400
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
[ ] EDD (Type)

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 3RD QTR (OW)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 2.1

HALL ENVIRONMENTAL ANALYSIS LABORATORY
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Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609A26
9/16/16	—	WATER	DUP06	40 ML VOA-6	HCL	005
				250 ML AMBER	NEAT	005
				500 ML PLASTIC-1	HNO_3	005
				125 ML PLASTIC-1	HNO_3	005
				500 ML PLASTIC-1	NEAT	005
9/16/16	—	WATER	TRIP BLANK	40 ML VOA-3	HCL	006

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	WQCC METALS (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
		✓							✓					
		✓												
											✓			
											✓			
											✓			
									✓					

Date: 9/16/16 Time: 1400 Relinquished by:
Received by: Date: 9/16/16 Time: 1400
Date: Time: Relinquished by:
Received by: Date: Time:

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 18, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 Annual/Quarterly OrderNo.: 1609076

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 9/1/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-14
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 8:42:00 AM
Lab ID: 1609076-001
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	4.1	0.69	1.0		mg/L	1	9/6/2016 1:20:59 PM	27339
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/6/2016 1:20:59 PM	27339
Surr: DNOP	134	0	77.1-144		%Rec	1	9/6/2016 1:20:59 PM	27339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **RAA**	
Gasoline Range Organics (GRO)	31	1.3	2.5		mg/L	50	9/6/2016 10:17:55 AM	R37021
Surr: BFB	83.5	0	66.4-120		%Rec	50	9/6/2016 10:17:55 AM	R37021
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	2.2	0.0066	0.010	*	mg/L	5	9/16/2016 11:10:25 AM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 11:08:43 AM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 11:08:43 AM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 11:08:43 AM	A37246
Iron	4.9	0.10	0.10	*	mg/L	5	9/16/2016 11:10:25 AM	A37246
Manganese	2.2	0.0016	0.010	*	mg/L	5	9/16/2016 11:10:25 AM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 11:08:43 AM	A37246
Zinc	0.028	0.0028	0.010		mg/L	1	9/16/2016 11:08:43 AM	A37246
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	2.1	0.0040	0.010	*	mg/L	5	9/29/2016 1:41:43 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 3:50:00 PM	27573
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 3:50:00 PM	27573
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 3:50:00 PM	27573
Iron	4.9	0.10	0.10	*	mg/L	5	9/29/2016 1:41:43 PM	27573
Manganese	2.2	0.0014	0.010	*	mg/L	5	9/29/2016 1:41:43 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 3:50:00 PM	27573
Zinc	0.015	0.0027	0.010		mg/L	1	9/21/2016 3:50:00 PM	27573
EPA 200.8: DISSOLVED METALS							Analyst: **DBD**	
Arsenic	0.0086	0.00014	0.0010		mg/L	1	9/13/2016 10:32:10 PM	C37166
Lead	ND	0.00017	0.00050		mg/L	1	9/13/2016 10:32:10 PM	C37166
Selenium	0.012	0.0042	0.020	J	mg/L	20	9/16/2016 3:34:11 PM	B37281
Uranium	0.0054	0.00026	0.0025		mg/L	5	9/15/2016 5:08:47 PM	C37239
200.8 ICPMS METALS:TOTAL							Analyst: **DBD**	
Arsenic	0.0076	0.0021	0.010	J	mg/L	10	9/16/2016 6:34:34 PM	27450
Lead	0.00014	0.000081	0.00050	J	mg/L	1	9/14/2016 5:12:50 PM	27450
Selenium	0.014	0.0019	0.010		mg/L	10	9/19/2016 3:25:54 PM	27450
Uranium	0.0059	0.00017	0.00050		mg/L	1	9/14/2016 5:12:50 PM	27450
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	8100	48	500		µg/L	500	9/6/2016 8:07:00 PM	R37011

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-14
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 8:42:00 AM
Lab ID: 1609076-001 **Matrix:** AQUEOUS **Received Date:** 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Toluene	2.9	0.59	5.0	J	µg/L	5	9/2/2016 4:06:00 PM	R36950
Ethylbenzene	250	0.56	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Methyl tert-butyl ether (MTBE)	580	1.1	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,2,4-Trimethylbenzene	7.1	0.55	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,3,5-Trimethylbenzene	0.82	0.58	5.0	J	µg/L	5	9/2/2016 4:06:00 PM	R36950
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Naphthalene	18	0.46	10		µg/L	5	9/2/2016 4:06:00 PM	R36950
1-Methylnaphthalene	34	1.0	20		µg/L	5	9/2/2016 4:06:00 PM	R36950
2-Methylnaphthalene	ND	0.79	20		µg/L	5	9/2/2016 4:06:00 PM	R36950
Acetone	ND	25	50		µg/L	5	9/2/2016 4:06:00 PM	R36950
Bromobenzene	ND	0.49	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Bromodichloromethane	ND	0.70	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Bromoform	ND	0.51	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Bromomethane	ND	3.9	15		µg/L	5	9/2/2016 4:06:00 PM	R36950
2-Butanone	ND	3.7	50		µg/L	5	9/2/2016 4:06:00 PM	R36950
Carbon disulfide	ND	3.0	50		µg/L	5	9/2/2016 4:06:00 PM	R36950
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Chlorobenzene	ND	0.57	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Chloroethane	ND	0.96	10		µg/L	5	9/2/2016 4:06:00 PM	R36950
Chloroform	ND	0.44	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Chloromethane	ND	1.1	15		µg/L	5	9/2/2016 4:06:00 PM	R36950
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	9/2/2016 4:06:00 PM	R36950
Dibromochloromethane	ND	0.43	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Dibromomethane	ND	0.60	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
2,2-Dichloropropane	ND	0.83	10		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-14
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 8:42:00 AM
Lab ID: 1609076-001 **Matrix:** AQUEOUS **Received Date:** 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
2-Hexanone	ND	4.2	50		µg/L	5	9/2/2016 4:06:00 PM	R36950
Isopropylbenzene	8.5	0.52	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	9/2/2016 4:06:00 PM	R36950
Methylene Chloride	ND	0.94	15		µg/L	5	9/2/2016 4:06:00 PM	R36950
n-Butylbenzene	1.3	0.80	15	J	µg/L	5	9/2/2016 4:06:00 PM	R36950
n-Propylbenzene	11	0.66	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
sec-Butylbenzene	2.2	0.62	5.0	J	µg/L	5	9/2/2016 4:06:00 PM	R36950
Styrene	ND	0.55	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	9/2/2016 4:06:00 PM	R36950
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	9/2/2016 4:06:00 PM	R36950
Vinyl chloride	ND	0.98	5.0		µg/L	5	9/2/2016 4:06:00 PM	R36950
Xylenes, Total	8.0	1.8	7.5		µg/L	5	9/2/2016 4:06:00 PM	R36950
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	5	9/2/2016 4:06:00 PM	R36950
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	5	9/2/2016 4:06:00 PM	R36950
Surr: Dibromofluoromethane	96.2	0	70-130		%Rec	5	9/2/2016 4:06:00 PM	R36950
Surr: Toluene-d8	101	0	70-130		%Rec	5	9/2/2016 4:06:00 PM	R36950

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-29
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 9:40:00 AM
Lab ID: 1609076-002
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/6/2016 2:26:49 PM	27339
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/6/2016 2:26:49 PM	27339
Surr: DNOP	133	0	77.1-144		%Rec	1	9/6/2016 2:26:49 PM	27339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **RAA**	
Gasoline Range Organics (GRO)	6.7	0.25	0.50		mg/L	10	9/6/2016 11:30:37 AM	R37021
Surr: BFB	82.0	0	66.4-120		%Rec	10	9/6/2016 11:30:37 AM	R37021
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.068	0.0013	0.0020		mg/L	1	9/16/2016 11:12:14 AM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 11:12:14 AM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 11:12:14 AM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 11:12:14 AM	A37246
Iron	0.27	0.020	0.020		mg/L	1	9/16/2016 11:12:14 AM	A37246
Manganese	0.30	0.00032	0.0020	*	mg/L	1	9/16/2016 11:12:14 AM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 11:12:14 AM	A37246
Zinc	0.028	0.0028	0.010		mg/L	1	9/16/2016 11:12:14 AM	A37246
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.065	0.00079	0.0020		mg/L	1	9/21/2016 3:51:43 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 3:51:43 PM	27573
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 3:51:43 PM	27573
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 3:51:43 PM	27573
Iron	0.33	0.020	0.020	*	mg/L	1	9/21/2016 3:51:43 PM	27573
Manganese	0.28	0.00027	0.0020	*	mg/L	1	9/21/2016 3:51:43 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 3:51:43 PM	27573
Zinc	ND	0.0027	0.010		mg/L	1	9/21/2016 3:51:43 PM	27573
EPA 200.8: DISSOLVED METALS							Analyst: **DBD**	
Arsenic	0.0026	0.00069	0.0050	J	mg/L	5	9/15/2016 5:11:50 PM	C37239
Lead	ND	0.00084	0.0025		mg/L	5	9/15/2016 5:11:50 PM	C37239
Selenium	0.0065	0.0021	0.010	J	mg/L	10	9/20/2016 1:25:58 PM	B37327
Uranium	0.054	0.00026	0.0025	*	mg/L	5	9/15/2016 5:11:50 PM	C37239
200.8 ICPMS METALS:TOTAL							Analyst: **DBD**	
Arsenic	ND	0.0021	0.010		mg/L	10	9/16/2016 6:37:35 PM	27450
Lead	ND	0.000081	0.00050		mg/L	1	9/14/2016 5:21:55 PM	27450
Selenium	0.0062	0.0019	0.010	J	mg/L	10	9/16/2016 6:37:35 PM	27450
Uranium	0.053	0.00087	0.0025	*	mg/L	5	9/19/2016 3:28:55 PM	27450
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	0.54	0.096	1.0	J	µg/L	1	9/2/2016 4:30:00 PM	R36950

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-29
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 9:40:00 AM
Lab ID: 1609076-002
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Toluene	ND	0.12	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Methyl tert-butyl ether (MTBE)	3000	11	50		µg/L	50	9/6/2016 10:43:00 AM	R37011
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,2-Dichloroethane (EDC)	0.65	0.12	1.0	J	µg/L	1	9/2/2016 4:30:00 PM	R36950
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Naphthalene	ND	0.093	2.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1-Methylnaphthalene	0.26	0.20	4.0	J	µg/L	1	9/2/2016 4:30:00 PM	R36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Acetone	ND	4.9	10		µg/L	1	9/2/2016 4:30:00 PM	R36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Bromoform	ND	0.10	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
2-Butanone	ND	0.74	10		µg/L	1	9/2/2016 4:30:00 PM	R36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/2/2016 4:30:00 PM	R36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Chloroform	ND	0.089	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-29
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 9:40:00 AM
Lab ID: 1609076-002
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
2-Hexanone	ND	0.84	10		µg/L	1	9/2/2016 4:30:00 PM	R36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/2/2016 4:30:00 PM	R36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Styrene	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/2/2016 4:30:00 PM	R36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/2/2016 4:30:00 PM	R36950
Surr: 1,2-Dichloroethane-d4	100	0	70-130		%Rec	1	9/2/2016 4:30:00 PM	R36950
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	9/2/2016 4:30:00 PM	R36950
Surr: Dibromofluoromethane	97.2	0	70-130		%Rec	1	9/2/2016 4:30:00 PM	R36950
Surr: Toluene-d8	102	0	70-130		%Rec	1	9/2/2016 4:30:00 PM	R36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-13
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 10:45:00 AM
Lab ID: 1609076-003
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/6/2016 2:48:38 PM	27339
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/6/2016 2:48:38 PM	27339
Surr: DNOP	132	0	77.1-144		%Rec	1	9/6/2016 2:48:38 PM	27339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **RAA**	
Gasoline Range Organics (GRO)	0.068	0.025	0.050		mg/L	1	9/6/2016 11:55:03 AM	R37021
Surr: BFB	79.9	0	66.4-120		%Rec	1	9/6/2016 11:55:03 AM	R37021
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.020	0.0013	0.0020		mg/L	1	9/16/2016 11:22:07 AM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 11:22:07 AM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 11:22:07 AM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 11:22:07 AM	A37246
Iron	ND	0.020	0.020		mg/L	1	9/16/2016 11:22:07 AM	A37246
Manganese	0.021	0.00032	0.0020		mg/L	1	9/16/2016 11:22:07 AM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 11:22:07 AM	A37246
Zinc	0.042	0.0028	0.010		mg/L	1	9/16/2016 11:22:07 AM	A37246
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.019	0.00079	0.0020		mg/L	1	9/21/2016 4:38:08 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 4:38:08 PM	27573
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 4:38:08 PM	27573
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 4:38:08 PM	27573
Iron	ND	0.020	0.020		mg/L	1	9/21/2016 4:38:08 PM	27573
Manganese	0.020	0.00027	0.0020		mg/L	1	9/21/2016 4:38:08 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 4:38:08 PM	27573
Zinc	ND	0.0027	0.010		mg/L	1	9/21/2016 4:38:08 PM	27573
EPA 200.8: DISSOLVED METALS							Analyst: **DBD**	
Arsenic	0.0015	0.00069	0.0050	J	mg/L	5	9/15/2016 5:14:54 PM	C37239
Lead	ND	0.00084	0.0025		mg/L	5	9/15/2016 5:14:54 PM	C37239
Selenium	0.0020	0.0011	0.0050	J	mg/L	5	9/15/2016 5:14:54 PM	C37239
Uranium	0.017	0.00026	0.0025		mg/L	5	9/15/2016 5:14:54 PM	C37239
200.8 ICPMS METALS:TOTAL							Analyst: **DBD**	
Arsenic	0.0015	0.00021	0.0010		mg/L	1	9/14/2016 5:24:55 PM	27450
Lead	ND	0.000081	0.00050		mg/L	1	9/14/2016 5:24:55 PM	27450
Selenium	0.0021	0.00019	0.0010		mg/L	1	9/14/2016 5:24:55 PM	27450
Uranium	0.018	0.00087	0.0025		mg/L	5	9/19/2016 3:31:55 PM	27450
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	0.13	0.096	1.0	J	µg/L	1	9/2/2016 4:54:00 PM	R36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-13
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 10:45:00 AM
Lab ID: 1609076-003
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Toluene	ND	0.12	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Methyl tert-butyl ether (MTBE)	38	0.21	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,2-Dichloroethane (EDC)	0.79	0.12	1.0	J	µg/L	1	9/2/2016 4:54:00 PM	R36950
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Naphthalene	ND	0.093	2.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Acetone	ND	4.9	10		µg/L	1	9/2/2016 4:54:00 PM	R36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Bromoform	ND	0.10	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
2-Butanone	ND	0.74	10		µg/L	1	9/2/2016 4:54:00 PM	R36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/2/2016 4:54:00 PM	R36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Chloroform	ND	0.089	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-13
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 10:45:00 AM
Lab ID: 1609076-003
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
2-Hexanone	ND	0.84	10		µg/L	1	9/2/2016 4:54:00 PM	R36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/2/2016 4:54:00 PM	R36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Styrene	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/2/2016 4:54:00 PM	R36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/2/2016 4:54:00 PM	R36950
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	1	9/2/2016 4:54:00 PM	R36950
Surr: 4-Bromofluorobenzene	100	0	70-130		%Rec	1	9/2/2016 4:54:00 PM	R36950
Surr: Dibromofluoromethane	101	0	70-130		%Rec	1	9/2/2016 4:54:00 PM	R36950
Surr: Toluene-d8	100	0	70-130		%Rec	1	9/2/2016 4:54:00 PM	R36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-30
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 11:50:00 AM
Lab ID: 1609076-004
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/6/2016 3:10:28 PM	27339
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/6/2016 3:10:28 PM	27339
Surr: DNOP	133	0	77.1-144		%Rec	1	9/6/2016 3:10:28 PM	27339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **RAA**	
Gasoline Range Organics (GRO)	6.9	0.25	0.50		mg/L	10	9/6/2016 12:19:22 PM	R37021
Surr: BFB	85.3	0	66.4-120		%Rec	10	9/6/2016 12:19:22 PM	R37021
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.10	0.0013	0.0020		mg/L	1	9/16/2016 11:26:13 AM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 11:26:13 AM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 11:26:13 AM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 11:26:13 AM	A37246
Iron	0.071	0.020	0.020		mg/L	1	9/16/2016 11:26:13 AM	A37246
Manganese	0.038	0.00032	0.0020		mg/L	1	9/16/2016 11:26:13 AM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 11:26:13 AM	A37246
Zinc	0.044	0.0028	0.010		mg/L	1	9/16/2016 11:26:13 AM	A37246
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.096	0.00079	0.0020		mg/L	1	9/21/2016 4:40:18 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 4:40:18 PM	27573
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 4:40:18 PM	27573
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 4:40:18 PM	27573
Iron	0.071	0.020	0.020		mg/L	1	9/21/2016 4:40:18 PM	27573
Manganese	0.035	0.00027	0.0020		mg/L	1	9/21/2016 4:40:18 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 4:40:18 PM	27573
Zinc	ND	0.0027	0.010		mg/L	1	9/21/2016 4:40:18 PM	27573
EPA 200.8: DISSOLVED METALS							Analyst: **DBD**	
Arsenic	0.0031	0.00069	0.0050	J	mg/L	5	9/15/2016 5:17:57 PM	C37239
Lead	0.00019	0.00017	0.00050	J	mg/L	1	9/13/2016 11:02:48 PM	D37166
Selenium	0.0075	0.0042	0.020	J	mg/L	20	9/16/2016 3:37:15 PM	B37281
Uranium	0.046	0.00026	0.0025	*	mg/L	5	9/15/2016 5:17:57 PM	C37239
200.8 ICPMS METALS:TOTAL							Analyst: **DBD**	
Arsenic	ND	0.0021	0.010		mg/L	10	9/16/2016 6:43:36 PM	27450
Lead	0.00025	0.000081	0.00050	J	mg/L	1	9/14/2016 5:30:56 PM	27450
Selenium	0.0067	0.0019	0.010	J	mg/L	10	9/16/2016 6:43:36 PM	27450
Uranium	0.048	0.00087	0.0025	*	mg/L	5	9/19/2016 3:44:00 PM	27450
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-30
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 11:50:00 AM
Lab ID: 1609076-004 **Matrix:** AQUEOUS **Received Date:** 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Toluene	ND	0.12	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Methyl tert-butyl ether (MTBE)	3000	11	50		µg/L	50	9/6/2016 11:07:00 AM	R37011
1,2,4-Trimethylbenzene	0.18	0.11	1.0	J	µg/L	1	9/2/2016 5:17:00 PM	R36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,2-Dichloroethane (EDC)	0.32	0.12	1.0	J	µg/L	1	9/2/2016 5:17:00 PM	R36950
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Naphthalene	ND	0.093	2.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Acetone	ND	4.9	10		µg/L	1	9/2/2016 5:17:00 PM	R36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Bromoform	ND	0.10	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
2-Butanone	ND	0.74	10		µg/L	1	9/2/2016 5:17:00 PM	R36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/2/2016 5:17:00 PM	R36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Chloroform	ND	0.089	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950

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Hall Environmental Analysis Laboratory, Inc.

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Client Sample ID: OW-30
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 11:50:00 AM
Lab ID: 1609076-004
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
2-Hexanone	ND	0.84	10		µg/L	1	9/2/2016 5:17:00 PM	R36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/2/2016 5:17:00 PM	R36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
sec-Butylbenzene	0.37	0.12	1.0	J	µg/L	1	9/2/2016 5:17:00 PM	R36950
Styrene	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/2/2016 5:17:00 PM	R36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/2/2016 5:17:00 PM	R36950
Surr: 1,2-Dichloroethane-d4	100	0	70-130		%Rec	1	9/2/2016 5:17:00 PM	R36950
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	9/2/2016 5:17:00 PM	R36950
Surr: Dibromofluoromethane	94.9	0	70-130		%Rec	1	9/2/2016 5:17:00 PM	R36950
Surr: Toluene-d8	99.8	0	70-130		%Rec	1	9/2/2016 5:17:00 PM	R36950

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: PW-3
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 2:40:00 PM
Lab ID: 1609076-005
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/2/2016 10:06:23 PM	R36995
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.011	0.0013	0.0020		mg/L	1	9/16/2016 11:31:17 AM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 11:31:17 AM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 11:31:17 AM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 11:31:17 AM	A37246
Iron	0.092	0.020	0.020		mg/L	1	9/16/2016 11:31:17 AM	A37246
Manganese	0.0014	0.00032	0.0020	J	mg/L	1	9/16/2016 11:31:17 AM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 11:31:17 AM	A37246
Zinc	0.011	0.0028	0.010		mg/L	1	9/16/2016 11:31:17 AM	A37246
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.011	0.00079	0.0020		mg/L	1	9/21/2016 4:42:16 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 4:42:16 PM	27573
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 4:42:16 PM	27573
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 4:42:16 PM	27573
Iron	0.24	0.020	0.020		mg/L	1	9/21/2016 4:42:16 PM	27573
Manganese	0.0016	0.00027	0.0020	J	mg/L	1	9/21/2016 4:42:16 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 4:42:16 PM	27573
Zinc	0.0072	0.0027	0.010	J	mg/L	1	9/21/2016 4:42:16 PM	27573
EPA 200.8: DISSOLVED METALS							Analyst: **DBD**	
Arsenic	0.0035	0.00014	0.0010		mg/L	1	9/13/2016 11:05:52 PM	D37166
Lead	ND	0.00017	0.00050		mg/L	1	9/13/2016 11:05:52 PM	D37166
Selenium	0.0018	0.0011	0.0050	J	mg/L	5	9/15/2016 5:21:01 PM	C37239
Uranium	0.0015	0.00026	0.0025	J	mg/L	5	9/15/2016 5:21:01 PM	C37239
200.8 ICPMS METALS:TOTAL							Analyst: **DBD**	
Arsenic	0.0041	0.00021	0.0010		mg/L	1	9/14/2016 5:39:58 PM	27450
Lead	0.00025	0.000081	0.00050	J	mg/L	1	9/14/2016 5:39:58 PM	27450
Selenium	0.0017	0.00019	0.0010		mg/L	1	9/14/2016 5:39:58 PM	27450
Uranium	0.0017	0.00017	0.00050		mg/L	1	9/14/2016 5:39:58 PM	27450
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Acenaphthylene	ND	2.4	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Aniline	ND	2.4	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Anthracene	ND	2.5	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Azobenzene	ND	2.7	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/10/2016 11:58:13 PM	27341

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Lab ID: 1609076-005
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Benzoic acid	8.5	2.6	20	J	µg/L	1	9/10/2016 11:58:13 PM	27341
Benzyl alcohol	ND	3.0	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Bis(2-ethylhexyl)phthalate	4.1	2.6	10	J	µg/L	1	9/10/2016 11:58:13 PM	27341
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Carbazole	ND	2.3	10		µg/L	1	9/10/2016 11:58:13 PM	27341
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
4-Chloroaniline	ND	2.7	10		µg/L	1	9/10/2016 11:58:13 PM	27341
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/10/2016 11:58:13 PM	27341
2-Chlorophenol	ND	2.2	10		µg/L	1	9/10/2016 11:58:13 PM	27341
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Chrysene	ND	2.8	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Di-n-octyl phthalate	4.3	2.0	10	J	µg/L	1	9/10/2016 11:58:13 PM	27341
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Dibenzofuran	ND	2.5	10		µg/L	1	9/10/2016 11:58:13 PM	27341
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/10/2016 11:58:13 PM	27341
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/10/2016 11:58:13 PM	27341
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/10/2016 11:58:13 PM	27341
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Diethyl phthalate	3.7	2.7	10	J	µg/L	1	9/10/2016 11:58:13 PM	27341
Dimethyl phthalate	7.9	2.4	10	J	µg/L	1	9/10/2016 11:58:13 PM	27341
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/10/2016 11:58:13 PM	27341
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/10/2016 11:58:13 PM	27341
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/10/2016 11:58:13 PM	27341
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/10/2016 11:58:13 PM	27341
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/10/2016 11:58:13 PM	27341
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Fluoranthene	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Fluorene	ND	2.7	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/10/2016 11:58:13 PM	27341

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Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Hexachloroethane	ND	2.4	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Isophorone	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/10/2016 11:58:13 PM	27341
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/10/2016 11:58:13 PM	27341
2-Methylphenol	ND	2.5	10		µg/L	1	9/10/2016 11:58:13 PM	27341
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/10/2016 11:58:13 PM	27341
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/10/2016 11:58:13 PM	27341
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/10/2016 11:58:13 PM	27341
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Naphthalene	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
2-Nitroaniline	ND	2.8	10		µg/L	1	9/10/2016 11:58:13 PM	27341
3-Nitroaniline	ND	2.9	10		µg/L	1	9/10/2016 11:58:13 PM	27341
4-Nitroaniline	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Nitrobenzene	ND	2.8	10		µg/L	1	9/10/2016 11:58:13 PM	27341
2-Nitrophenol	ND	2.4	10		µg/L	1	9/10/2016 11:58:13 PM	27341
4-Nitrophenol	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Pentachlorophenol	ND	2.3	20		µg/L	1	9/10/2016 11:58:13 PM	27341
Phenanthrene	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Phenol	ND	2.0	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Pyrene	ND	3.1	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Pyridine	ND	2.2	10		µg/L	1	9/10/2016 11:58:13 PM	27341
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/10/2016 11:58:13 PM	27341
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/10/2016 11:58:13 PM	27341
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/10/2016 11:58:13 PM	27341
Surr: 2-Fluorophenol	45.9	0	15-123		%Rec	1	9/10/2016 11:58:13 PM	27341
Surr: Phenol-d5	46.0	0	15-124		%Rec	1	9/10/2016 11:58:13 PM	27341
Surr: 2,4,6-Tribromophenol	58.3	0	18.4-134		%Rec	1	9/10/2016 11:58:13 PM	27341
Surr: Nitrobenzene-d5	88.5	0	28.8-134		%Rec	1	9/10/2016 11:58:13 PM	27341
Surr: 2-Fluorobiphenyl	79.1	0	35.9-125		%Rec	1	9/10/2016 11:58:13 PM	27341
Surr: 4-Terphenyl-d14	42.2	0	15-146		%Rec	1	9/10/2016 11:58:13 PM	27341
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Toluene	ND	0.12	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Methyl tert-butyl ether (MTBE)	0.84	0.21	1.0	J	µg/L	1	9/2/2016 5:41:00 PM	R36950
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: PW-3
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 2:40:00 PM
Lab ID: 1609076-005
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Naphthalene	ND	0.093	2.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Acetone	ND	4.9	10		µg/L	1	9/2/2016 5:41:00 PM	R36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Bromoform	ND	0.10	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
2-Butanone	ND	0.74	10		µg/L	1	9/2/2016 5:41:00 PM	R36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/2/2016 5:41:00 PM	R36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Chloroform	ND	0.089	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
2-Hexanone	ND	0.84	10		µg/L	1	9/2/2016 5:41:00 PM	R36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/2/2016 5:41:00 PM	R36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/2/2016 5:41:00 PM	R36950

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: PW-3
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 2:40:00 PM
Lab ID: 1609076-005
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Styrene	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/2/2016 5:41:00 PM	R36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/2/2016 5:41:00 PM	R36950
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	1	9/2/2016 5:41:00 PM	R36950
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	9/2/2016 5:41:00 PM	R36950
Surr: Dibromofluoromethane	101	0	70-130		%Rec	1	9/2/2016 5:41:00 PM	R36950
Surr: Toluene-d8	101	0	70-130		%Rec	1	9/2/2016 5:41:00 PM	R36950

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: PW-4
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 3:10:00 PM
Lab ID: 1609076-006
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/2/2016 10:18:47 PM	R36995
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.014	0.0013	0.0020		mg/L	1	9/16/2016 11:35:12 AM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 11:35:12 AM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 11:35:12 AM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 11:35:12 AM	A37246
Iron	0.061	0.020	0.020		mg/L	1	9/16/2016 11:35:12 AM	A37246
Manganese	0.00098	0.00032	0.0020	J	mg/L	1	9/16/2016 11:35:12 AM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 11:35:12 AM	A37246
Zinc	ND	0.0028	0.010		mg/L	1	9/16/2016 11:35:12 AM	A37246
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.014	0.00079	0.0020		mg/L	1	9/21/2016 4:44:10 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 4:44:10 PM	27573
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 4:44:10 PM	27573
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 4:44:10 PM	27573
Iron	0.14	0.020	0.020		mg/L	1	9/21/2016 4:44:10 PM	27573
Manganese	0.0012	0.00027	0.0020	J	mg/L	1	9/21/2016 4:44:10 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 4:44:10 PM	27573
Zinc	0.0036	0.0027	0.010	J	mg/L	1	9/21/2016 4:44:10 PM	27573
EPA 200.8: DISSOLVED METALS							Analyst: **DBD**	
Arsenic	0.0029	0.00014	0.0010		mg/L	1	9/13/2016 11:08:55 PM	D37166
Lead	ND	0.00017	0.00050		mg/L	1	9/13/2016 11:08:55 PM	D37166
Selenium	0.0018	0.0011	0.0050	J	mg/L	5	9/15/2016 5:24:04 PM	C37239
Uranium	0.0015	0.00026	0.0025	J	mg/L	5	9/15/2016 5:24:04 PM	C37239
200.8 ICPMS METALS:TOTAL							Analyst: **DBD**	
Arsenic	0.0037	0.00021	0.0010		mg/L	1	9/14/2016 5:42:59 PM	27450
Lead	ND	0.000081	0.00050		mg/L	1	9/14/2016 5:42:59 PM	27450
Selenium	0.0016	0.00019	0.0010		mg/L	1	9/14/2016 5:42:59 PM	27450
Uranium	0.0018	0.00017	0.00050		mg/L	1	9/14/2016 5:42:59 PM	27450
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Acenaphthylene	ND	2.4	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Aniline	ND	2.4	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Anthracene	ND	2.5	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Azobenzene	ND	2.7	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/11/2016 12:26:04 AM	27341

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: PW-4
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 3:10:00 PM
Lab ID: 1609076-006
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Benzoic acid	8.7	2.6	20	J	µg/L	1	9/11/2016 12:26:04 AM	27341
Benzyl alcohol	ND	3.0	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Bis(2-ethylhexyl)phthalate	3.1	2.6	10	J	µg/L	1	9/11/2016 12:26:04 AM	27341
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Carbazole	ND	2.3	10		µg/L	1	9/11/2016 12:26:04 AM	27341
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
4-Chloroaniline	ND	2.7	10		µg/L	1	9/11/2016 12:26:04 AM	27341
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/11/2016 12:26:04 AM	27341
2-Chlorophenol	ND	2.2	10		µg/L	1	9/11/2016 12:26:04 AM	27341
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Chrysene	ND	2.8	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Di-n-octyl phthalate	3.8	2.0	10	J	µg/L	1	9/11/2016 12:26:04 AM	27341
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Dibenzofuran	ND	2.5	10		µg/L	1	9/11/2016 12:26:04 AM	27341
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/11/2016 12:26:04 AM	27341
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/11/2016 12:26:04 AM	27341
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/11/2016 12:26:04 AM	27341
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Diethyl phthalate	2.9	2.7	10	J	µg/L	1	9/11/2016 12:26:04 AM	27341
Dimethyl phthalate	6.4	2.4	10	J	µg/L	1	9/11/2016 12:26:04 AM	27341
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/11/2016 12:26:04 AM	27341
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/11/2016 12:26:04 AM	27341
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/11/2016 12:26:04 AM	27341
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/11/2016 12:26:04 AM	27341
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/11/2016 12:26:04 AM	27341
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Fluoranthene	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Fluorene	ND	2.7	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/11/2016 12:26:04 AM	27341

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Qualifiers:

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: PW-4
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 3:10:00 PM
Lab ID: 1609076-006
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Hexachloroethane	ND	2.4	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Isophorone	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/11/2016 12:26:04 AM	27341
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/11/2016 12:26:04 AM	27341
2-Methylphenol	ND	2.5	10		µg/L	1	9/11/2016 12:26:04 AM	27341
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/11/2016 12:26:04 AM	27341
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/11/2016 12:26:04 AM	27341
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/11/2016 12:26:04 AM	27341
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Naphthalene	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
2-Nitroaniline	ND	2.8	10		µg/L	1	9/11/2016 12:26:04 AM	27341
3-Nitroaniline	ND	2.9	10		µg/L	1	9/11/2016 12:26:04 AM	27341
4-Nitroaniline	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Nitrobenzene	ND	2.8	10		µg/L	1	9/11/2016 12:26:04 AM	27341
2-Nitrophenol	ND	2.4	10		µg/L	1	9/11/2016 12:26:04 AM	27341
4-Nitrophenol	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Pentachlorophenol	ND	2.3	20		µg/L	1	9/11/2016 12:26:04 AM	27341
Phenanthrene	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Phenol	ND	2.0	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Pyrene	ND	3.1	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Pyridine	ND	2.2	10		µg/L	1	9/11/2016 12:26:04 AM	27341
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/11/2016 12:26:04 AM	27341
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/11/2016 12:26:04 AM	27341
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/11/2016 12:26:04 AM	27341
Surr: 2-Fluorophenol	32.8	0	15-123		%Rec	1	9/11/2016 12:26:04 AM	27341
Surr: Phenol-d5	33.8	0	15-124		%Rec	1	9/11/2016 12:26:04 AM	27341
Surr: 2,4,6-Tribromophenol	46.2	0	18.4-134		%Rec	1	9/11/2016 12:26:04 AM	27341
Surr: Nitrobenzene-d5	56.1	0	28.8-134		%Rec	1	9/11/2016 12:26:04 AM	27341
Surr: 2-Fluorobiphenyl	52.8	0	35.9-125		%Rec	1	9/11/2016 12:26:04 AM	27341
Surr: 4-Terphenyl-d14	34.8	0	15-146		%Rec	1	9/11/2016 12:26:04 AM	27341
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Toluene	ND	0.12	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: PW-4
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 3:10:00 PM
Lab ID: 1609076-006 **Matrix:** AQUEOUS **Received Date:** 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Naphthalene	ND	0.093	2.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Acetone	ND	4.9	10		µg/L	1	9/2/2016 6:04:00 PM	R36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Bromoform	ND	0.10	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
2-Butanone	ND	0.74	10		µg/L	1	9/2/2016 6:04:00 PM	R36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/2/2016 6:04:00 PM	R36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Chloroform	ND	0.089	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
2-Hexanone	ND	0.84	10		µg/L	1	9/2/2016 6:04:00 PM	R36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/2/2016 6:04:00 PM	R36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/2/2016 6:04:00 PM	R36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: PW-4
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 3:10:00 PM
Lab ID: 1609076-006
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Styrene	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/2/2016 6:04:00 PM	R36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/2/2016 6:04:00 PM	R36950
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	1	9/2/2016 6:04:00 PM	R36950
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	9/2/2016 6:04:00 PM	R36950
Surr: Dibromofluoromethane	99.8	0	70-130		%Rec	1	9/2/2016 6:04:00 PM	R36950
Surr: Toluene-d8	99.7	0	70-130		%Rec	1	9/2/2016 6:04:00 PM	R36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2016 Annual/Quarterly
Collection Date:
Lab ID: 1609076-007
Matrix: TRIP BLANK
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	9/6/2016 12:43:47 PM	R37021
Surr: BFB	85.6	0	66.4-120		%Rec	1	9/6/2016 12:43:47 PM	R37021
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Toluene	ND	0.12	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Naphthalene	ND	0.093	2.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Acetone	ND	4.9	10		µg/L	1	9/2/2016 6:28:00 PM	R36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Bromoform	ND	0.10	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
2-Butanone	ND	0.74	10		µg/L	1	9/2/2016 6:28:00 PM	R36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/2/2016 6:28:00 PM	R36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Chloroform	ND	0.089	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2016 Annual/Quarterly
Collection Date:
Lab ID: 1609076-007
Matrix: TRIP BLANK
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
2-Hexanone	ND	0.84	10		µg/L	1	9/2/2016 6:28:00 PM	R36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/2/2016 6:28:00 PM	R36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Styrene	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/2/2016 6:28:00 PM	R36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/2/2016 6:28:00 PM	R36950
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	9/2/2016 6:28:00 PM	R36950
Surr: 4-Bromofluorobenzene	100	0	70-130		%Rec	1	9/2/2016 6:28:00 PM	R36950
Surr: Dibromofluoromethane	100	0	70-130		%Rec	1	9/2/2016 6:28:00 PM	R36950
Surr: Toluene-d8	101	0	70-130		%Rec	1	9/2/2016 6:28:00 PM	R36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 7:00:00 AM
Lab ID: 1609076-008 **Matrix:** AQUEOUS **Received Date:** 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Toluene	ND	0.12	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Naphthalene	ND	0.093	2.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Acetone	ND	4.9	10		µg/L	1	9/2/2016 6:51:00 PM	R36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Bromoform	ND	0.10	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
2-Butanone	ND	0.74	10		µg/L	1	9/2/2016 6:51:00 PM	R36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/2/2016 6:51:00 PM	R36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Chloroform	ND	0.089	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/2/2016 6:51:00 PM	R36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 Annual/Quarterly
Collection Date: 8/31/2016 7:00:00 AM
Lab ID: 1609076-008
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
2-Hexanone	ND	0.84	10		µg/L	1	9/2/2016 6:51:00 PM	R36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/2/2016 6:51:00 PM	R36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Styrene	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/2/2016 6:51:00 PM	R36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/2/2016 6:51:00 PM	R36950
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	1	9/2/2016 6:51:00 PM	R36950
Surr: 4-Bromofluorobenzene	105	0	70-130		%Rec	1	9/2/2016 6:51:00 PM	R36950
Surr: Dibromofluoromethane	102	0	70-130		%Rec	1	9/2/2016 6:51:00 PM	R36950
Surr: Toluene-d8	100	0	70-130		%Rec	1	9/2/2016 6:51:00 PM	R36950

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Qualifiers:

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Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	160908029
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1609076
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	160908029-001	**Sampling Date**	8/31/2016	**Date/Time Received**	9/8/2016	12:30 PM	
Client Sample ID	1609076-005F / PW-3	**Sampling Time**	2:40 PM				
Matrix	Water						
Comments							

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	9/14/2016	MER	EPA 335.4	

Sample Number	160908029-002	**Sampling Date**	8/31/2016	**Date/Time Received**	9/8/2016	12:30 PM	
Client Sample ID	1609076-006F / PW-4	**Sampling Time**	3:10 PM				
Matrix	Water						
Comments							

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	9/14/2016	MER	EPA 335.4	

Authorized Signature

Todd Taruscio, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013;NV:ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	160908029
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	1609076
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.513	mg/L	0.5	102.6	90-110	9/14/2016	9/14/2016

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
160908027-002	Cyanide	ND	0.509	mg/L	0.5	101.8	90-110	9/14/2016	9/14/2016

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	0.494	mg/L	0.5	98.8	3.0	0-20	9/14/2016	9/14/2016

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/L	0.01	9/14/2016	9/14/2016

AR	Acceptable Range
ND	Not Detected
PQL	Practical Quantitation Limit
RPD	Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013;NV:ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609076**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A37246**	RunNo: **37246**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1155988** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A37246**	RunNo: **37246**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1155989** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.7	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	98.5	85	115			
Copper	0.49	0.0060	0.5000	0	97.6	85	115			
Iron	0.49	0.020	0.5000	0	97.3	85	115			
Manganese	0.48	0.0020	0.5000	0	96.9	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			
Zinc	0.50	0.010	0.5000	0	99.2	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A37246**	RunNo: **37246**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1155990** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0017	0.0020	0.002000	0	84.5	50	150			J
Cadmium	0.0019	0.0020	0.002000	0	94.5	50	150			J
Chromium	0.0058	0.0060	0.006000	0	97.5	50	150			J
Copper	0.0043	0.0060	0.006000	0	71.0	50	150			J
Iron	0.022	0.020	0.02000	0	110	50	150			
Manganese	0.0021	0.0020	0.002000	0	105	50	150			
Silver	0.0055	0.0050	0.005000	0	110	50	150			
Zinc	0.0057	0.010	0.005000	0	114	50	150			J

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609076**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **MB-27573**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **27573**	RunNo: **37369**
Prep Date: **9/19/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161340** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-27573**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **27573**	RunNo: **37369**
Prep Date: **9/19/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161341** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.6	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.9	85	115			
Chromium	0.48	0.0060	0.5000	0	95.8	85	115			
Copper	0.48	0.0060	0.5000	0	95.1	85	115			
Iron	0.48	0.020	0.5000	0	95.3	85	115			
Manganese	0.47	0.0020	0.5000	0	94.6	85	115			
Silver	0.091	0.0050	0.1000	0	91.1	85	115			
Zinc	0.47	0.010	0.5000	0	94.7	85	115			

Sample ID **LLLCS-27573**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **27573**	RunNo: **37369**
Prep Date: **9/19/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161342** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0022	0.0020	0.002000	0	110	50	150			
Cadmium	0.0020	0.0020	0.002000	0	99.5	50	150			J
Chromium	0.0064	0.0060	0.006000	0	106	50	150			
Copper	0.0057	0.0060	0.006000	0	94.8	50	150			J
Manganese	0.0021	0.0020	0.002000	0	106	50	150			
Silver	0.0049	0.0050	0.005000	0	98.6	50	150			J
Zinc	0.0059	0.010	0.005000	0	117	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609076**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	**LLLCS-27573**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**BatchQC**	Batch ID:	**27573**		RunNo:	**37369**				
Prep Date:	**9/19/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161352**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.022	0.020	0.02000	0	111	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609076**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C37166**	RunNo: **37166**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152868** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.9	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **D37166**	RunNo: **37166**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152869** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.5	85	115			
Lead	0.012	0.00050	0.01250	0	95.4	85	115			

Sample ID **LCSLL**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C37166**	RunNo: **37166**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152871** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00088	0.0010	0.001000	0	88.5	50	150			J
Lead	0.00044	0.00050	0.0005000	0	88.8	50	150			J

Sample ID **LCSLL**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **D37166**	RunNo: **37166**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152872** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	104	50	150			
Lead	0.00048	0.00050	0.0005000	0	95.9	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C37166**	RunNo: **37166**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152874** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **D37166**	RunNo: **37166**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152875** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609076**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **D37166**	RunNo: **37166**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152875** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C37239**	RunNo: **37239**
Prep Date:	Analysis Date: **9/15/2016**	SeqNo: **1155793** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.9	85	115			
Lead	0.012	0.00050	0.01250	0	98.5	85	115			
Selenium	0.023	0.0010	0.02500	0	93.0	85	115			
Uranium	0.012	0.00050	0.01250	0	98.2	85	115			

Sample ID **LCSLL**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C37239**	RunNo: **37239**
Prep Date:	Analysis Date: **9/15/2016**	SeqNo: **1155795** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	101	50	150			
Lead	0.00053	0.00050	0.0005000	0	107	50	150			
Selenium	0.00097	0.0010	0.001000	0	96.7	50	150			J
Uranium	0.00050	0.00050	0.0005000	0	100	50	150			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C37239**	RunNo: **37239**
Prep Date:	Analysis Date: **9/15/2016**	SeqNo: **1155797** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B37281**	RunNo: **37281**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1157676** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.023	0.0010	0.02500	0	93.7	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609076**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	**LCSLL**	SampType: **LCSLL**			TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID: **B37281**			RunNo: **37281**					
Prep Date:		Analysis Date: **9/16/2016**			SeqNo: **1157677**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.00096	0.0010	0.001000	0	96.3	50	150			J

Sample ID	**MB**	SampType: **MBLK**			TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**PBW**	Batch ID: **B37281**			RunNo: **37281**					
Prep Date:		Analysis Date: **9/16/2016**			SeqNo: **1157678**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID	**LCS**	SampType: **LCS**			TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID: **B37327**			RunNo: **37327**					
Prep Date:		Analysis Date: **9/20/2016**			SeqNo: **1160758**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.024	0.0010	0.02500	0	95.3	85	115			

Sample ID	**LLLCS**	SampType: **LCSLL**			TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID: **B37327**			RunNo: **37327**					
Prep Date:		Analysis Date: **9/20/2016**			SeqNo: **1160760**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.00098	0.0010	0.001000	0	98.0	50	150			J

Sample ID	**MB**	SampType: **MBLK**			TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**PBW**	Batch ID: **B37327**			RunNo: **37327**					
Prep Date:		Analysis Date: **9/20/2016**			SeqNo: **1160762**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609076**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	**1609076-003CMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**OW-13**	Batch ID:	**27450**		RunNo:	**37201**				
Prep Date:	**9/12/2016**	Analysis Date:	**9/14/2016**		SeqNo:	**1154586**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0.001538	103	70	130			
Lead	0.013	0.00050	0.01250	0	105	70	130			
Selenium	0.025	0.0010	0.02500	0.002106	92.4	70	130			

Sample ID	**1609076-004CMSDL**	SampType:	**MSDLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**OW-30**	Batch ID:	**27450**		RunNo:	**37201**				
Prep Date:	**9/12/2016**	Analysis Date:	**9/14/2016**		SeqNo:	**1154588**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.028	0.0010	0.02500	0.002758	102	70	130	0.395	20	
Lead	0.014	0.00050	0.01250	0.0002451	108	70	130	0.407	20	
Selenium	0.029	0.0010	0.02500	0.006396	90.0	70	130	0.134	20	

Sample ID	**1609076-004CMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**OW-30**	Batch ID:	**27450**		RunNo:	**37201**				
Prep Date:	**9/12/2016**	Analysis Date:	**9/14/2016**		SeqNo:	**1154589**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.028	0.0010	0.02500	0.002758	102	70	130			
Lead	0.014	0.00050	0.01250	0.0002451	108	70	130			
Selenium	0.029	0.0010	0.02500	0.006396	89.8	70	130			

Sample ID	**MSLCS-27450**	SampType:	**LCS**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**LCSW**	Batch ID:	**27450**		RunNo:	**37201**				
Prep Date:	**9/12/2016**	Analysis Date:	**9/14/2016**		SeqNo:	**1154603**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.6	85	115			
Lead	0.012	0.00050	0.01250	0	96.3	85	115			
Selenium	0.023	0.0010	0.02500	0	92.8	85	115			
Uranium	0.012	0.00050	0.01250	0	95.3	85	115			

Sample ID	**MSLLLCS-27450**	SampType:	**LCSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**BatchQC**	Batch ID:	**27450**		RunNo:	**37201**				
Prep Date:	**9/12/2016**	Analysis Date:	**9/14/2016**		SeqNo:	**1154608**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0012	0.0010	0.001000	0	121	50	150			
Lead	0.00051	0.00050	0.0005000	0	103	50	150			
Selenium	0.00094	0.0010	0.001000	0	93.9	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609076**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	**MSLLLCS-27450**	SampType: **LCSLL**			TestCode: **200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID: **27450**			RunNo: **37201**					
Prep Date:	**9/12/2016**	Analysis Date: **9/14/2016**			SeqNo: **1154608**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.00049	0.00050	0.0005000	0	97.4	50	150			J

Sample ID	**MB-27450**	SampType: **MBLK**			TestCode: **200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID: **27450**			RunNo: **37201**					
Prep Date:	**9/12/2016**	Analysis Date: **9/14/2016**			SeqNo: **1154613**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00024	0.0010								J
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**1609076-003CMSLL**	SampType: **MSLL**			TestCode: **200.8 ICPMS Metals:Total**					
Client ID:	**OW-13**	Batch ID: **27450**			RunNo: **37309**					
Prep Date:	**9/12/2016**	Analysis Date: **9/19/2016**			SeqNo: **1158645**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.031	0.0025	0.01250	0.01770	110	70	130			

Sample ID	**1609076-004CMSDL**	SampType: **MSDLL**			TestCode: **200.8 ICPMS Metals:Total**					
Client ID:	**OW-30**	Batch ID: **27450**			RunNo: **37309**					
Prep Date:	**9/12/2016**	Analysis Date: **9/19/2016**			SeqNo: **1158647**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.062	0.0025	0.01250	0.04807	112	70	130	0.469	20	

Sample ID	**1609076-004CMSLL**	SampType: **MSLL**			TestCode: **200.8 ICPMS Metals:Total**					
Client ID:	**OW-30**	Batch ID: **27450**			RunNo: **37309**					
Prep Date:	**9/12/2016**	Analysis Date: **9/19/2016**			SeqNo: **1158648**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.062	0.0025	0.01250	0.04807	110	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1609076**
18-Oct-16

Client: Western Refining Southwest, Gallup
Project: 2016 Annual/Quarterly

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R36995**	RunNo: **36995**							
Prep Date:	Analysis Date: **9/2/2016**	SeqNo: **1146458**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R36995**	RunNo: **36995**							
Prep Date:	Analysis Date: **9/2/2016**	SeqNo: **1146459**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	101	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609076**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **1609076-001BMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **OW-14**	Batch ID: **27339**	RunNo: **37010**
Prep Date: **9/6/2016**	Analysis Date: **9/6/2016**	SeqNo: **1146955** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	9.7	1.0	5.000	4.052	112	79.6	148			
Surr: DNOP	0.64		0.5000		128	77.1	144			

Sample ID **1609076-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **OW-14**	Batch ID: **27339**	RunNo: **37010**
Prep Date: **9/6/2016**	Analysis Date: **9/6/2016**	SeqNo: **1146956** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	10	1.0	5.000	4.052	120	79.6	148	3.85	20	
Surr: DNOP	0.66		0.5000		131	77.1	144	0	0	

Sample ID **LCS-27339**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **27339**	RunNo: **37010**
Prep Date: **9/6/2016**	Analysis Date: **9/6/2016**	SeqNo: **1146966** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.3	1.0	5.000	0	105	62.8	153			
Surr: DNOP	0.62		0.5000		124	77.1	144			

Sample ID **MB-27339**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **27339**	RunNo: **37010**
Prep Date: **9/6/2016**	Analysis Date: **9/6/2016**	SeqNo: **1146967** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		122	77.1	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609076**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	**1609076-001AMS**	SampType:	**MS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**OW-14**	Batch ID:	**R37021**		RunNo:	**37021**				
Prep Date:		Analysis Date:	**9/6/2016**		SeqNo:	**1147557**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	52	2.5	25.00	30.63	84.4	70	130			
Surr: BFB	900		1000		89.8	66.4	120			

Sample ID	**1609076-001AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**OW-14**	Batch ID:	**R37021**		RunNo:	**37021**				
Prep Date:		Analysis Date:	**9/6/2016**		SeqNo:	**1147558**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	49	2.5	25.00	30.63	75.0	70	130	4.63	20	
Surr: BFB	900		1000		89.5	66.4	120	0	0	

Sample ID	**2.5UG GRO LCS**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSW**	Batch ID:	**R37021**		RunNo:	**37021**				
Prep Date:		Analysis Date:	**9/6/2016**		SeqNo:	**1147571**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	101	80	120			
Surr: BFB	18		20.00		88.0	66.4	120			

Sample ID	**5ML RB**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBW**	Batch ID:	**R37021**		RunNo:	**37021**				
Prep Date:		Analysis Date:	**9/6/2016**		SeqNo:	**1147572**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	16		20.00		82.2	66.4	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609076**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R36950**	RunNo: **36950**
Prep Date:	Analysis Date: **9/2/2016**	SeqNo: **1146321** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.8	70	130			
Toluene	20	1.0	20.00	0	99.3	70	130			
Chlorobenzene	20	1.0	20.00	0	99.9	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	90.3	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	92.5	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.7	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		94.9	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.0	70	130			
Surr: Toluene-d8	9.7		10.00		97.3	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R36950**	RunNo: **36950**
Prep Date:	Analysis Date: **9/2/2016**	SeqNo: **1146322** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	0.23	4.0								J
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609076**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R36950**	RunNo: **36950**
Prep Date:	Analysis Date: **9/2/2016**	SeqNo: **1146322** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609076**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R36950**	RunNo: **36950**
Prep Date:	Analysis Date: **9/2/2016**	SeqNo: **1146322** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.2	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.8	70	130			
Surr: Dibromofluoromethane	9.3		10.00		92.9	70	130			
Surr: Toluene-d8	9.8		10.00		97.7	70	130			

Sample ID **100NG LCS**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R37011**	RunNo: **37011**
Prep Date:	Analysis Date: **9/6/2016**	SeqNo: **1146952** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.1	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.9		10.00		98.8	70	130			
Surr: Toluene-d8	10		10.00		99.8	70	130			

Sample ID **VSB FRIDGE**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37011**	RunNo: **37011**
Prep Date:	Analysis Date: **9/6/2016**	SeqNo: **1146953** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609076**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **mb-27341**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **27341**	RunNo: **37106**
Prep Date: **9/6/2016**	Analysis Date: **9/10/2016**	SeqNo: **1150325** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	9.0	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	3.8	10								J
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	4.7	10								J
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609076**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **mb-27341**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **27341**	RunNo: **37106**
Prep Date: **9/6/2016**	Analysis Date: **9/10/2016**	SeqNo: **1150325** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	99		200.0		49.5	15	123			
Surr: Phenol-d5	98		200.0		49.2	4.13	124			
Surr: 2,4,6-Tribromophenol	120		200.0		60.0	18.4	134			
Surr: Nitrobenzene-d5	74		100.0		73.8	28.8	134			
Surr: 2-Fluorobiphenyl	71		100.0		71.3	35.9	125			
Surr: 4-Terphenyl-d14	41		100.0		41.5	15	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609076**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **lcs-27341**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **27341**	RunNo: **37106**
Prep Date: **9/6/2016**	Analysis Date: **9/10/2016**	SeqNo: **1150326** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	73	10	100.0	0	73.1	35	113			
4-Chloro-3-methylphenol	100	10	200.0	0	51.3	40.7	114			
2-Chlorophenol	100	10	200.0	0	51.0	37.6	113			
1,4-Dichlorobenzene	49	10	100.0	0	48.6	37.7	106			
2,4-Dinitrotoluene	80	10	100.0	0	79.5	37	91			
N-Nitrosodi-n-propylamine	88	10	100.0	0	88.2	45.4	105			
4-Nitrophenol	67	10	200.0	0	33.6	33.4	104			
Pentachlorophenol	98	20	200.0	0	49.0	29.5	94.9			
Phenol	76	10	200.0	0	38.1	30.6	119			
Pyrene	84	10	100.0	0	84.0	26.2	120			
1,2,4-Trichlorobenzene	56	10	100.0	0	56.2	39.9	125			
Surr: 2-Fluorophenol	83		200.0		41.5	15	123			
Surr: Phenol-d5	86		200.0		42.8	4.13	124			
Surr: 2,4,6-Tribromophenol	120		200.0		59.1	18.4	134			
Surr: Nitrobenzene-d5	81		100.0		80.8	28.8	134			
Surr: 2-Fluorobiphenyl	73		100.0		73.5	35.9	125			
Surr: 4-Terphenyl-d14	52		100.0		52.3	15	146			

Sample ID **lcsd-27341**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **27341**	RunNo: **37109**
Prep Date: **9/6/2016**	Analysis Date: **9/10/2016**	SeqNo: **1150577** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	97	10	100.0	0	97.4	35	113	28.5	46.7	
4-Chloro-3-methylphenol	150	10	200.0	0	74.0	40.7	114	36.2	29.4	R
2-Chlorophenol	130	10	200.0	0	64.6	37.6	113	23.5	38.7	
1,4-Dichlorobenzene	58	10	100.0	0	58.4	37.7	106	18.2	25.3	
2,4-Dinitrotoluene	100	10	100.0	0	102	37	91	25.1	34.7	S
N-Nitrosodi-n-propylamine	100	10	100.0	0	101	45.4	105	13.7	30.2	
4-Nitrophenol	110	10	200.0	0	54.0	33.4	104	46.6	42.2	R
Pentachlorophenol	120	20	200.0	0	59.3	29.5	94.9	18.9	35.5	
Phenol	100	10	200.0	0	52.1	30.6	119	31.1	25.5	R
Pyrene	93	10	100.0	0	93.0	26.2	120	10.2	27.1	
1,2,4-Trichlorobenzene	71	10	100.0	0	71.1	39.9	125	23.4	43.3	
Surr: 2-Fluorophenol	110		200.0		54.5	15	123	0	0	
Surr: Phenol-d5	110		200.0		55.7	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	150		200.0		74.5	18.4	134	0	0	
Surr: Nitrobenzene-d5	99		100.0		98.7	28.8	134	0	0	
Surr: 2-Fluorobiphenyl	86		100.0		86.5	35.9	125	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609076**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	**lcsd-27341**	SampType:	**LCSD**		TestCode:	**EPA Method 8270C: Semivolatiles**					
Client ID:	**LCSS02**	Batch ID:	**27341**		RunNo:	**37109**					
Prep Date:	**9/6/2016**	Analysis Date:	**9/10/2016**		SeqNo:	**1150577**	Units:	**µg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14		60		100.0		60.3	15	146	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1609076 RcptNo: 1

Received by/date: AT 09/01/16

Logged By: Lindsay Mangin 9/1/2016 4:30:00 PM

Completed By: Lindsay Mangin 9/2/2016 9:11:51 AM

Reviewed By: AG 09/02/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 6 2 (<2 or >12 unless noted)

Adjusted? Yes

Checked by: AJ

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: ____ Date ____

By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: ____

Client Instructions: ____

17. Additional remarks: For metals analysis: added 0.4mL HNO3 to -003D for acceptable pH.

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.9	Good	Yes			

9/2@1200 AJ

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

92 GIANT CROSSING ROAD, GALLUP, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

X Standard ☐ Rush

Project Name:

2016 ANNUAL/QUARTERLY

Project #:

OW WELLS

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON

On Ice: X Yes ☐ No

Sample Temperature: 3.9

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609076	8260+MTBE	8015D	8270 + Phenols	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	NITRATES	CYANIDE	Air Bubbles (Y or N)
8/31/2016	842	AQUEOUS	OW-14	MISC	MISC	-001	X	X		X	X			
8/31/2016	940	AQUEOUS	OW-29	MISC	MISC	-002	X	X		X	X			
8/31/2016	1045	AQUEOUS	OW-13	MISC	MISC	-003	X	X		X	X			
8/31/2016	1150	AQUEOUS	OW-30	MISC	MISC	-004	X	X		X	X			
8/31/2016	1440	AQUEOUS	PW-3	MISC	MISC	-005	X		X	X	X	X	X	
8/31/2016	1510	AQUEOUS	PW-4	MISC	MISC	-006	X		X	X	X	X	X	
8/31/2016		AQUEOUS	TRIP BLANK			-007	X							
8/31/2016	700	AQUEOUS	FIELD BLANK			-008	X							

Analysis Request

Date	Time	Relinquished by:	Received by:	Date	Time
9/1/16	1430			9/1/16	2:35
9/1/16	1630			09/01/16	1630

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 18, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 Annual/Quarterly OrderNo.: 1609078

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 7 sample(s) on 9/1/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 10:46:00 AM
Lab ID: 1609078-001 **Matrix:** AQUEOUS **Received Date:** 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/6/2016 3:32:14 PM	27339
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/6/2016 3:32:14 PM	27339
Surr: DNOP	135	0	77.1-144		%Rec	1	9/6/2016 3:32:14 PM	27339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	9/6/2016 1:08:05 PM	R37021
Surr: BFB	83.0	0	66.4-120		%Rec	1	9/6/2016 1:08:05 PM	R37021
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.27	0.050	0.10		mg/L	1	9/14/2016 5:56:11 PM	R37182
Chloride	97	1.0	10		mg/L	20	9/3/2016 12:33:04 AM	R36994
Nitrogen, Nitrite (As N)	ND	0.052	0.10		mg/L	1	9/3/2016 12:20:39 AM	R36994
Bromide	1.1	0.044	0.10		mg/L	1	9/3/2016 12:20:39 AM	R36994
Nitrogen, Nitrate (As N)	10	0.81	2.0	*	mg/L	20	9/3/2016 12:33:04 AM	R36994
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/14/2016 5:56:11 PM	R37182
Sulfate	99	2.8	10		mg/L	20	9/3/2016 12:33:04 AM	R36994
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.13	0.0013	0.0020		mg/L	1	9/16/2016 11:49:28 AM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 11:49:28 AM	A37246
Calcium	100	0.50	1.0		mg/L	1	9/16/2016 11:49:28 AM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 11:49:28 AM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 11:49:28 AM	A37246
Iron	ND	0.020	0.020		mg/L	1	9/16/2016 11:49:28 AM	A37246
Magnesium	17	0.50	1.0		mg/L	1	9/16/2016 11:49:28 AM	A37246
Manganese	0.13	0.00032	0.0020	*	mg/L	1	9/16/2016 11:49:28 AM	A37246
Potassium	ND	0.50	1.0		mg/L	1	9/16/2016 11:49:28 AM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 11:49:28 AM	A37246
Sodium	340	2.5	5.0		mg/L	5	9/16/2016 11:51:27 AM	A37246
Zinc	0.37	0.0028	0.010		mg/L	1	9/16/2016 11:49:28 AM	A37246
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.14	0.00079	0.0020		mg/L	1	9/21/2016 4:46:08 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 4:46:08 PM	27573
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 4:46:08 PM	27573
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 4:46:08 PM	27573
Iron	0.29	0.020	0.020		mg/L	1	9/21/2016 4:46:08 PM	27573
Manganese	0.25	0.00027	0.0020	*	mg/L	1	9/21/2016 4:46:08 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 4:46:08 PM	27573
Zinc	0.0028	0.0027	0.010	J	mg/L	1	9/21/2016 4:46:08 PM	27573
EPA 200.8: DISSOLVED METALS							Analyst: **DBD**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 10:46:00 AM
Lab ID: 1609078-001 **Matrix:** AQUEOUS **Received Date:** 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **DBD**	
Arsenic	ND	0.0028	0.020		mg/L	20	9/16/2016 3:43:21 PM	B37281
Lead	ND	0.00017	0.00050		mg/L	1	9/13/2016 11:15:02 PM	D37166
Selenium	0.0083	0.0042	0.020	J	mg/L	20	9/16/2016 3:43:21 PM	B37281
Uranium	0.013	0.00026	0.0025		mg/L	5	9/15/2016 5:51:39 PM	D37239
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0041	0.0021	0.010	J	mg/L	10	10/3/2016 2:43:56 PM	27450
Lead	0.00047	0.000081	0.00050	J	mg/L	1	9/14/2016 5:45:59 PM	27450
Selenium	ND	0.020	0.020		mg/L	20	10/3/2016 3:11:12 PM	27450
Uranium	0.019	0.00017	0.00050		mg/L	1	9/14/2016 5:45:59 PM	27450
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Toluene	ND	0.12	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Methyl tert-butyl ether (MTBE)	1.8	0.21	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Naphthalene	ND	0.093	2.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Acetone	ND	4.9	10		µg/L	1	9/2/2016 10:44:00 PM	A36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Bromoform	ND	0.10	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
2-Butanone	ND	0.74	10		µg/L	1	9/2/2016 10:44:00 PM	A36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/2/2016 10:44:00 PM	A36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Chloroform	ND	0.089	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/2/2016 10:44:00 PM	A36950

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 10:46:00 AM
Lab ID: 1609078-001 **Matrix:** AQUEOUS **Received Date:** 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
2-Hexanone	ND	0.84	10		µg/L	1	9/2/2016 10:44:00 PM	A36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/2/2016 10:44:00 PM	A36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Styrene	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/2/2016 10:44:00 PM	A36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/2/2016 10:44:00 PM	A36950
Surr: 1,2-Dichloroethane-d4	105	0	70-130		%Rec	1	9/2/2016 10:44:00 PM	A36950
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	1	9/2/2016 10:44:00 PM	A36950

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Client Sample ID: NAPIS-1
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 10:46:00 AM
Lab ID: 1609078-001
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: Dibromofluoromethane	103	0	70-130		%Rec	1	9/2/2016 10:44:00 PM	A36950
Surr: Toluene-d8	103	0	70-130		%Rec	1	9/2/2016 10:44:00 PM	A36950

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 11:05:00 AM
Lab ID: 1609078-002
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	1.1	0.69	1.0		mg/L	1	9/6/2016 3:54:07 PM	27339
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/6/2016 3:54:07 PM	27339
Surr: DNOP	134	0	77.1-144		%Rec	1	9/6/2016 3:54:07 PM	27339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **RAA**	
Gasoline Range Organics (GRO)	0.75	0.025	0.050		mg/L	1	9/6/2016 1:32:20 PM	R37021
Surr: BFB	151	0	66.4-120	S	%Rec	1	9/6/2016 1:32:20 PM	R37021
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	1.7	0.25	0.50		mg/L	5	9/14/2016 6:08:36 PM	R37182
Chloride	300	1.0	10		mg/L	20	9/3/2016 1:22:43 AM	R36994
Nitrogen, Nitrite (As N)	ND	0.26	0.50		mg/L	5	9/3/2016 1:10:18 AM	R36994
Bromide	1.3	0.22	0.50		mg/L	5	9/3/2016 1:10:18 AM	R36994
Nitrogen, Nitrate (As N)	ND	0.20	0.50		mg/L	5	9/3/2016 1:10:18 AM	R36994
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5	H	mg/L	5	9/14/2016 6:08:36 PM	R37182
Sulfate	7.8	0.71	2.5		mg/L	5	9/3/2016 1:10:18 AM	R36994
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	1.4	0.0066	0.010		mg/L	5	9/16/2016 11:55:07 AM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 11:53:25 AM	A37246
Calcium	82	0.50	1.0		mg/L	1	9/16/2016 11:53:25 AM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 11:53:25 AM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 11:53:25 AM	A37246
Iron	1.6	0.10	0.10	*	mg/L	5	9/16/2016 11:55:07 AM	A37246
Magnesium	15	0.50	1.0		mg/L	1	9/16/2016 11:53:25 AM	A37246
Manganese	1.1	0.0016	0.010	*	mg/L	5	9/16/2016 11:55:07 AM	A37246
Potassium	ND	0.50	1.0		mg/L	1	9/16/2016 11:53:25 AM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 11:53:25 AM	A37246
Sodium	370	2.5	5.0		mg/L	5	9/16/2016 11:55:07 AM	A37246
Zinc	0.17	0.0028	0.010		mg/L	1	9/16/2016 11:53:25 AM	A37246
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	2.0	0.0040	0.010		mg/L	5	9/29/2016 1:43:39 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 4:48:02 PM	27573
Chromium	0.011	0.0027	0.0060		mg/L	1	9/21/2016 4:48:02 PM	27573
Copper	0.010	0.0030	0.0060		mg/L	1	9/21/2016 4:48:02 PM	27573
Iron	7.8	0.20	0.20	*	mg/L	10	10/3/2016 1:30:55 PM	27573
Manganese	1.4	0.0014	0.010	*	mg/L	5	9/29/2016 1:43:39 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 4:48:02 PM	27573
Zinc	0.057	0.0027	0.010		mg/L	1	9/21/2016 4:48:02 PM	27573
EPA 200.8: DISSOLVED METALS							Analyst: **DBD**	

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Lab ID: 1609078-002
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **DBD**	
Arsenic	0.0075	0.00014	0.0010		mg/L	1	9/13/2016 11:18:05 PM	D37166
Lead	ND	0.00017	0.00050		mg/L	1	9/13/2016 11:18:05 PM	D37166
Selenium	0.0066	0.0042	0.020	J	mg/L	20	9/16/2016 3:46:25 PM	B37281
Uranium	0.00031	0.00026	0.0025	J	mg/L	5	9/15/2016 5:54:42 PM	D37239
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0087	0.0021	0.010	J	mg/L	10	10/3/2016 2:49:04 PM	27450
Lead	0.0081	0.000081	0.00050		mg/L	1	9/14/2016 5:55:04 PM	27450
Selenium	0.011	0.0037	0.020	J	mg/L	20	10/3/2016 3:16:20 PM	27450
Uranium	0.0013	0.00017	0.00050		mg/L	1	9/14/2016 5:55:04 PM	27450
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	5.0	0.096	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Toluene	ND	0.12	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Ethylbenzene	1.5	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Methyl tert-butyl ether (MTBE)	180	0.21	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Naphthalene	2.1	0.093	2.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1-Methylnaphthalene	2.0	0.20	4.0	J	µg/L	1	9/6/2016 1:51:00 PM	R37011
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Acetone	15	4.9	10		µg/L	1	9/6/2016 1:51:00 PM	R37011
Bromobenzene	ND	0.098	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Bromoform	ND	0.10	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Bromomethane	ND	0.78	3.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
2-Butanone	ND	0.74	10		µg/L	1	9/6/2016 1:51:00 PM	R37011
Carbon disulfide	ND	0.60	10		µg/L	1	9/6/2016 1:51:00 PM	R37011
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Chloroethane	ND	0.19	2.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Chloroform	ND	0.089	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Chloromethane	ND	0.21	3.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/6/2016 1:51:00 PM	R37011

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 11:05:00 AM
Lab ID: 1609078-002
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Dibromomethane	ND	0.12	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,1-Dichloroethane	0.23	0.11	1.0	J	µg/L	1	9/6/2016 1:51:00 PM	R37011
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
2-Hexanone	ND	0.84	10		µg/L	1	9/6/2016 1:51:00 PM	R37011
Isopropylbenzene	0.42	0.10	1.0	J	µg/L	1	9/6/2016 1:51:00 PM	R37011
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/6/2016 1:51:00 PM	R37011
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
n-Butylbenzene	0.17	0.16	3.0	J	µg/L	1	9/6/2016 1:51:00 PM	R37011
n-Propylbenzene	0.26	0.13	1.0	J	µg/L	1	9/6/2016 1:51:00 PM	R37011
sec-Butylbenzene	0.36	0.12	1.0	J	µg/L	1	9/6/2016 1:51:00 PM	R37011
Styrene	ND	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
tert-Butylbenzene	0.24	0.12	1.0	J	µg/L	1	9/6/2016 1:51:00 PM	R37011
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/6/2016 1:51:00 PM	R37011
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/6/2016 1:51:00 PM	R37011
Surr: 1,2-Dichloroethane-d4	108	0	70-130		%Rec	1	9/6/2016 1:51:00 PM	R37011
Surr: 4-Bromofluorobenzene	107	0	70-130		%Rec	1	9/6/2016 1:51:00 PM	R37011

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 11:05:00 AM
Lab ID: 1609078-002
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: Dibromofluoromethane	105	0	70-130		%Rec	1	9/6/2016 1:51:00 PM	R37011
Surr: Toluene-d8	99.7	0	70-130		%Rec	1	9/6/2016 1:51:00 PM	R37011

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 11:20:00 AM
Lab ID: 1609078-003
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/6/2016 4:16:06 PM	27339
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/6/2016 4:16:06 PM	27339
Surr: DNOP	135	0	77.1-144		%Rec	1	9/6/2016 4:16:06 PM	27339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **RAA**	
Gasoline Range Organics (GRO)	0.18	0.025	0.050		mg/L	1	9/6/2016 1:56:36 PM	R37021
Surr: BFB	104	0	66.4-120		%Rec	1	9/6/2016 1:56:36 PM	R37021
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.86	0.050	0.10		mg/L	1	9/14/2016 6:21:01 PM	R37182
Chloride	210	1.0	10		mg/L	20	9/3/2016 1:47:32 AM	R36994
Nitrogen, Nitrite (As N)	ND	0.052	0.10		mg/L	1	9/3/2016 1:35:08 AM	R36994
Bromide	1.2	0.044	0.10		mg/L	1	9/3/2016 1:35:08 AM	R36994
Nitrogen, Nitrate (As N)	0.25	0.041	0.10		mg/L	1	9/3/2016 1:35:08 AM	R36994
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/14/2016 6:21:01 PM	R37182
Sulfate	36	0.14	0.50		mg/L	1	9/3/2016 1:35:08 AM	R36994
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	1.0	0.0066	0.010		mg/L	5	9/16/2016 11:59:03 AM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 11:57:08 AM	A37246
Calcium	86	0.50	1.0		mg/L	1	9/16/2016 11:57:08 AM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 11:57:08 AM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 11:57:08 AM	A37246
Iron	0.059	0.020	0.020		mg/L	1	9/16/2016 11:57:08 AM	A37246
Magnesium	14	0.50	1.0		mg/L	1	9/16/2016 11:57:08 AM	A37246
Manganese	1.9	0.0016	0.010	*	mg/L	5	9/16/2016 11:59:03 AM	A37246
Potassium	0.62	0.50	1.0	J	mg/L	1	9/16/2016 11:57:08 AM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 11:57:08 AM	A37246
Sodium	280	2.5	5.0		mg/L	5	9/16/2016 11:59:03 AM	A37246
Zinc	0.041	0.0028	0.010		mg/L	1	9/16/2016 11:57:08 AM	A37246
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.95	0.00079	0.0020		mg/L	1	9/21/2016 4:49:45 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 4:49:45 PM	27573
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 4:49:45 PM	27573
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 4:49:45 PM	27573
Iron	0.93	0.020	0.020	*	mg/L	1	9/21/2016 4:49:45 PM	27573
Manganese	2.7	0.0014	0.010	*	mg/L	5	9/29/2016 1:51:21 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 4:49:45 PM	27573
Zinc	0.0067	0.0027	0.010	J	mg/L	1	9/21/2016 4:49:45 PM	27573
EPA 200.8: DISSOLVED METALS							Analyst: **DBD**	

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 11:20:00 AM
Lab ID: 1609078-003
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **DBD**	
Arsenic	0.0029	0.00014	0.0010		mg/L	1	9/13/2016 11:21:09 PM	D37166
Lead	ND	0.00017	0.00050		mg/L	1	9/13/2016 11:21:09 PM	D37166
Selenium	0.0049	0.0011	0.0050	J	mg/L	5	9/15/2016 5:57:45 PM	D37239
Uranium	0.0075	0.00026	0.0025		mg/L	5	9/15/2016 5:57:45 PM	D37239
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0050	0.0042	0.020	J	mg/L	20	10/3/2016 5:47:56 PM	27450
Lead	0.00044	0.000081	0.00050	J	mg/L	1	9/14/2016 5:58:05 PM	27450
Selenium	ND	0.020	0.020		mg/L	20	10/3/2016 3:26:38 PM	27450
Uranium	0.014	0.00017	0.00050		mg/L	1	9/14/2016 5:58:05 PM	27450
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	7.1	0.096	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Toluene	ND	0.12	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Ethylbenzene	3.2	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Methyl tert-butyl ether (MTBE)	45	0.21	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Naphthalene	5.0	0.093	2.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1-Methylnaphthalene	2.8	0.20	4.0	J	µg/L	1	9/2/2016 11:31:00 PM	A36950
2-Methylnaphthalene	1.8	0.16	4.0	J	µg/L	1	9/2/2016 11:31:00 PM	A36950
Acetone	9.7	4.9	10	J	µg/L	1	9/2/2016 11:31:00 PM	A36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Bromoform	ND	0.10	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
2-Butanone	ND	0.74	10		µg/L	1	9/2/2016 11:31:00 PM	A36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/2/2016 11:31:00 PM	A36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Chloroform	ND	0.089	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/2/2016 11:31:00 PM	A36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 11:20:00 AM
Lab ID: 1609078-003 **Matrix:** AQUEOUS **Received Date:** 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
2-Hexanone	ND	0.84	10		µg/L	1	9/2/2016 11:31:00 PM	A36950
Isopropylbenzene	0.25	0.10	1.0	J	µg/L	1	9/2/2016 11:31:00 PM	A36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/2/2016 11:31:00 PM	A36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
n-Propylbenzene	0.26	0.13	1.0	J	µg/L	1	9/2/2016 11:31:00 PM	A36950
sec-Butylbenzene	0.18	0.12	1.0	J	µg/L	1	9/2/2016 11:31:00 PM	A36950
Styrene	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
tert-Butylbenzene	0.20	0.12	1.0	J	µg/L	1	9/2/2016 11:31:00 PM	A36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/2/2016 11:31:00 PM	A36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/2/2016 11:31:00 PM	A36950
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	1	9/2/2016 11:31:00 PM	A36950
Surr: 4-Bromofluorobenzene	106	0	70-130		%Rec	1	9/2/2016 11:31:00 PM	A36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 11:20:00 AM
Lab ID: 1609078-003
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: Dibromofluoromethane	99.1	0	70-130		%Rec	1	9/2/2016 11:31:00 PM	A36950
Surr: Toluene-d8	102	0	70-130		%Rec	1	9/2/2016 11:31:00 PM	A36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 11:30:00 AM
Lab ID: 1609078-004
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/6/2016 4:37:53 PM	27339
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/6/2016 4:37:53 PM	27339
Surr: DNOP	135	0	77.1-144		%Rec	1	9/6/2016 4:37:53 PM	27339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	9/6/2016 2:20:53 PM	R37021
Surr: BFB	89.9	0	66.4-120		%Rec	1	9/6/2016 2:20:53 PM	R37021
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	2.1	0.25	0.50		mg/L	5	9/14/2016 6:33:26 PM	R37182
Chloride	310	1.0	10		mg/L	20	9/3/2016 2:12:21 AM	R36994
Nitrogen, Nitrite (As N)	ND	0.26	0.50		mg/L	5	9/3/2016 1:59:57 AM	R36994
Bromide	1.7	0.22	0.50		mg/L	5	9/3/2016 1:59:57 AM	R36994
Nitrogen, Nitrate (As N)	5.0	0.20	0.50		mg/L	5	9/3/2016 1:59:57 AM	R36994
Phosphorus, Orthophosphate (As P)	1.1	0.38	2.5	JH	mg/L	5	9/14/2016 6:33:26 PM	R37182
Sulfate	210	0.71	2.5		mg/L	5	9/3/2016 1:59:57 AM	R36994
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.13	0.0013	0.0020		mg/L	1	9/16/2016 12:01:00 PM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 12:01:00 PM	A37246
Calcium	23	0.50	1.0		mg/L	1	9/16/2016 12:01:00 PM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 12:01:00 PM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 12:01:00 PM	A37246
Iron	0.31	0.020	0.020	*	mg/L	1	9/16/2016 12:01:00 PM	A37246
Magnesium	3.0	0.50	1.0		mg/L	1	9/16/2016 12:01:00 PM	A37246
Manganese	0.11	0.00032	0.0020	*	mg/L	1	9/16/2016 12:01:00 PM	A37246
Potassium	2.4	0.50	1.0		mg/L	1	9/16/2016 12:01:00 PM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 12:01:00 PM	A37246
Sodium	440	2.5	5.0		mg/L	5	9/16/2016 12:03:08 PM	A37246
Zinc	0.047	0.0028	0.010		mg/L	1	9/16/2016 12:01:00 PM	A37246
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.98	0.00079	0.0020		mg/L	1	9/21/2016 4:51:28 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 4:51:28 PM	27573
Chromium	0.025	0.0027	0.0060		mg/L	1	9/21/2016 4:51:28 PM	27573
Copper	0.030	0.0030	0.0060		mg/L	1	9/21/2016 4:51:28 PM	27573
Iron	11	0.40	0.40	*	mg/L	20	9/29/2016 1:53:14 PM	27573
Manganese	0.96	0.00027	0.0020	*	mg/L	1	9/21/2016 4:51:28 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 4:51:28 PM	27573
Zinc	0.15	0.0027	0.010		mg/L	1	9/21/2016 4:51:28 PM	27573
EPA 200.8: DISSOLVED METALS							Analyst: **DBD**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 11:30:00 AM
Lab ID: 1609078-004 **Matrix:** AQUEOUS **Received Date:** 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **DBD**	
Arsenic	0.0039	0.0028	0.020	J	mg/L	20	9/16/2016 3:49:28 PM	B37281
Lead	0.0010	0.00084	0.0025	J	mg/L	5	9/15/2016 6:00:49 PM	D37239
Selenium	0.0096	0.0042	0.020	J	mg/L	20	9/16/2016 3:49:28 PM	B37281
Uranium	0.023	0.00026	0.0025		mg/L	5	9/15/2016 6:00:49 PM	D37239
200.8 ICPMS METALS:TOTAL							Analyst: **DBD**	
Arsenic	0.0048	0.0021	0.010	J	mg/L	10	9/16/2016 6:46:36 PM	27450
Lead	0.025	0.000081	0.00050	*	mg/L	1	9/14/2016 6:01:05 PM	27450
Selenium	0.0086	0.0019	0.010	J	mg/L	10	9/16/2016 6:46:36 PM	27450
Uranium	0.029	0.00087	0.0025		mg/L	5	9/19/2016 3:53:01 PM	27450
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Toluene	ND	0.12	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Methyl tert-butyl ether (MTBE)	8.4	0.21	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Naphthalene	0.10	0.093	2.0	J	µg/L	1	9/2/2016 11:54:00 PM	A36950
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Acetone	11	4.9	10		µg/L	1	9/2/2016 11:54:00 PM	A36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Bromoform	ND	0.10	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
2-Butanone	ND	0.74	10		µg/L	1	9/2/2016 11:54:00 PM	A36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/2/2016 11:54:00 PM	A36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Chloroform	ND	0.089	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/2/2016 11:54:00 PM	A36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 11:30:00 AM
Lab ID: 1609078-004 **Matrix:** AQUEOUS **Received Date:** 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
2-Hexanone	ND	0.84	10		µg/L	1	9/2/2016 11:54:00 PM	A36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/2/2016 11:54:00 PM	A36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Styrene	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/2/2016 11:54:00 PM	A36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/2/2016 11:54:00 PM	A36950
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	1	9/2/2016 11:54:00 PM	A36950
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	9/2/2016 11:54:00 PM	A36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 11:30:00 AM
Lab ID: 1609078-004
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: Dibromofluoromethane	100	0	70-130		%Rec	1	9/2/2016 11:54:00 PM	A36950
Surr: Toluene-d8	103	0	70-130		%Rec	1	9/2/2016 11:54:00 PM	A36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OAPIS-1
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 12:20:00 PM
Lab ID: 1609078-005 **Matrix:** AQUEOUS **Received Date:** 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	9.5	0.69	1.0		mg/L	1	9/6/2016 4:59:30 PM	27339
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/6/2016 4:59:30 PM	27339
Surr: DNOP	132	0	77.1-144		%Rec	1	9/6/2016 4:59:30 PM	27339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **RAA**	
Gasoline Range Organics (GRO)	1.7	0.13	0.25		mg/L	5	9/7/2016 11:42:20 AM	R37047
Surr: BFB	121	0	66.4-120	S	%Rec	5	9/7/2016 11:42:20 AM	R37047
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	1.2	0.25	0.50		mg/L	5	9/14/2016 7:10:39 PM	A37205
Chloride	1900	10	100		mg/L	200	9/14/2016 7:23:04 PM	A37205
Nitrogen, Nitrite (As N)	ND	0.26	0.50		mg/L	5	9/3/2016 2:24:45 AM	R36994
Bromide	4.7	0.22	0.50		mg/L	5	9/3/2016 2:24:45 AM	R36994
Nitrogen, Nitrate (As N)	ND	0.20	0.50		mg/L	5	9/3/2016 2:24:45 AM	R36994
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5	H	mg/L	5	9/14/2016 7:10:39 PM	A37205
Sulfate	14	0.71	2.5		mg/L	5	9/3/2016 2:24:45 AM	R36994
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.85	0.0013	0.0020		mg/L	1	9/16/2016 12:05:01 PM	A37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 12:05:01 PM	A37246
Calcium	170	2.5	5.0		mg/L	5	9/16/2016 12:06:50 PM	A37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 12:05:01 PM	A37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 12:05:01 PM	A37246
Iron	7.5	0.40	0.40	*	mg/L	20	9/19/2016 3:33:17 PM	B37295
Magnesium	33	0.50	1.0		mg/L	1	9/16/2016 12:05:01 PM	A37246
Manganese	1.8	0.0016	0.010	*	mg/L	5	9/16/2016 12:06:50 PM	A37246
Potassium	3.8	0.50	1.0		mg/L	1	9/16/2016 12:05:01 PM	A37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 12:05:01 PM	A37246
Sodium	1400	10	20		mg/L	20	9/19/2016 3:33:17 PM	B37295
Zinc	0.0059	0.0028	0.010	J	mg/L	1	9/16/2016 12:05:01 PM	A37246
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.89	0.00079	0.0020		mg/L	1	9/21/2016 4:53:26 PM	27573
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 4:53:26 PM	27573
Chromium	0.0053	0.0027	0.0060	J	mg/L	1	9/21/2016 4:53:26 PM	27573
Copper	0.014	0.0030	0.0060		mg/L	1	9/21/2016 4:53:26 PM	27573
Iron	9.1	0.20	0.20	*	mg/L	10	10/3/2016 1:32:55 PM	27573
Manganese	1.9	0.0014	0.010	*	mg/L	5	9/29/2016 1:54:59 PM	27573
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 4:53:26 PM	27573
Zinc	0.064	0.0027	0.010		mg/L	1	9/21/2016 4:53:26 PM	27573
EPA 200.8: DISSOLVED METALS							Analyst: **DBD**	

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OAPIS-1
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 12:20:00 PM
Lab ID: 1609078-005
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **DBD**	
Arsenic	0.016	0.00069	0.0050	*	mg/L	5	9/15/2016 6:10:03 PM	D37239
Lead	0.00099	0.00084	0.0025	J	mg/L	5	9/15/2016 6:10:03 PM	D37239
Selenium	0.025	0.0011	0.0050		mg/L	5	9/15/2016 6:10:03 PM	D37239
Uranium	0.015	0.00026	0.0025		mg/L	5	9/15/2016 6:10:03 PM	D37239
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.018	0.0042	0.020	J*	mg/L	20	9/19/2016 3:56:02 PM	27450
Lead	0.015	0.000081	0.00050	*	mg/L	1	9/14/2016 6:04:06 PM	27450
Selenium	ND	0.050	0.050		mg/L	50	10/3/2016 3:31:47 PM	27450
Uranium	0.020	0.00017	0.00050		mg/L	1	9/14/2016 6:04:06 PM	27450
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Acenaphthene	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Acenaphthylene	ND	2.4	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Aniline	ND	2.4	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Anthracene	ND	2.5	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Azobenzene	ND	2.7	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Benzoic acid	ND	2.6	20		µg/L	1	9/11/2016 12:53:46 AM	27341
Benzyl alcohol	ND	3.0	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Bis(2-ethylhexyl)phthalate	3.3	2.6	10	J	µg/L	1	9/11/2016 12:53:46 AM	27341
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Carbazole	ND	2.3	10		µg/L	1	9/11/2016 12:53:46 AM	27341
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
4-Chloroaniline	ND	2.7	10		µg/L	1	9/11/2016 12:53:46 AM	27341
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/11/2016 12:53:46 AM	27341
2-Chlorophenol	ND	2.2	10		µg/L	1	9/11/2016 12:53:46 AM	27341
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Chrysene	ND	2.8	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Di-n-octyl phthalate	3.3	2.0	10	J	µg/L	1	9/11/2016 12:53:46 AM	27341
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/11/2016 12:53:46 AM	27341

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OAPIS-1
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 12:20:00 PM
Lab ID: 1609078-005 **Matrix:** AQUEOUS **Received Date:** 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Dibenzofuran	ND	2.5	10		µg/L	1	9/11/2016 12:53:46 AM	27341
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/11/2016 12:53:46 AM	27341
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/11/2016 12:53:46 AM	27341
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/11/2016 12:53:46 AM	27341
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Diethyl phthalate	ND	2.7	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Dimethyl phthalate	6.0	2.4	10	J	µg/L	1	9/11/2016 12:53:46 AM	27341
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/11/2016 12:53:46 AM	27341
2,4-Dimethylphenol	11	3.0	10		µg/L	1	9/11/2016 12:53:46 AM	27341
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/11/2016 12:53:46 AM	27341
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/11/2016 12:53:46 AM	27341
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/11/2016 12:53:46 AM	27341
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Fluoranthene	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Fluorene	ND	2.7	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Hexachloroethane	ND	2.4	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Isophorone	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
1-Methylnaphthalene	23	2.9	10		µg/L	1	9/11/2016 12:53:46 AM	27341
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/11/2016 12:53:46 AM	27341
2-Methylphenol	ND	2.5	10		µg/L	1	9/11/2016 12:53:46 AM	27341
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/11/2016 12:53:46 AM	27341
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/11/2016 12:53:46 AM	27341
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/11/2016 12:53:46 AM	27341
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Naphthalene	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
2-Nitroaniline	ND	2.8	10		µg/L	1	9/11/2016 12:53:46 AM	27341
3-Nitroaniline	ND	2.9	10		µg/L	1	9/11/2016 12:53:46 AM	27341
4-Nitroaniline	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Nitrobenzene	ND	2.8	10		µg/L	1	9/11/2016 12:53:46 AM	27341
2-Nitrophenol	ND	2.4	10		µg/L	1	9/11/2016 12:53:46 AM	27341
4-Nitrophenol	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Pentachlorophenol	ND	2.3	20		µg/L	1	9/11/2016 12:53:46 AM	27341
Phenanthrene	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Phenol	ND	2.0	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Pyrene	ND	3.1	10		µg/L	1	9/11/2016 12:53:46 AM	27341

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Client Sample ID: OAPIS-1
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 12:20:00 PM
Lab ID: 1609078-005 **Matrix:** AQUEOUS **Received Date:** 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **JDC**	
Pyridine	ND	2.2	10		µg/L	1	9/11/2016 12:53:46 AM	27341
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/11/2016 12:53:46 AM	27341
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/11/2016 12:53:46 AM	27341
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/11/2016 12:53:46 AM	27341
Surr: 2-Fluorophenol	32.4	0	15-123		%Rec	1	9/11/2016 12:53:46 AM	27341
Surr: Phenol-d5	34.2	0	15-124		%Rec	1	9/11/2016 12:53:46 AM	27341
Surr: 2,4,6-Tribromophenol	41.8	0	18.4-134		%Rec	1	9/11/2016 12:53:46 AM	27341
Surr: Nitrobenzene-d5	51.8	0	28.8-134		%Rec	1	9/11/2016 12:53:46 AM	27341
Surr: 2-Fluorobiphenyl	45.9	0	35.9-125		%Rec	1	9/11/2016 12:53:46 AM	27341
Surr: 4-Terphenyl-d14	37.4	0	15-146		%Rec	1	9/11/2016 12:53:46 AM	27341
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	180	0.48	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Toluene	1.5	0.59	5.0	J	µg/L	5	9/6/2016 11:30:00 AM	R37011
Ethylbenzene	23	0.56	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Methyl tert-butyl ether (MTBE)	240	1.1	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,2,4-Trimethylbenzene	12	0.55	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Naphthalene	3.0	0.46	10	J	µg/L	5	9/6/2016 11:30:00 AM	R37011
1-Methylnaphthalene	71	1.0	20		µg/L	5	9/6/2016 11:30:00 AM	R37011
2-Methylnaphthalene	ND	0.79	20		µg/L	5	9/6/2016 11:30:00 AM	R37011
Acetone	31	25	50	J	µg/L	5	9/6/2016 11:30:00 AM	R37011
Bromobenzene	ND	0.49	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Bromodichloromethane	ND	0.70	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Bromoform	ND	0.51	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Bromomethane	ND	3.9	15		µg/L	5	9/6/2016 11:30:00 AM	R37011
2-Butanone	ND	3.7	50		µg/L	5	9/6/2016 11:30:00 AM	R37011
Carbon disulfide	ND	3.0	50		µg/L	5	9/6/2016 11:30:00 AM	R37011
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Chlorobenzene	ND	0.57	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Chloroethane	ND	0.96	10		µg/L	5	9/6/2016 11:30:00 AM	R37011
Chloroform	ND	0.44	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Chloromethane	ND	1.1	15		µg/L	5	9/6/2016 11:30:00 AM	R37011
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	9/6/2016 11:30:00 AM	R37011

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Lab ID: 1609078-005 **Matrix:** AQUEOUS **Received Date:** 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Dibromochloromethane	ND	0.43	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Dibromomethane	ND	0.60	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,1-Dichloroethane	1.4	0.54	5.0	J	µg/L	5	9/6/2016 11:30:00 AM	R37011
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
2,2-Dichloropropane	ND	0.83	10		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
2-Hexanone	ND	4.2	50		µg/L	5	9/6/2016 11:30:00 AM	R37011
Isopropylbenzene	3.1	0.52	5.0	J	µg/L	5	9/6/2016 11:30:00 AM	R37011
4-Isopropyltoluene	0.99	0.70	5.0	J	µg/L	5	9/6/2016 11:30:00 AM	R37011
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	9/6/2016 11:30:00 AM	R37011
Methylene Chloride	ND	0.94	15		µg/L	5	9/6/2016 11:30:00 AM	R37011
n-Butylbenzene	1.0	0.80	15	J	µg/L	5	9/6/2016 11:30:00 AM	R37011
n-Propylbenzene	4.0	0.66	5.0	J	µg/L	5	9/6/2016 11:30:00 AM	R37011
sec-Butylbenzene	ND	0.62	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Styrene	ND	0.55	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	9/6/2016 11:30:00 AM	R37011
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	9/6/2016 11:30:00 AM	R37011
Vinyl chloride	ND	0.98	5.0		µg/L	5	9/6/2016 11:30:00 AM	R37011
Xylenes, Total	9.2	1.8	7.5		µg/L	5	9/6/2016 11:30:00 AM	R37011
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	5	9/6/2016 11:30:00 AM	R37011
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	5	9/6/2016 11:30:00 AM	R37011

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OAPIS-1
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 12:20:00 PM
Lab ID: 1609078-005
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Surr: Dibromofluoromethane	106	0	70-130		%Rec	5	9/6/2016 11:30:00 AM	R37011
Surr: Toluene-d8	100	0	70-130		%Rec	5	9/6/2016 11:30:00 AM	R37011

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2016 Annual/Quarterly
Collection Date:
Lab ID: 1609078-006
Matrix: TRIP BLANK
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Toluene	ND	0.12	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Naphthalene	ND	0.093	2.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Acetone	ND	4.9	10		µg/L	1	9/3/2016 12:41:00 AM	A36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Bromoform	ND	0.10	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
2-Butanone	ND	0.74	10		µg/L	1	9/3/2016 12:41:00 AM	A36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/3/2016 12:41:00 AM	A36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Chloroform	ND	0.089	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/3/2016 12:41:00 AM	A36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2016 Annual/Quarterly
Collection Date:
Lab ID: 1609078-006
Matrix: TRIP BLANK
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
2-Hexanone	ND	0.84	10		µg/L	1	9/3/2016 12:41:00 AM	A36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/3/2016 12:41:00 AM	A36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Styrene	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/3/2016 12:41:00 AM	A36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/3/2016 12:41:00 AM	A36950
Surr: 1,2-Dichloroethane-d4	105	0	70-130		%Rec	1	9/3/2016 12:41:00 AM	A36950
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	9/3/2016 12:41:00 AM	A36950
Surr: Dibromofluoromethane	102	0	70-130		%Rec	1	9/3/2016 12:41:00 AM	A36950
Surr: Toluene-d8	102	0	70-130		%Rec	1	9/3/2016 12:41:00 AM	A36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 7:00:00 AM
Lab ID: 1609078-007 **Matrix:** AQUEOUS **Received Date:** 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Toluene	ND	0.12	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Naphthalene	ND	0.093	2.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Acetone	ND	4.9	10		µg/L	1	9/3/2016 1:04:00 AM	A36950
Bromobenzene	ND	0.098	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Bromoform	ND	0.10	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Bromomethane	ND	0.78	3.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
2-Butanone	ND	0.74	10		µg/L	1	9/3/2016 1:04:00 AM	A36950
Carbon disulfide	ND	0.60	10		µg/L	1	9/3/2016 1:04:00 AM	A36950
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Chloroethane	ND	0.19	2.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Chloroform	ND	0.089	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Chloromethane	ND	0.21	3.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Dibromomethane	ND	0.12	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/3/2016 1:04:00 AM	A36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 Annual/Quarterly
Collection Date: 9/1/2016 7:00:00 AM
Lab ID: 1609078-007
Matrix: AQUEOUS
Received Date: 9/1/2016 4:30:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
2-Hexanone	ND	0.84	10		µg/L	1	9/3/2016 1:04:00 AM	A36950
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/3/2016 1:04:00 AM	A36950
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Styrene	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/3/2016 1:04:00 AM	A36950
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/3/2016 1:04:00 AM	A36950
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	1	9/3/2016 1:04:00 AM	A36950
Surr: 4-Bromofluorobenzene	100	0	70-130		%Rec	1	9/3/2016 1:04:00 AM	A36950
Surr: Dibromofluoromethane	101	0	70-130		%Rec	1	9/3/2016 1:04:00 AM	A36950
Surr: Toluene-d8	101	0	70-130		%Rec	1	9/3/2016 1:04:00 AM	A36950

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 160908028
Project Name: 1609078

Analytical Results Report

Sample Number	160908028-001	**Sampling Date**	9/1/2016	**Date/Time Received**	9/8/2016	12:30 PM
Client Sample ID	1609078-005G / OAPIS-1	**Sampling Time**	12:20 PM			
Matrix	Water					
Comments						

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.106	mg/L	0.01	9/14/2016	MER	EPA 335.4	

Authorized Signature

Todd Taruscio, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013;NV:ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 160908028
Project Name: 1609078

Analytical Results Report

Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.513	mg/L	0.5	102.6	90-110	9/14/2016	9/14/2016

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
160908027-002	Cyanide	ND	0.509	mg/L	0.5	101.8	90-110	9/14/2016	9/14/2016

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	0.494	mg/L	0.5	98.8	3.0	0-20	9/14/2016	9/14/2016

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/L	0.01	9/14/2016	9/14/2016

AR	Acceptable Range
ND	Not Detected
PQL	Practical Quantitation Limit
RPD	Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013;NV:ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609078**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A37246**	RunNo: **37246**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1155988** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A37246**	RunNo: **37246**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1155989** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.7	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Calcium	50	1.0	50.00	0	99.1	85	115			
Chromium	0.49	0.0060	0.5000	0	98.5	85	115			
Copper	0.49	0.0060	0.5000	0	97.6	85	115			
Iron	0.49	0.020	0.5000	0	97.3	85	115			
Magnesium	49	1.0	50.00	0	98.8	85	115			
Manganese	0.48	0.0020	0.5000	0	96.9	85	115			
Potassium	48	1.0	50.00	0	96.5	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			
Sodium	49	1.0	50.00	0	97.0	85	115			
Zinc	0.50	0.010	0.5000	0	99.2	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A37246**	RunNo: **37246**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1155990** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0017	0.0020	0.002000	0	84.5	50	150			J
Cadmium	0.0019	0.0020	0.002000	0	94.5	50	150			J
Calcium	0.53	1.0	0.5000	0	105	50	150			J
Chromium	0.0058	0.0060	0.006000	0	97.5	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609078**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A37246**	RunNo: **37246**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1155990** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0043	0.0060	0.006000	0	71.0	50	150			J
Iron	0.022	0.020	0.02000	0	110	50	150			
Magnesium	0.52	1.0	0.5000	0	105	50	150			J
Manganese	0.0021	0.0020	0.002000	0	105	50	150			
Potassium	0.57	1.0	0.5000	0	115	50	150			J
Silver	0.0055	0.0050	0.005000	0	110	50	150			
Sodium	0.48	1.0	0.5000	0	95.9	50	150			J
Zinc	0.0057	0.010	0.005000	0	114	50	150			J

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B37295**	RunNo: **37295**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1158025** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Sodium	ND	1.0								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B37295**	RunNo: **37295**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1158026** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.50	0.020	0.5000	0	99.5	85	115			
Sodium	50	1.0	50.00	0	101	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37295**	RunNo: **37295**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1158027** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.025	0.020	0.02000	0	124	50	150			
Sodium	0.55	1.0	0.5000	0	111	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609078**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **MB-27573**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **27573**	RunNo: **37369**
Prep Date: **9/19/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161340** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-27573**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **27573**	RunNo: **37369**
Prep Date: **9/19/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161341** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.6	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.9	85	115			
Chromium	0.48	0.0060	0.5000	0	95.8	85	115			
Copper	0.48	0.0060	0.5000	0	95.1	85	115			
Iron	0.48	0.020	0.5000	0	95.3	85	115			
Manganese	0.47	0.0020	0.5000	0	94.6	85	115			
Silver	0.091	0.0050	0.1000	0	91.1	85	115			
Zinc	0.47	0.010	0.5000	0	94.7	85	115			

Sample ID **LLLCS-27573**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **27573**	RunNo: **37369**
Prep Date: **9/19/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161342** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0022	0.0020	0.002000	0	110	50	150			
Cadmium	0.0020	0.0020	0.002000	0	99.5	50	150			J
Chromium	0.0064	0.0060	0.006000	0	106	50	150			
Copper	0.0057	0.0060	0.006000	0	94.8	50	150			J
Manganese	0.0021	0.0020	0.002000	0	106	50	150			
Silver	0.0049	0.0050	0.005000	0	98.6	50	150			J
Zinc	0.0059	0.010	0.005000	0	117	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609078**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	**LLLCS-27573**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID:	**27573**		RunNo:	**37369**					
Prep Date:	**9/19/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161352**	Units:	**mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron		0.022	0.020	0.02000	0	111	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609078**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **D37166**	RunNo: **37166**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152869** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.5	85	115			
Lead	0.012	0.00050	0.01250	0	95.4	85	115			

Sample ID **LCSLL**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **D37166**	RunNo: **37166**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152872** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	104	50	150			
Lead	0.00048	0.00050	0.0005000	0	95.9	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **D37166**	RunNo: **37166**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152875** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								

Sample ID **LCSLL**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **D37239**	RunNo: **37239**
Prep Date:	Analysis Date: **9/15/2016**	SeqNo: **1155796** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	111	50	150			
Lead	0.00053	0.00050	0.0005000	0	107	50	150			
Selenium	0.0011	0.0010	0.001000	0	106	50	150			
Uranium	0.00050	0.00050	0.0005000	0	100	50	150			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **D37239**	RunNo: **37239**
Prep Date:	Analysis Date: **9/15/2016**	SeqNo: **1155798** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609078**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **D37239**	RunNo: **37239**
Prep Date:	Analysis Date: **9/15/2016**	SeqNo: **1155805** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Lead	0.012	0.00050	0.01250	0	97.8	85	115			
Selenium	0.024	0.0010	0.02500	0	96.6	85	115			
Uranium	0.012	0.00050	0.01250	0	97.1	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B37281**	RunNo: **37281**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1157676** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.0	85	115			
Selenium	0.023	0.0010	0.02500	0	93.7	85	115			

Sample ID **LCSLL**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37281**	RunNo: **37281**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1157677** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00093	0.0010	0.001000	0	93.5	50	150			J
Selenium	0.00096	0.0010	0.001000	0	96.3	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B37281**	RunNo: **37281**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1157678** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609078**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	**MSLCS-27450**	SampType:	**LCS**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**LCSW**	Batch ID:	**27450**		RunNo:	**37201**				
Prep Date:	**9/12/2016**	Analysis Date:	**9/14/2016**		SeqNo:	**1154603**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.6	85	115			
Lead	0.012	0.00050	0.01250	0	96.3	85	115			
Selenium	0.023	0.0010	0.02500	0	92.8	85	115			
Uranium	0.012	0.00050	0.01250	0	95.3	85	115			

Sample ID	**MSLLLCS-27450**	SampType:	**LCSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**BatchQC**	Batch ID:	**27450**		RunNo:	**37201**				
Prep Date:	**9/12/2016**	Analysis Date:	**9/14/2016**		SeqNo:	**1154608**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0012	0.0010	0.001000	0	121	50	150			
Lead	0.00051	0.00050	0.0005000	0	103	50	150			
Selenium	0.00094	0.0010	0.001000	0	93.9	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	97.4	50	150			J

Sample ID	**MB-27450**	SampType:	**MBLK**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**PBW**	Batch ID:	**27450**		RunNo:	**37201**				
Prep Date:	**9/12/2016**	Analysis Date:	**9/14/2016**		SeqNo:	**1154613**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00024	0.0010								J
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609078**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R36994**	RunNo: **36994**
Prep Date:	Analysis Date: **9/2/2016**	SeqNo: **1146375** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R36994**	RunNo: **36994**
Prep Date:	Analysis Date: **9/2/2016**	SeqNo: **1146376** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.5	0.50	5.000	0	90.7	90	110			
Nitrogen, Nitrite (As N)	0.93	0.10	1.000	0	93.0	90	110			
Bromide	2.3	0.10	2.500	0	92.7	90	110			
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	95.3	90	110			
Sulfate	9.4	0.50	10.00	0	93.7	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R37182**	RunNo: **37182**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1153582** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R37182**	RunNo: **37182**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1153583** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	103	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.8	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A37205**	RunNo: **37205**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154645** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609078**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A37205**	RunNo: **37205**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154645** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A37205**	RunNo: **37205**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154646** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Chloride	4.8	0.50	5.000	0	95.3	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	100	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609078**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **LCS-27339**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **27339**	RunNo: **37010**
Prep Date: **9/6/2016**	Analysis Date: **9/6/2016**	SeqNo: **1146966** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.3	1.0	5.000	0	105	62.8	153			
Surr: DNOP	0.62		0.5000		124	77.1	144			

Sample ID **MB-27339**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **27339**	RunNo: **37010**
Prep Date: **9/6/2016**	Analysis Date: **9/6/2016**	SeqNo: **1146967** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		122	77.1	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609078**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R37021**	RunNo: **37021**
Prep Date:	Analysis Date: **9/6/2016**	SeqNo: **1147571** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	101	80	120			
Surr: BFB	18		20.00		88.0	66.4	120			

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **R37021**	RunNo: **37021**
Prep Date:	Analysis Date: **9/6/2016**	SeqNo: **1147572** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	16		20.00		82.2	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R37047**	RunNo: **37047**
Prep Date:	Analysis Date: **9/7/2016**	SeqNo: **1148171** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.52	0.050	0.5000	0	105	80	120			
Surr: BFB	19		20.00		94.9	66.4	120			

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **R37047**	RunNo: **37047**
Prep Date:	Analysis Date: **9/7/2016**	SeqNo: **1148172** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	17		20.00		85.6	66.4	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609078**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **A36950**	RunNo: **36950**
Prep Date:	Analysis Date: **9/2/2016**	SeqNo: **1146453** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.8	70	130			
Toluene	21	1.0	20.00	0	103	70	130			
Chlorobenzene	21	1.0	20.00	0	105	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	95.5	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	93.9	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID **rb1**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **A36950**	RunNo: **36950**
Prep Date:	Analysis Date: **9/2/2016**	SeqNo: **1146454** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609078**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **rb1**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **A36950**	RunNo: **36950**
Prep Date:	Analysis Date: **9/2/2016**	SeqNo: **1146454** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609078**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **rb1**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **A36950**	RunNo: **36950**
Prep Date:	Analysis Date: **9/2/2016**	SeqNo: **1146454** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID **100NG LCS**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R37011**	RunNo: **37011**
Prep Date:	Analysis Date: **9/6/2016**	SeqNo: **1146952** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.1	70	130			
Toluene	21	1.0	20.00	0	103	70	130			
Chlorobenzene	21	1.0	20.00	0	105	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	100	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	96.2	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.9		10.00		98.8	70	130			
Surr: Toluene-d8	10		10.00		99.8	70	130			

Sample ID **VSB FRIDGE**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37011**	RunNo: **37011**
Prep Date:	Analysis Date: **9/6/2016**	SeqNo: **1146953** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	0.19	4.0								J
Acetone	ND	10								
Bromobenzene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609078**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **VSB FRIDGE**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37011**	RunNo: **37011**
Prep Date:	Analysis Date: **9/6/2016**	SeqNo: **1146953** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	1.1	10								J
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609078**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **VSB FRIDGE**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37011**	RunNo: **37011**
Prep Date:	Analysis Date: **9/6/2016**	SeqNo: **1146953** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609078**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **mb-27341**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **27341**	RunNo: **37106**
Prep Date: **9/6/2016**	Analysis Date: **9/10/2016**	SeqNo: **1150325** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	9.0	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	3.8	10								J
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	4.7	10								J
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609078**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **mb-27341**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **27341**	RunNo: **37106**
Prep Date: **9/6/2016**	Analysis Date: **9/10/2016**	SeqNo: **1150325** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	99		200.0		49.5	15	123			
Surr: Phenol-d5	98		200.0		49.2	4.13	124			
Surr: 2,4,6-Tribromophenol	120		200.0		60.0	18.4	134			
Surr: Nitrobenzene-d5	74		100.0		73.8	28.8	134			
Surr: 2-Fluorobiphenyl	71		100.0		71.3	35.9	125			
Surr: 4-Terphenyl-d14	41		100.0		41.5	15	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609078**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **lcs-27341**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **27341**	RunNo: **37106**
Prep Date: **9/6/2016**	Analysis Date: **9/10/2016**	SeqNo: **1150326** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	73	10	100.0	0	73.1	35	113			
4-Chloro-3-methylphenol	100	10	200.0	0	51.3	40.7	114			
2-Chlorophenol	100	10	200.0	0	51.0	37.6	113			
1,4-Dichlorobenzene	49	10	100.0	0	48.6	37.7	106			
2,4-Dinitrotoluene	80	10	100.0	0	79.5	37	91			
N-Nitrosodi-n-propylamine	88	10	100.0	0	88.2	45.4	105			
4-Nitrophenol	67	10	200.0	0	33.6	33.4	104			
Pentachlorophenol	98	20	200.0	0	49.0	29.5	94.9			
Phenol	76	10	200.0	0	38.1	30.6	119			
Pyrene	84	10	100.0	0	84.0	26.2	120			
1,2,4-Trichlorobenzene	56	10	100.0	0	56.2	39.9	125			
Surr: 2-Fluorophenol	83		200.0		41.5	15	123			
Surr: Phenol-d5	86		200.0		42.8	4.13	124			
Surr: 2,4,6-Tribromophenol	120		200.0		59.1	18.4	134			
Surr: Nitrobenzene-d5	81		100.0		80.8	28.8	134			
Surr: 2-Fluorobiphenyl	73		100.0		73.5	35.9	125			
Surr: 4-Terphenyl-d14	52		100.0		52.3	15	146			

Sample ID **lcsd-27341**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **27341**	RunNo: **37109**
Prep Date: **9/6/2016**	Analysis Date: **9/10/2016**	SeqNo: **1150577** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	97	10	100.0	0	97.4	35	113	28.5	46.7	
4-Chloro-3-methylphenol	150	10	200.0	0	74.0	40.7	114	36.2	29.4	R
2-Chlorophenol	130	10	200.0	0	64.6	37.6	113	23.5	38.7	
1,4-Dichlorobenzene	58	10	100.0	0	58.4	37.7	106	18.2	25.3	
2,4-Dinitrotoluene	100	10	100.0	0	102	37	91	25.1	34.7	S
N-Nitrosodi-n-propylamine	100	10	100.0	0	101	45.4	105	13.7	30.2	
4-Nitrophenol	110	10	200.0	0	54.0	33.4	104	46.6	42.2	R
Pentachlorophenol	120	20	200.0	0	59.3	29.5	94.9	18.9	35.5	
Phenol	100	10	200.0	0	52.1	30.6	119	31.1	25.5	R
Pyrene	93	10	100.0	0	93.0	26.2	120	10.2	27.1	
1,2,4-Trichlorobenzene	71	10	100.0	0	71.1	39.9	125	23.4	43.3	
Surr: 2-Fluorophenol	110		200.0		54.5	15	123	0	0	
Surr: Phenol-d5	110		200.0		55.7	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	150		200.0		74.5	18.4	134	0	0	
Surr: Nitrobenzene-d5	99		100.0		98.7	28.8	134	0	0	
Surr: 2-Fluorobiphenyl	86		100.0		86.5	35.9	125	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609078**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	**lcsd-27341**	SampType:	**LCSD**		TestCode:	**EPA Method 8270C: Semivolatiles**					
Client ID:	**LCSS02**	Batch ID:	**27341**		RunNo:	**37109**					
Prep Date:	**9/6/2016**	Analysis Date:	**9/10/2016**		SeqNo:	**1150577**	Units:	**µg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14		60		100.0		60.3	15	146	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1609078** RcptNo: **1**

Received by/date: AT 09/01/16

Logged By: **Lindsay Mangin** 9/1/2016 4:30:00 PM

Completed By: **Lindsay Mangin** 9/2/2016 9:38:29 AM

Reviewed By: AG 09/02/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 15 (<2 or >12 unless noted)

Adjusted? Yes

Checked by: aJ

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks: For metals analysis: added 0.4mL HNO_3 to -002E
1mL HNO_3 to -005D
for acceptable pH.
9/2 @ 1200
aJ

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.9	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

92 GIANT CROSSING ROAD, GALLUP, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:

X Standard ☐ Rush_____

Project Name:

2016 ANNUAL/QUARTERLY

OAPIS-1 / NAPIS WELLS

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON

On Ice: X Yes ☐ No

Sample Temperature: 3.9

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609078	Analysis Request: 8260+MTBE	8015D EXTENDED	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	Major Cations/Anions	Cyanide	8270 + Phenols									Air Bubbles (Y or N)
9/1/2016	1046	AQUEOUS	NAPIS-1			-001	X	X	X	X	X											
9/1/2016	1105	AQUEOUS	NAPIS -2			-002	X	X	X	X	X											
9/1/2016	1120	AQUEOUS	KA-3			-003	X	X	X	X	X											
9/1/2016	1130	AQUEOUS	NAPIS-3			-004	X	X	X	X	X											
9/1/2016	1220	AQUEOUS	OAPIS-1			-005	X	X	X	X	X	X	X									
~~9/1/2016~~		AQUEOUS	TRIP BLANK			-006	X															
9/1/2016	700	AQUEOUS	FIELD BLANK			-007	X															

Date:	Time:	Relinquished by:	Received by:	Date	Time
9/1/2016	1430			9/1/16	2:35
9/1/16	1630		09/01/16	1630	

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 18, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 Annual OrderNo.: 1609449

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 9/8/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1609449**
Date Reported: **10/18/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-1
Project: 2016 Annual
Collection Date: 9/6/2016 1:00:00 PM
Lab ID: 1609449-001
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	9/13/2016 5:08:32 PM	27428
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/12/2016 8:08:13 PM	27430
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 8:08:13 PM	27430
Surr: DNOP	112	0	77.1-144		%Rec	1	9/12/2016 8:08:13 PM	27430
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.25	0.50		mg/L	5	9/10/2016 3:42:17 AM	R37119
Chloride	83	0.25	2.5		mg/L	5	9/10/2016 3:42:17 AM	R37119
Bromide	0.27	0.22	0.50	J	mg/L	5	9/10/2016 3:42:17 AM	R37119
Phosphorus, Orthophosphate (As P)	1.1	0.38	2.5	JH	mg/L	5	9/10/2016 3:42:17 AM	R37119
Sulfate	180	0.71	2.5		mg/L	5	9/10/2016 3:42:17 AM	R37119
Nitrate+Nitrite as N	0.72	0.46	1.0	J	mg/L	5	9/10/2016 4:31:56 AM	R37119
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.039	0.0013	0.0020		mg/L	1	9/16/2016 2:29:40 PM	B37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 2:29:40 PM	B37246
Calcium	3.1	0.50	1.0		mg/L	1	9/16/2016 2:29:40 PM	B37246
Chromium	0.0023	0.0018	0.0060	J	mg/L	1	9/16/2016 2:29:40 PM	B37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 2:29:40 PM	B37246
Iron	0.31	0.020	0.020	*	mg/L	1	9/16/2016 2:29:40 PM	B37246
Magnesium	ND	0.50	1.0		mg/L	1	9/16/2016 2:29:40 PM	B37246
Manganese	0.026	0.00032	0.0020		mg/L	1	9/16/2016 2:29:40 PM	B37246
Potassium	0.81	0.50	1.0	J	mg/L	1	9/16/2016 2:29:40 PM	B37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 2:29:40 PM	B37246
Sodium	310	2.5	5.0		mg/L	5	9/16/2016 2:31:41 PM	B37246
Zinc	0.096	0.0028	0.010		mg/L	1	9/16/2016 2:29:40 PM	B37246
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.17	0.00079	0.0020		mg/L	1	9/21/2016 2:53:03 PM	27574
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 2:53:03 PM	27574
Chromium	0.043	0.0027	0.0060		mg/L	1	9/21/2016 2:53:03 PM	27574
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 2:53:03 PM	27574
Iron	9.2	0.20	0.20	*	mg/L	10	10/3/2016 1:59:15 PM	27574
Manganese	0.35	0.00027	0.0020	*	mg/L	1	9/21/2016 2:53:03 PM	27574
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 2:53:03 PM	27574
Zinc	0.069	0.0027	0.010		mg/L	1	9/21/2016 2:53:03 PM	27574
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0015	0.00069	0.0050	J	mg/L	5	9/21/2016 8:04:48 PM	A37386
Lead	0.0014	0.00017	0.00050		mg/L	1	9/20/2016 2:48:38 PM	B37327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-1
Project: 2016 Annual
Collection Date: 9/6/2016 1:00:00 PM
Lab ID: 1609449-001
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Selenium	0.0041	0.00021	0.0010		mg/L	1	9/20/2016 2:48:38 PM	B37327
Uranium	0.040	0.00026	0.0025	*	mg/L	5	9/21/2016 8:04:48 PM	A37386
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0031	0.00021	0.0010		mg/L	1	9/20/2016 6:26:06 PM	27574
Lead	0.015	0.00041	0.0025		mg/L	5	9/21/2016 4:39:56 PM	27574
Selenium	0.0041	0.00094	0.0050	J	mg/L	5	9/21/2016 4:39:56 PM	27574
Uranium	0.045	0.00087	0.0025	*	mg/L	5	9/21/2016 4:39:56 PM	27574
EPA METHOD 245.1: MERCURY							Analyst: **MED**	
Mercury	0.000087	0.000053	0.00020	J	mg/L	1	9/15/2016 1:21:27 PM	27494
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Toluene	ND	0.12	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Methyl tert-butyl ether (MTBE)	0.88	0.21	1.0	J	µg/L	1	9/14/2016 1:52:46 PM	R37199
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Naphthalene	ND	0.093	2.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Acetone	ND	4.9	10		µg/L	1	9/14/2016 1:52:46 PM	R37199
Bromobenzene	ND	0.098	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Bromoform	ND	0.10	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Bromomethane	ND	0.78	3.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
2-Butanone	ND	0.74	10		µg/L	1	9/14/2016 1:52:46 PM	R37199
Carbon disulfide	ND	0.60	10		µg/L	1	9/14/2016 1:52:46 PM	R37199
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Chloroethane	ND	0.19	2.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Chloroform	ND	0.089	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Chloromethane	ND	0.21	3.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/14/2016 1:52:46 PM	R37199

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-1
Project: 2016 Annual
Collection Date: 9/6/2016 1:00:00 PM
Lab ID: 1609449-001
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Dibromomethane	ND	0.12	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
2-Hexanone	ND	0.84	10		µg/L	1	9/14/2016 1:52:46 PM	R37199
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/14/2016 1:52:46 PM	R37199
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Styrene	ND	0.11	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/14/2016 1:52:46 PM	R37199
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/14/2016 1:52:46 PM	R37199
Surr: 1,2-Dichloroethane-d4	99.9	0	70-130		%Rec	1	9/14/2016 1:52:46 PM	R37199
Surr: 4-Bromofluorobenzene	94.6	0	70-130		%Rec	1	9/14/2016 1:52:46 PM	R37199

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-1
Project: 2016 Annual
Collection Date: 9/6/2016 1:00:00 PM
Lab ID: 1609449-001
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: Dibromofluoromethane	107	0	70-130		%Rec	1	9/14/2016 1:52:46 PM	R37199
Surr: Toluene-d8	92.7	0	70-130		%Rec	1	9/14/2016 1:52:46 PM	R37199
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/14/2016 1:52:46 PM	G37199
Surr: BFB	91.1	0	70-130		%Rec	1	9/14/2016 1:52:46 PM	G37199

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 2016 Annual
Collection Date: 9/6/2016 11:40:00 AM
Lab ID: 1609449-002
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	9/13/2016 5:54:21 PM	27428
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/12/2016 9:03:43 PM	27430
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 9:03:43 PM	27430
Surr: DNOP	108	0	77.1-144		%Rec	1	9/12/2016 9:03:43 PM	27430
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.25	0.50		mg/L	5	9/10/2016 4:07:06 AM	R37119
Chloride	1100	5.1	50		mg/L	100	9/15/2016 6:03:39 AM	R37206
Bromide	1.1	0.22	0.50		mg/L	5	9/10/2016 4:07:06 AM	R37119
Phosphorus, Orthophosphate (As P)	1.4	0.38	2.5	JH	mg/L	5	9/10/2016 4:07:06 AM	R37119
Sulfate	230	0.71	2.5		mg/L	5	9/10/2016 4:07:06 AM	R37119
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/10/2016 4:44:20 AM	R37119
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.064	0.0013	0.0020		mg/L	1	9/16/2016 2:33:30 PM	B37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 2:33:30 PM	B37246
Calcium	110	2.5	5.0		mg/L	5	9/16/2016 2:35:28 PM	B37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 2:33:30 PM	B37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 2:33:30 PM	B37246
Iron	ND	0.020	0.020		mg/L	1	9/16/2016 2:33:30 PM	B37246
Magnesium	20	0.50	1.0		mg/L	1	9/16/2016 2:33:30 PM	B37246
Manganese	0.12	0.00032	0.0020	*	mg/L	1	9/16/2016 2:33:30 PM	B37246
Potassium	1.8	0.50	1.0		mg/L	1	9/16/2016 2:33:30 PM	B37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 2:33:30 PM	B37246
Sodium	790	5.0	10		mg/L	10	9/19/2016 4:14:29 PM	B37295
Zinc	0.062	0.0028	0.010		mg/L	1	9/16/2016 2:33:30 PM	B37246
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.061	0.00079	0.0020		mg/L	1	9/21/2016 2:54:55 PM	27574
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 2:54:55 PM	27574
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 2:54:55 PM	27574
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 2:54:55 PM	27574
Iron	ND	0.020	0.020		mg/L	1	9/21/2016 2:54:55 PM	27574
Manganese	0.11	0.00027	0.0020	*	mg/L	1	9/21/2016 2:54:55 PM	27574
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 2:54:55 PM	27574
Zinc	ND	0.0027	0.010		mg/L	1	9/21/2016 2:54:55 PM	27574
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0027	0.00069	0.0050	J	mg/L	5	9/21/2016 8:07:51 PM	A37386
Lead	0.00020	0.00017	0.00050	J	mg/L	1	9/20/2016 2:51:41 PM	B37327

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 2016 Annual
Collection Date: 9/6/2016 11:40:00 AM
Lab ID: 1609449-002
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Selenium	0.015	0.0011	0.0050		mg/L	5	9/21/2016 8:07:51 PM	A37386
Uranium	0.056	0.00026	0.0025	*	mg/L	5	9/21/2016 8:07:51 PM	A37386
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0035	0.0011	0.0050	J	mg/L	5	9/21/2016 4:48:58 PM	27574
Lead	0.00019	0.000081	0.00050	J	mg/L	1	9/20/2016 6:35:08 PM	27574
Selenium	0.013	0.00019	0.0010		mg/L	1	9/20/2016 6:35:08 PM	27574
Uranium	0.056	0.00087	0.0025	*	mg/L	5	9/21/2016 4:48:58 PM	27574
EPA METHOD 245.1: MERCURY							Analyst: **MED**	
Mercury	0.000058	0.000053	0.00020	J	mg/L	1	9/15/2016 1:50:18 PM	27494
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Toluene	ND	0.12	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Methyl tert-butyl ether (MTBE)	35	0.21	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
1,2-Dichloroethane (EDC)	0.73	0.12	1.0	J	µg/L	1	9/14/2016 2:21:39 PM	R37199
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Naphthalene	ND	0.093	2.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Acetone	ND	4.9	10		µg/L	1	9/14/2016 2:21:39 PM	R37199
Bromobenzene	ND	0.098	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Bromoform	ND	0.10	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Bromomethane	ND	0.78	3.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
2-Butanone	ND	0.74	10		µg/L	1	9/14/2016 2:21:39 PM	R37199
Carbon disulfide	ND	0.60	10		µg/L	1	9/14/2016 2:21:39 PM	R37199
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Chloroethane	ND	0.19	2.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Chloroform	ND	0.089	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Chloromethane	ND	0.21	3.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
cis-1,2-DCE	0.29	0.12	1.0	J	µg/L	1	9/14/2016 2:21:39 PM	R37199
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/14/2016 2:21:39 PM	R37199

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 2016 Annual
Collection Date: 9/6/2016 11:40:00 AM
Lab ID: 1609449-002
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Dibromomethane	ND	0.12	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
1,1-Dichloroethane	0.93	0.11	1.0	J	µg/L	1	9/14/2016 2:21:39 PM	R37199
1,1-Dichloroethene	0.76	0.11	1.0	J	µg/L	1	9/14/2016 2:21:39 PM	R37199
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
2-Hexanone	ND	0.84	10		µg/L	1	9/14/2016 2:21:39 PM	R37199
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/14/2016 2:21:39 PM	R37199
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Styrene	ND	0.11	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/14/2016 2:21:39 PM	R37199
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/14/2016 2:21:39 PM	R37199
Surr: 1,2-Dichloroethane-d4	105	0	70-130		%Rec	1	9/14/2016 2:21:39 PM	R37199
Surr: 4-Bromofluorobenzene	94.1	0	70-130		%Rec	1	9/14/2016 2:21:39 PM	R37199

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 2016 Annual
Collection Date: 9/6/2016 11:40:00 AM
Lab ID: 1609449-002
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: Dibromofluoromethane	109	0	70-130		%Rec	1	9/14/2016 2:21:39 PM	R37199
Surr: Toluene-d8	92.5	0	70-130		%Rec	1	9/14/2016 2:21:39 PM	R37199
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	0.040	0.015	0.050	J	mg/L	1	9/14/2016 2:21:39 PM	G37199
Surr: BFB	92.4	0	70-130		%Rec	1	9/14/2016 2:21:39 PM	G37199

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 Annual
Collection Date:
Lab ID: 1609449-004
Matrix: TRIP BLANK
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Toluene	ND	0.12	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Naphthalene	ND	0.093	2.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Acetone	ND	4.9	10		µg/L	1	9/17/2016 4:50:28 AM	W37277
Bromobenzene	ND	0.098	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Bromoform	ND	0.10	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Bromomethane	ND	0.78	3.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
2-Butanone	ND	0.74	10		µg/L	1	9/17/2016 4:50:28 AM	W37277
Carbon disulfide	ND	0.60	10		µg/L	1	9/17/2016 4:50:28 AM	W37277
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Chloroethane	ND	0.19	2.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Chloroform	ND	0.089	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Chloromethane	ND	0.21	3.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Dibromomethane	ND	0.12	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/17/2016 4:50:28 AM	W37277

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 Annual
Collection Date:
Lab ID: 1609449-004
Matrix: TRIP BLANK
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
2-Hexanone	ND	0.84	10		µg/L	1	9/17/2016 4:50:28 AM	W37277
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/17/2016 4:50:28 AM	W37277
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Styrene	ND	0.11	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/17/2016 4:50:28 AM	W37277
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/17/2016 4:50:28 AM	W37277
Surr: 1,2-Dichloroethane-d4	95.8	0	70-130		%Rec	1	9/17/2016 4:50:28 AM	W37277
Surr: 4-Bromofluorobenzene	93.3	0	70-130		%Rec	1	9/17/2016 4:50:28 AM	W37277
Surr: Dibromofluoromethane	109	0	70-130		%Rec	1	9/17/2016 4:50:28 AM	W37277
Surr: Toluene-d8	90.5	0	70-130		%Rec	1	9/17/2016 4:50:28 AM	W37277

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609449**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B37246**	RunNo: **37246**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1155991** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B37246**	RunNo: **37246**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1155992** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.2	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Calcium	49	1.0	50.00	0	98.3	85	115			
Chromium	0.49	0.0060	0.5000	0	98.1	85	115			
Copper	0.48	0.0060	0.5000	0	96.0	85	115			
Iron	0.48	0.020	0.5000	0	96.6	85	115			
Magnesium	49	1.0	50.00	0	97.9	85	115			
Manganese	0.48	0.0020	0.5000	0	96.0	85	115			
Potassium	48	1.0	50.00	0	95.7	85	115			
Silver	0.10	0.0050	0.1000	0	99.9	85	115			
Sodium	48	1.0	50.00	0	96.0	85	115			
Zinc	0.50	0.010	0.5000	0	99.0	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37246**	RunNo: **37246**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1155993** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0022	0.0020	0.002000	0	108	50	150			
Cadmium	0.0017	0.0020	0.002000	0	87.0	50	150			J
Calcium	0.56	1.0	0.5000	0	111	50	150			J
Chromium	0.0056	0.0060	0.006000	0	94.0	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609449**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37246**	RunNo: **37246**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1155993** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0043	0.0060	0.006000	0	71.8	50	150			J
Iron	0.023	0.020	0.02000	0	116	50	150			
Magnesium	0.53	1.0	0.5000	0	107	50	150			J
Manganese	0.0022	0.0020	0.002000	0	112	50	150			
Potassium	0.59	1.0	0.5000	0	119	50	150			J
Silver	0.0053	0.0050	0.005000	0	106	50	150			
Sodium	0.48	1.0	0.5000	0	95.6	50	150			J
Zinc	0.0067	0.010	0.005000	0	135	50	150			J

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B37295**	RunNo: **37295**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1158025** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B37295**	RunNo: **37295**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1158026** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	50	1.0	50.00	0	101	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37295**	RunNo: **37295**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1158027** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	0.55	1.0	0.5000	0	111	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609449**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **MB-27574**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **27574**	RunNo: **37369**
Prep Date: **9/19/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161346** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-27574**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **27574**	RunNo: **37369**
Prep Date: **9/19/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161347** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.7	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	97.5	85	115			
Copper	0.48	0.0060	0.5000	0	95.7	85	115			
Iron	0.48	0.020	0.5000	0	96.5	85	115			
Manganese	0.48	0.0020	0.5000	0	95.9	85	115			
Silver	0.091	0.0050	0.1000	0	91.1	85	115			
Zinc	0.48	0.010	0.5000	0	95.5	85	115			

Sample ID **LLLCS-27574**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **27574**	RunNo: **37369**
Prep Date: **9/19/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161348** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	99.5	50	150			J
Cadmium	0.0015	0.0020	0.002000	0	76.5	50	150			J
Chromium	0.0069	0.0060	0.006000	0	115	50	150			
Copper	0.0060	0.0060	0.006000	0	100	50	150			
Iron	0.022	0.020	0.02000	0	112	50	150			
Manganese	0.0021	0.0020	0.002000	0	106	50	150			
Silver	0.0049	0.0050	0.005000	0	98.8	50	150			J
Zinc	0.0052	0.010	0.005000	0	104	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609449**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B37327**	RunNo: **37327**
Prep Date:	Analysis Date: **9/20/2016**	SeqNo: **1160758** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	96.8	85	115			
Selenium	0.024	0.0010	0.02500	0	95.3	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37327**	RunNo: **37327**
Prep Date:	Analysis Date: **9/20/2016**	SeqNo: **1160760** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00051	0.00050	0.0005000	0	101	50	150			
Selenium	0.00098	0.0010	0.001000	0	98.0	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B37327**	RunNo: **37327**
Prep Date:	Analysis Date: **9/20/2016**	SeqNo: **1160762** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Selenium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A37386**	RunNo: **37386**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1162017** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.3	85	115			
Selenium	0.024	0.0010	0.02500	0	97.7	85	115			
Uranium	0.012	0.00050	0.01250	0	98.7	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A37386**	RunNo: **37386**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1162020** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00098	0.0010	0.001000	0	98.4	50	150			J
Selenium	0.0010	0.0010	0.001000	0	102	50	150			
Uranium	0.00049	0.00050	0.0005000	0	97.6	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609449**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A37386**	RunNo: **37386**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1162022** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609449**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID	**1609449-001FMSDL**	SampType:	**MSDLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**OW-1**	Batch ID:	**27574**		RunNo:	**37355**				
Prep Date:	**9/19/2016**	Analysis Date:	**9/20/2016**		SeqNo:	**1160645**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0.003097	88.3	70	130	4.15	20	

Sample ID	**1609449-001FMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**OW-1**	Batch ID:	**27574**		RunNo:	**37355**				
Prep Date:	**9/19/2016**	Analysis Date:	**9/20/2016**		SeqNo:	**1160646**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.003097	84.2	70	130			

Sample ID	**MB-27574**	SampType:	**MBLK**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**PBW**	Batch ID:	**27574**		RunNo:	**37355**				
Prep Date:	**9/19/2016**	Analysis Date:	**9/20/2016**		SeqNo:	**1160661**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-27574**	SampType:	**LCS**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**LCSW**	Batch ID:	**27574**		RunNo:	**37355**				
Prep Date:	**9/19/2016**	Analysis Date:	**9/20/2016**		SeqNo:	**1160663**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.7	85	115			
Lead	0.012	0.00050	0.01250	0	97.8	85	115			
Selenium	0.024	0.0010	0.02500	0	96.0	85	115			
Uranium	0.012	0.00050	0.01250	0	99.9	85	115			

Sample ID	**MSLLLCS-27574**	SampType:	**LCSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**BatchQC**	Batch ID:	**27574**		RunNo:	**37355**				
Prep Date:	**9/19/2016**	Analysis Date:	**9/20/2016**		SeqNo:	**1160665**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00095	0.0010	0.001000	0	95.2	50	150			J
Lead	0.00049	0.00050	0.0005000	0	97.8	50	150			J
Selenium	0.00091	0.0010	0.001000	0	91.2	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	98.0	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609449**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID	**1609449-001FMSDL**	SampType:	**MSDLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**OW-1**	Batch ID:	**27574**		RunNo:	**37385**				
Prep Date:	**9/19/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161913**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.026	0.0025	0.01250	0.01475	88.5	70	130	5.49	20	
Selenium	0.028	0.0050	0.02500	0.004078	94.0	70	130	7.03	20	
Uranium	0.053	0.0025	0.01250	0.04474	66.8	70	130	7.02	20	S

Sample ID	**1609449-001FMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**OW-1**	Batch ID:	**27574**		RunNo:	**37385**				
Prep Date:	**9/19/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161914**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.024	0.0025	0.01250	0.01475	77.5	70	130			
Selenium	0.026	0.0050	0.02500	0.004078	86.5	70	130			
Uranium	0.049	0.0025	0.01250	0.04474	38.0	70	130			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609449**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID	**MB-27494**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**27494**	RunNo:	**37231**					
Prep Date:	**9/14/2016**	Analysis Date:	**9/15/2016**	SeqNo:	**1155489**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-27494**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**27494**	RunNo:	**37231**					
Prep Date:	**9/14/2016**	Analysis Date:	**9/15/2016**	SeqNo:	**1155490**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.4	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609449**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R37119**	RunNo: **37119**
Prep Date:	Analysis Date: **9/9/2016**	SeqNo: **1150886** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R37119**	RunNo: **37119**
Prep Date:	Analysis Date: **9/9/2016**	SeqNo: **1150887** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	107	90	110			
Chloride	5.0	0.50	5.000	0	100	90	110			
Bromide	2.5	0.10	2.500	0	101	90	110			
Phosphorus, Orthophosphate (As P	5.1	0.50	5.000	0	103	90	110			
Sulfate	10	0.50	10.00	0	101	90	110			
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R37206**	RunNo: **37206**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154772** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R37206**	RunNo: **37206**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154773** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.3	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609449**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID	**MB-27428**	SampType:	**MBLK**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**PBW**	Batch ID:	**27428**	RunNo:	**37191**					
Prep Date:	**9/12/2016**	Analysis Date:	**9/13/2016**	SeqNo:	**1154056**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID	**LCS-27428**	SampType:	**LCS**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**LCSW**	Batch ID:	**27428**	RunNo:	**37191**					
Prep Date:	**9/12/2016**	Analysis Date:	**9/13/2016**	SeqNo:	**1154057**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.11	0.010	0.1000	0	106	70	130			

Sample ID	**1609449-001CMS**	SampType:	**MS**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**OW-1**	Batch ID:	**27428**	RunNo:	**37191**					
Prep Date:	**9/12/2016**	Analysis Date:	**9/13/2016**	SeqNo:	**1154097**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.087	0.010	0.1000	0	86.5	57.8	147			

Sample ID	**1609449-001CMSD**	SampType:	**MSD**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**OW-1**	Batch ID:	**27428**	RunNo:	**37191**					
Prep Date:	**9/12/2016**	Analysis Date:	**9/13/2016**	SeqNo:	**1154098**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.090	0.010	0.1000	0	90.0	57.8	147	3.94	31.5	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609449**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **LCS-27430**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **27430**	RunNo: **37116**
Prep Date: **9/12/2016**	Analysis Date: **9/12/2016**	SeqNo: **1151166** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.0	1.0	5.000	0	121	63.2	155			
Surr: DNOP	0.55		0.5000		111	77.1	144			

Sample ID **MB-27430**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **27430**	RunNo: **37116**
Prep Date: **9/12/2016**	Analysis Date: **9/12/2016**	SeqNo: **1151167** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		108	77.1	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609449**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154193** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609449**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154193** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.7	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	9.3		10.00		93.3	70	130			

Sample ID **100ng lcsb**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154194** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	113	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	19	1.0	20.00	0	95.8	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609449**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **100ng lcsb**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154194** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21	1.0	20.00	0	106	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	106	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.0	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	9.6		10.00		95.5	70	130			

Sample ID **1609449-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **OW-1**	Batch ID: **R37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154203** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	70	130			
Toluene	20	1.0	20.00	0	97.6	70	130			
Chlorobenzene	19	1.0	20.00	0	93.5	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	96.9	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.6	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.3	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	9.6		10.00		95.8	70	130			

Sample ID **1609449-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **OW-1**	Batch ID: **R37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154211** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	112	70	130	1.13	20	
Toluene	20	1.0	20.00	0	98.8	70	130	1.17	20	
Chlorobenzene	19	1.0	20.00	0	92.6	70	130	0.984	20	
1,1-Dichloroethene	20	1.0	20.00	0	98.1	70	130	1.29	20	
Trichloroethene (TCE)	21	1.0	20.00	0	103	70	130	1.64	20	
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.3		10.00		93.3	70	130	0	0	
Surr: Dibromofluoromethane	11		10.00		106	70	130	0	0	
Surr: Toluene-d8	9.6		10.00		95.8	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609449**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **W37277**	RunNo: **37277**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1157453** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609449**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **W37277**	RunNo: **37277**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1157453** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.4	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.0	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.1		10.00		90.8	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **W37277**	RunNo: **37277**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1157454** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.9	70	130			
Toluene	17	1.0	20.00	0	85.8	70	130			
Chlorobenzene	16	1.0	20.00	0	82.2	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609449**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **W37277**	RunNo: **37277**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1157454** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	18	1.0	20.00	0	88.0	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	93.0	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.3	70	130			
Surr: Dibromofluoromethane	10		10.00		105	70	130			
Surr: Toluene-d8	9.3		10.00		92.8	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609449**

18-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154472** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.4		10.00		94.1	70	130			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154473** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.52	0.050	0.5000	0	105	75.4	118			
Surr: BFB	10		10.00		100	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1609449** RcptNo: **1**

Received by/date: AG 09/08/16

Logged By: **Ashley Gallegos** 9/8/2016 5:10:00 PM

Completed By: **Ashley Gallegos** 9/9/2016 11:50:22 AM

Reviewed By: JC 09/09/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 6 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? NO
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: AJS

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address: **NOTE NEW ADDRESS**

92 GIANT CROSSING ROAD, GALLUP, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:

X Standard ☐ **Rush**_____

Project Name:

2016 ANNUAL

Project #:

OW-1, 10

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON

On Ice: X Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609449	Analysis Request: 8260+MTBE	8270C + PHENOLS	8015D	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	Major Cations/Anions	8011D FOR EDB	Air Bubbles (Y or N)
9/6/2016	1300	AQUEOUS	OW-1			-001	X		X	X	X	X	X	
9/6/2016	1140	AQUEOUS	OW-10			-002	X		X	X	X	X	X	
		AQUEOUS												
		AQUEOUS	FIELD BLANK			-003	X							
		AQUEOUS	TRIP BLANK			-004	X							
		AQUEOUS												

Date:	Time:	Relinquished by:	Received by:	Date	Time
9/8/16	1500			9/8/16	1500
9/8/16	1710			09/08/16	1710

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 11, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 Annual OrderNo.: 1609451

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 7 sample(s) on 9/8/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2C
Project: 2016 Annual
Collection Date: 9/8/2016 12:25:00 PM
Lab ID: 1609451-001
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/12/2016 9:31:28 PM	27430
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 9:31:28 PM	27430
Surr: DNOP	112	0	77.1-144		%Rec	1	9/12/2016 9:31:28 PM	27430
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	1.9	0.050	0.10		mg/L	1	9/12/2016 10:21:02 PM	A37143
Chloride	42	1.0	10		mg/L	20	9/12/2016 10:33:27 PM	A37143
Bromide	0.098	0.044	0.10	J	mg/L	1	9/12/2016 10:21:02 PM	A37143
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/12/2016 10:21:02 PM	A37143
Sulfate	270	2.8	10		mg/L	20	9/12/2016 10:33:27 PM	A37143
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 1:09:01 PM	R37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.016	0.0013	0.0020		mg/L	1	9/19/2016 4:16:29 PM	B37295
Cadmium	ND	0.00075	0.0020		mg/L	1	9/19/2016 4:16:29 PM	B37295
Calcium	2.0	0.50	1.0		mg/L	1	9/19/2016 4:16:29 PM	B37295
Chromium	ND	0.0018	0.0060		mg/L	1	9/19/2016 4:16:29 PM	B37295
Copper	ND	0.0040	0.0060		mg/L	1	9/19/2016 4:16:29 PM	B37295
Iron	ND	0.020	0.020		mg/L	1	9/19/2016 4:16:29 PM	B37295
Magnesium	ND	0.50	1.0		mg/L	1	9/19/2016 4:16:29 PM	B37295
Manganese	0.0039	0.00032	0.0020		mg/L	1	9/19/2016 4:16:29 PM	B37295
Potassium	0.60	0.50	1.0	J	mg/L	1	9/19/2016 4:16:29 PM	B37295
Silver	ND	0.0028	0.0050		mg/L	1	9/19/2016 4:16:29 PM	B37295
Sodium	320	2.5	5.0		mg/L	5	9/19/2016 4:22:38 PM	B37295
Zinc	ND	0.0028	0.010		mg/L	1	9/19/2016 4:16:29 PM	B37295
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.020	0.00079	0.0020		mg/L	1	9/21/2016 2:56:55 PM	27574
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 2:56:55 PM	27574
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 2:56:55 PM	27574
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 2:56:55 PM	27574
Iron	0.20	0.020	0.020		mg/L	1	9/21/2016 2:56:55 PM	27574
Manganese	0.013	0.00027	0.0020		mg/L	1	9/21/2016 2:56:55 PM	27574
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 2:56:55 PM	27574
Zinc	ND	0.0027	0.010		mg/L	1	9/21/2016 2:56:55 PM	27574
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.00067	0.00014	0.0010	J	mg/L	1	9/20/2016 3:03:56 PM	C37327
Lead	ND	0.00017	0.00050		mg/L	1	9/20/2016 3:03:56 PM	C37327
Selenium	0.00070	0.00021	0.0010	J	mg/L	1	9/20/2016 3:03:56 PM	C37327
Uranium	0.0050	0.000051	0.00050		mg/L	1	9/20/2016 3:03:56 PM	C37327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2C
Project: 2016 Annual
Collection Date: 9/8/2016 12:25:00 PM
Lab ID: 1609451-001
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.00057	0.00021	0.0010	J	mg/L	1	9/20/2016 6:38:08 PM	27574
Lead	0.00017	0.000081	0.00050	J	mg/L	1	9/20/2016 6:38:08 PM	27574
Selenium	0.00025	0.00019	0.0010	J	mg/L	1	9/20/2016 6:38:08 PM	27574
Uranium	0.0047	0.00017	0.00050		mg/L	1	9/20/2016 6:38:08 PM	27574
EPA METHOD 245.1: MERCURY							Analyst: **MED**	
Mercury	0.000058	0.000053	0.00020	J	mg/L	1	9/15/2016 1:23:27 PM	27494
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Toluene	ND	0.12	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Naphthalene	ND	0.093	2.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Acetone	ND	4.9	10		µg/L	1	9/14/2016 2:50:25 PM	R37199
Bromobenzene	ND	0.098	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Bromoform	ND	0.10	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Bromomethane	ND	0.78	3.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
2-Butanone	ND	0.74	10		µg/L	1	9/14/2016 2:50:25 PM	R37199
Carbon disulfide	ND	0.60	10		µg/L	1	9/14/2016 2:50:25 PM	R37199
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Chloroethane	ND	0.19	2.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Chloroform	ND	0.089	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Chloromethane	ND	0.21	3.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Dibromomethane	ND	0.12	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2C
Project: 2016 Annual
Collection Date: 9/8/2016 12:25:00 PM
Lab ID: 1609451-001
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
2-Hexanone	ND	0.84	10		µg/L	1	9/14/2016 2:50:25 PM	R37199
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/14/2016 2:50:25 PM	R37199
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Styrene	ND	0.11	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/14/2016 2:50:25 PM	R37199
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/14/2016 2:50:25 PM	R37199
Surr: 1,2-Dichloroethane-d4	105	0	70-130		%Rec	1	9/14/2016 2:50:25 PM	R37199
Surr: 4-Bromofluorobenzene	94.2	0	70-130		%Rec	1	9/14/2016 2:50:25 PM	R37199
Surr: Dibromofluoromethane	112	0	70-130		%Rec	1	9/14/2016 2:50:25 PM	R37199
Surr: Toluene-d8	94.7	0	70-130		%Rec	1	9/14/2016 2:50:25 PM	R37199
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2C
Project: 2016 Annual
Collection Date: 9/8/2016 12:25:00 PM
Lab ID: 1609451-001
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/14/2016 2:50:25 PM	G37199
Surr: BFB	97.6	0	70-130		%Rec	1	9/14/2016 2:50:25 PM	G37199

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2A
Project: 2016 Annual
Collection Date: 9/8/2016 9:40:00 AM
Lab ID: 1609451-002
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/12/2016 9:58:58 PM	27430
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 9:58:58 PM	27430
Surr: DNOP	112	0	77.1-144		%Rec	1	9/12/2016 9:58:58 PM	27430
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.98	0.050	0.10		mg/L	1	9/12/2016 11:35:30 PM	A37143
Chloride	36	1.0	10		mg/L	20	9/12/2016 11:47:55 PM	A37143
Bromide	0.42	0.044	0.10		mg/L	1	9/12/2016 11:35:30 PM	A37143
Phosphorus, Orthophosphate (As P)	0.94	0.076	0.50	H	mg/L	1	9/12/2016 11:35:30 PM	A37143
Sulfate	7.3	0.14	0.50		mg/L	1	9/12/2016 11:35:30 PM	A37143
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 1:21:26 PM	R37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.15	0.0013	0.0020		mg/L	1	9/19/2016 4:35:50 PM	B37295
Cadmium	ND	0.00075	0.0020		mg/L	1	9/19/2016 4:35:50 PM	B37295
Calcium	9.0	0.50	1.0		mg/L	1	9/19/2016 4:35:50 PM	B37295
Chromium	ND	0.0018	0.0060		mg/L	1	9/19/2016 4:35:50 PM	B37295
Copper	ND	0.0040	0.0060		mg/L	1	9/19/2016 4:35:50 PM	B37295
Iron	0.37	0.020	0.020	*	mg/L	1	9/19/2016 4:35:50 PM	B37295
Magnesium	3.4	0.50	1.0		mg/L	1	9/19/2016 4:35:50 PM	B37295
Manganese	0.14	0.00032	0.0020	*	mg/L	1	9/19/2016 4:35:50 PM	B37295
Potassium	0.65	0.50	1.0	J	mg/L	1	9/19/2016 4:35:50 PM	B37295
Silver	ND	0.0028	0.0050		mg/L	1	9/19/2016 4:35:50 PM	B37295
Sodium	350	2.5	5.0		mg/L	5	9/19/2016 4:41:41 PM	B37295
Zinc	ND	0.0028	0.010		mg/L	1	9/19/2016 4:35:50 PM	B37295
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.15	0.00079	0.0020		mg/L	1	9/21/2016 3:04:50 PM	27574
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 3:04:50 PM	27574
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 3:04:50 PM	27574
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 3:04:50 PM	27574
Iron	0.40	0.020	0.020	*	mg/L	1	9/21/2016 3:04:50 PM	27574
Manganese	0.14	0.00027	0.0020	*	mg/L	1	9/21/2016 3:04:50 PM	27574
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 3:04:50 PM	27574
Zinc	ND	0.0027	0.010		mg/L	1	9/21/2016 3:04:50 PM	27574
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0079	0.00014	0.0010		mg/L	1	9/20/2016 3:07:01 PM	C37327
Lead	ND	0.00017	0.00050		mg/L	1	9/20/2016 3:07:01 PM	C37327
Selenium	0.0020	0.0011	0.0050	J	mg/L	5	9/21/2016 8:10:55 PM	A37386
Uranium	0.000076	0.000051	0.00050	J	mg/L	1	9/20/2016 3:07:01 PM	C37327

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2A
Project: 2016 Annual
Collection Date: 9/8/2016 9:40:00 AM
Lab ID: 1609451-002
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0072	0.00021	0.0010		mg/L	1	9/20/2016 6:41:08 PM	27574
Lead	ND	0.000081	0.00050		mg/L	1	9/20/2016 6:41:08 PM	27574
Selenium	0.0014	0.00019	0.0010		mg/L	1	9/20/2016 6:41:08 PM	27574
Uranium	ND	0.00017	0.00050		mg/L	1	9/20/2016 6:41:08 PM	27574
EPA METHOD 245.1: MERCURY							Analyst: **MED**	
Mercury	0.000053	0.000053	0.00020	J	mg/L	1	9/15/2016 1:25:28 PM	27494
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Toluene	ND	0.12	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Naphthalene	ND	0.093	2.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Acetone	ND	4.9	10		µg/L	1	9/14/2016 3:19:19 PM	R37199
Bromobenzene	ND	0.098	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Bromoform	ND	0.10	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Bromomethane	ND	0.78	3.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
2-Butanone	ND	0.74	10		µg/L	1	9/14/2016 3:19:19 PM	R37199
Carbon disulfide	ND	0.60	10		µg/L	1	9/14/2016 3:19:19 PM	R37199
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Chloroethane	ND	0.19	2.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Chloroform	ND	0.089	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Chloromethane	ND	0.21	3.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Dibromomethane	ND	0.12	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2A
Project: 2016 Annual
Collection Date: 9/8/2016 9:40:00 AM
Lab ID: 1609451-002
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
2-Hexanone	ND	0.84	10		µg/L	1	9/14/2016 3:19:19 PM	R37199
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/14/2016 3:19:19 PM	R37199
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Styrene	ND	0.11	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/14/2016 3:19:19 PM	R37199
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/14/2016 3:19:19 PM	R37199
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	9/14/2016 3:19:19 PM	R37199
Surr: 4-Bromofluorobenzene	91.5	0	70-130		%Rec	1	9/14/2016 3:19:19 PM	R37199
Surr: Dibromofluoromethane	106	0	70-130		%Rec	1	9/14/2016 3:19:19 PM	R37199
Surr: Toluene-d8	94.5	0	70-130		%Rec	1	9/14/2016 3:19:19 PM	R37199
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2A
Project: 2016 Annual
Collection Date: 9/8/2016 9:40:00 AM
Lab ID: 1609451-002
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/14/2016 3:19:19 PM	G37199
Surr: BFB	93.5	0	70-130		%Rec	1	9/14/2016 3:19:19 PM	G37199

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2B
Project: 2016 Annual
Collection Date: 9/8/2016 10:06:00 AM
Lab ID: 1609451-003
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/12/2016 10:26:38 PM	27430
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 10:26:38 PM	27430
Surr: DNOP	114	0	77.1-144		%Rec	1	9/12/2016 10:26:38 PM	27430
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	1.5	0.050	0.10		mg/L	1	9/13/2016 12:00:20 AM	A37143
Chloride	30	1.0	10		mg/L	20	9/13/2016 12:12:44 AM	A37143
Bromide	0.70	0.044	0.10		mg/L	1	9/13/2016 12:00:20 AM	A37143
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/13/2016 12:00:20 AM	A37143
Sulfate	170	2.8	10		mg/L	20	9/13/2016 12:12:44 AM	A37143
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 1:33:50 PM	R37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.040	0.0013	0.0020		mg/L	1	9/19/2016 4:47:19 PM	B37295
Cadmium	ND	0.00075	0.0020		mg/L	1	9/19/2016 4:47:19 PM	B37295
Calcium	13	0.50	1.0		mg/L	1	9/19/2016 4:47:19 PM	B37295
Chromium	ND	0.0018	0.0060		mg/L	1	9/19/2016 4:47:19 PM	B37295
Copper	ND	0.0040	0.0060		mg/L	1	9/19/2016 4:47:19 PM	B37295
Iron	0.10	0.020	0.020		mg/L	1	9/19/2016 4:47:19 PM	B37295
Magnesium	3.1	0.50	1.0		mg/L	1	9/19/2016 4:47:19 PM	B37295
Manganese	0.15	0.00032	0.0020	*	mg/L	1	9/19/2016 4:47:19 PM	B37295
Potassium	1.5	0.50	1.0		mg/L	1	9/19/2016 4:47:19 PM	B37295
Silver	ND	0.0028	0.0050		mg/L	1	9/19/2016 4:47:19 PM	B37295
Sodium	590	5.0	10		mg/L	10	9/23/2016 2:36:38 PM	B37443
Zinc	ND	0.0028	0.010		mg/L	1	9/19/2016 4:47:19 PM	B37295
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.049	0.00079	0.0020		mg/L	1	9/21/2016 3:06:51 PM	27574
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 3:06:51 PM	27574
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 3:06:51 PM	27574
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 3:06:51 PM	27574
Iron	0.65	0.020	0.020	*	mg/L	1	9/21/2016 3:06:51 PM	27574
Manganese	0.15	0.00027	0.0020	*	mg/L	1	9/21/2016 3:06:51 PM	27574
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 3:06:51 PM	27574
Zinc	ND	0.0027	0.010		mg/L	1	9/21/2016 3:06:51 PM	27574
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0017	0.00014	0.0010		mg/L	1	9/20/2016 3:10:04 PM	C37327
Lead	ND	0.00017	0.00050		mg/L	1	9/20/2016 3:10:04 PM	C37327
Selenium	0.0039	0.0011	0.0050	J	mg/L	5	9/21/2016 8:13:58 PM	A37386
Uranium	0.013	0.000051	0.00050		mg/L	1	9/20/2016 3:10:04 PM	C37327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2B
Project: 2016 Annual
Collection Date: 9/8/2016 10:06:00 AM
Lab ID: 1609451-003
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0015	0.00021	0.0010		mg/L	1	9/20/2016 6:44:09 PM	27574
Lead	0.00039	0.000081	0.00050	J	mg/L	1	9/20/2016 6:44:09 PM	27574
Selenium	0.0036	0.00094	0.0050	J	mg/L	5	9/21/2016 4:51:59 PM	27574
Uranium	0.012	0.00017	0.00050		mg/L	1	9/20/2016 6:44:09 PM	27574
EPA METHOD 245.1: MERCURY							Analyst: **MED**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/15/2016 1:27:30 PM	27494
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Toluene	ND	0.12	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Naphthalene	ND	0.093	2.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Acetone	ND	4.9	10		µg/L	1	9/14/2016 3:47:59 PM	R37199
Bromobenzene	ND	0.098	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Bromoform	ND	0.10	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Bromomethane	ND	0.78	3.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
2-Butanone	ND	0.74	10		µg/L	1	9/14/2016 3:47:59 PM	R37199
Carbon disulfide	ND	0.60	10		µg/L	1	9/14/2016 3:47:59 PM	R37199
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Chloroethane	ND	0.19	2.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Chloroform	ND	0.089	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Chloromethane	ND	0.21	3.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Dibromomethane	ND	0.12	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2B
Project: 2016 Annual
Collection Date: 9/8/2016 10:06:00 AM
Lab ID: 1609451-003
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
2-Hexanone	ND	0.84	10		µg/L	1	9/14/2016 3:47:59 PM	R37199
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/14/2016 3:47:59 PM	R37199
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Styrene	ND	0.11	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/14/2016 3:47:59 PM	R37199
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/14/2016 3:47:59 PM	R37199
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	9/14/2016 3:47:59 PM	R37199
Surr: 4-Bromofluorobenzene	93.5	0	70-130		%Rec	1	9/14/2016 3:47:59 PM	R37199
Surr: Dibromofluoromethane	104	0	70-130		%Rec	1	9/14/2016 3:47:59 PM	R37199
Surr: Toluene-d8	92.3	0	70-130		%Rec	1	9/14/2016 3:47:59 PM	R37199
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2B
Project: 2016 Annual
Collection Date: 9/8/2016 10:06:00 AM
Lab ID: 1609451-003
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/14/2016 3:47:59 PM	G37199
Surr: BFB	94.1	0	70-130		%Rec	1	9/14/2016 3:47:59 PM	G37199

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-3B
Project: 2016 Annual
Collection Date: 9/8/2016 1:55:00 PM
Lab ID: 1609451-004
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/12/2016 10:54:32 PM	27430
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 10:54:32 PM	27430
Surr: DNOP	112	0	77.1-144		%Rec	1	9/12/2016 10:54:32 PM	27430
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	1.2	0.050	0.10		mg/L	1	9/13/2016 12:25:09 AM	A37143
Chloride	30	1.0	10		mg/L	20	9/13/2016 12:37:33 AM	A37143
Bromide	0.41	0.044	0.10		mg/L	1	9/13/2016 12:25:09 AM	A37143
Phosphorus, Orthophosphate (As P)	1.3	0.076	0.50	H	mg/L	1	9/13/2016 12:25:09 AM	A37143
Sulfate	50	2.8	10		mg/L	20	9/13/2016 12:37:33 AM	A37143
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 1:46:15 PM	R37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.10	0.0013	0.0020		mg/L	1	9/19/2016 4:51:23 PM	B37295
Cadmium	ND	0.00075	0.0020		mg/L	1	9/19/2016 4:51:23 PM	B37295
Calcium	8.4	0.50	1.0		mg/L	1	9/19/2016 4:51:23 PM	B37295
Chromium	ND	0.0018	0.0060		mg/L	1	9/19/2016 4:51:23 PM	B37295
Copper	ND	0.0040	0.0060		mg/L	1	9/19/2016 4:51:23 PM	B37295
Iron	0.41	0.020	0.020	*	mg/L	1	9/19/2016 4:51:23 PM	B37295
Magnesium	2.7	0.50	1.0		mg/L	1	9/19/2016 4:51:23 PM	B37295
Manganese	0.11	0.00032	0.0020	*	mg/L	1	9/19/2016 4:51:23 PM	B37295
Potassium	0.91	0.50	1.0	J	mg/L	1	9/19/2016 4:51:23 PM	B37295
Silver	ND	0.0028	0.0050		mg/L	1	9/19/2016 4:51:23 PM	B37295
Sodium	400	2.5	5.0		mg/L	5	9/19/2016 4:53:30 PM	B37295
Zinc	ND	0.0028	0.010		mg/L	1	9/19/2016 4:51:23 PM	B37295
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.099	0.00079	0.0020		mg/L	1	9/21/2016 3:09:02 PM	27574
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 3:09:02 PM	27574
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 3:09:02 PM	27574
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 3:09:02 PM	27574
Iron	0.34	0.020	0.020	*	mg/L	1	9/21/2016 3:09:02 PM	27574
Manganese	0.078	0.00027	0.0020	*	mg/L	1	9/21/2016 3:09:02 PM	27574
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 3:09:02 PM	27574
Zinc	ND	0.0027	0.010		mg/L	1	9/21/2016 3:09:02 PM	27574
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0059	0.00014	0.0010		mg/L	1	9/20/2016 3:13:07 PM	C37327
Lead	ND	0.00017	0.00050		mg/L	1	9/20/2016 3:13:07 PM	C37327
Selenium	0.0024	0.0011	0.0050	J	mg/L	5	9/21/2016 8:17:01 PM	A37386
Uranium	0.00013	0.000051	0.00050	J	mg/L	1	9/20/2016 3:13:07 PM	C37327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-3B
Project: 2016 Annual
Collection Date: 9/8/2016 1:55:00 PM
Lab ID: 1609451-004
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0055	0.00021	0.0010		mg/L	1	9/20/2016 6:47:09 PM	27574
Lead	0.00010	0.000081	0.00050	J	mg/L	1	9/20/2016 6:47:09 PM	27574
Selenium	0.0017	0.00019	0.0010		mg/L	1	9/20/2016 6:47:09 PM	27574
Uranium	ND	0.00017	0.00050		mg/L	1	9/20/2016 6:47:09 PM	27574
EPA METHOD 245.1: MERCURY							Analyst: **MED**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/15/2016 1:29:32 PM	27494
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Toluene	ND	0.12	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Naphthalene	ND	0.093	2.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Acetone	ND	4.9	10		µg/L	1	9/14/2016 4:17:01 PM	R37199
Bromobenzene	ND	0.098	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Bromoform	ND	0.10	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Bromomethane	ND	0.78	3.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
2-Butanone	ND	0.74	10		µg/L	1	9/14/2016 4:17:01 PM	R37199
Carbon disulfide	ND	0.60	10		µg/L	1	9/14/2016 4:17:01 PM	R37199
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Chloroethane	ND	0.19	2.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Chloroform	ND	0.089	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Chloromethane	ND	0.21	3.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Dibromomethane	ND	0.12	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-3B
Project: 2016 Annual
Collection Date: 9/8/2016 1:55:00 PM
Lab ID: 1609451-004
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
2-Hexanone	ND	0.84	10		µg/L	1	9/14/2016 4:17:01 PM	R37199
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/14/2016 4:17:01 PM	R37199
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Styrene	ND	0.11	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/14/2016 4:17:01 PM	R37199
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/14/2016 4:17:01 PM	R37199
Surr: 1,2-Dichloroethane-d4	105	0	70-130		%Rec	1	9/14/2016 4:17:01 PM	R37199
Surr: 4-Bromofluorobenzene	93.6	0	70-130		%Rec	1	9/14/2016 4:17:01 PM	R37199
Surr: Dibromofluoromethane	114	0	70-130		%Rec	1	9/14/2016 4:17:01 PM	R37199
Surr: Toluene-d8	92.5	0	70-130		%Rec	1	9/14/2016 4:17:01 PM	R37199
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-3B
Project: 2016 Annual
Collection Date: 9/8/2016 1:55:00 PM
Lab ID: 1609451-004
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/14/2016 4:17:01 PM	G37199
Surr: BFB	95.1	0	70-130		%Rec	1	9/14/2016 4:17:01 PM	G37199

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-3C
Project: 2016 Annual
Collection Date: 9/8/2016 1:30:00 PM
Lab ID: 1609451-005
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/12/2016 11:22:05 PM	27430
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 11:22:05 PM	27430
Surr: DNOP	111	0	77.1-144		%Rec	1	9/12/2016 11:22:05 PM	27430
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	1.3	0.050	0.10		mg/L	1	9/13/2016 12:49:58 AM	A37143
Chloride	35	1.0	10		mg/L	20	9/13/2016 1:02:24 AM	A37143
Bromide	0.12	0.044	0.10		mg/L	1	9/13/2016 12:49:58 AM	A37143
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/13/2016 12:49:58 AM	A37143
Sulfate	330	2.8	10		mg/L	20	9/13/2016 1:02:24 AM	A37143
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 1:58:40 PM	R37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.027	0.0013	0.0020		mg/L	1	9/19/2016 5:02:35 PM	B37295
Cadmium	ND	0.00075	0.0020		mg/L	1	9/19/2016 5:02:35 PM	B37295
Calcium	3.3	0.50	1.0		mg/L	1	9/19/2016 5:02:35 PM	B37295
Chromium	ND	0.0018	0.0060		mg/L	1	9/19/2016 5:02:35 PM	B37295
Copper	ND	0.0040	0.0060		mg/L	1	9/19/2016 5:02:35 PM	B37295
Iron	0.029	0.020	0.020		mg/L	1	9/19/2016 5:02:35 PM	B37295
Magnesium	0.51	0.50	1.0	J	mg/L	1	9/19/2016 5:02:35 PM	B37295
Manganese	0.014	0.00032	0.0020		mg/L	1	9/19/2016 5:02:35 PM	B37295
Potassium	0.99	0.50	1.0	J	mg/L	1	9/19/2016 5:02:35 PM	B37295
Silver	ND	0.0028	0.0050		mg/L	1	9/19/2016 5:02:35 PM	B37295
Sodium	370	2.5	5.0		mg/L	5	9/19/2016 5:04:41 PM	B37295
Zinc	ND	0.0028	0.010		mg/L	1	9/19/2016 5:02:35 PM	B37295
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.033	0.00079	0.0020		mg/L	1	9/21/2016 3:11:11 PM	27574
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 3:11:11 PM	27574
Chromium	ND	0.0027	0.0060		mg/L	1	9/21/2016 3:11:11 PM	27574
Copper	ND	0.0030	0.0060		mg/L	1	9/21/2016 3:11:11 PM	27574
Iron	0.34	0.020	0.020	*	mg/L	1	9/21/2016 3:11:11 PM	27574
Manganese	0.021	0.00027	0.0020		mg/L	1	9/21/2016 3:11:11 PM	27574
Silver	ND	0.0015	0.0050		mg/L	1	9/21/2016 3:11:11 PM	27574
Zinc	0.0056	0.0027	0.010	J	mg/L	1	9/21/2016 3:11:11 PM	27574
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0013	0.00014	0.0010		mg/L	1	9/20/2016 3:22:22 PM	C37327
Lead	ND	0.00017	0.00050		mg/L	1	9/20/2016 3:22:22 PM	C37327
Selenium	0.00076	0.00021	0.0010	J	mg/L	1	9/20/2016 3:22:22 PM	C37327
Uranium	0.0015	0.000051	0.00050		mg/L	1	9/20/2016 3:22:22 PM	C37327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-3C
Project: 2016 Annual
Collection Date: 9/8/2016 1:30:00 PM
Lab ID: 1609451-005
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0013	0.00021	0.0010		mg/L	1	9/20/2016 6:56:14 PM	27574
Lead	0.00034	0.000081	0.00050	J	mg/L	1	9/20/2016 6:56:14 PM	27574
Selenium	0.00051	0.00019	0.0010	J	mg/L	1	9/20/2016 6:56:14 PM	27574
Uranium	0.0014	0.00017	0.00050		mg/L	1	9/20/2016 6:56:14 PM	27574
EPA METHOD 245.1: MERCURY							Analyst: **MED**	
Mercury	0.000058	0.000053	0.00020	J	mg/L	1	9/15/2016 1:31:35 PM	27494
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Toluene	ND	0.12	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Naphthalene	ND	0.093	2.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Acetone	ND	4.9	10		µg/L	1	9/14/2016 4:45:52 PM	R37199
Bromobenzene	ND	0.098	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Bromoform	ND	0.10	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Bromomethane	ND	0.78	3.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
2-Butanone	ND	0.74	10		µg/L	1	9/14/2016 4:45:52 PM	R37199
Carbon disulfide	ND	0.60	10		µg/L	1	9/14/2016 4:45:52 PM	R37199
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Chloroethane	ND	0.19	2.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Chloroform	ND	0.089	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Chloromethane	ND	0.21	3.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Dibromomethane	ND	0.12	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-3C
Project: 2016 Annual
Collection Date: 9/8/2016 1:30:00 PM
Lab ID: 1609451-005
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
2-Hexanone	ND	0.84	10		µg/L	1	9/14/2016 4:45:52 PM	R37199
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/14/2016 4:45:52 PM	R37199
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Styrene	ND	0.11	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/14/2016 4:45:52 PM	R37199
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/14/2016 4:45:52 PM	R37199
Surr: 1,2-Dichloroethane-d4	99.2	0	70-130		%Rec	1	9/14/2016 4:45:52 PM	R37199
Surr: 4-Bromofluorobenzene	92.9	0	70-130		%Rec	1	9/14/2016 4:45:52 PM	R37199
Surr: Dibromofluoromethane	106	0	70-130		%Rec	1	9/14/2016 4:45:52 PM	R37199
Surr: Toluene-d8	93.3	0	70-130		%Rec	1	9/14/2016 4:45:52 PM	R37199
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-3C
Project: 2016 Annual
Collection Date: 9/8/2016 1:30:00 PM
Lab ID: 1609451-005
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/14/2016 4:45:52 PM	G37199
Surr: BFB	93.3	0	70-130		%Rec	1	9/14/2016 4:45:52 PM	G37199

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 Annual
Collection Date:
Lab ID: 1609451-006
Matrix: TRIP BLANK
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Toluene	ND	0.12	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Naphthalene	ND	0.093	2.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Acetone	ND	4.9	10		µg/L	1	9/14/2016 5:14:36 PM	R37199
Bromobenzene	ND	0.098	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Bromoform	ND	0.10	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Bromomethane	ND	0.78	3.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
2-Butanone	ND	0.74	10		µg/L	1	9/14/2016 5:14:36 PM	R37199
Carbon disulfide	ND	0.60	10		µg/L	1	9/14/2016 5:14:36 PM	R37199
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Chloroethane	ND	0.19	2.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Chloroform	ND	0.089	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Chloromethane	ND	0.21	3.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Dibromomethane	ND	0.12	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/14/2016 5:14:36 PM	R37199

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 Annual
Collection Date:
Lab ID: 1609451-006
Matrix: TRIP BLANK
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
2-Hexanone	ND	0.84	10		µg/L	1	9/14/2016 5:14:36 PM	R37199
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/14/2016 5:14:36 PM	R37199
Methylene Chloride	0.34	0.19	3.0	J	µg/L	1	9/14/2016 5:14:36 PM	R37199
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Styrene	ND	0.11	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/14/2016 5:14:36 PM	R37199
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/14/2016 5:14:36 PM	R37199
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	1	9/14/2016 5:14:36 PM	R37199
Surr: 4-Bromofluorobenzene	92.5	0	70-130		%Rec	1	9/14/2016 5:14:36 PM	R37199
Surr: Dibromofluoromethane	109	0	70-130		%Rec	1	9/14/2016 5:14:36 PM	R37199
Surr: Toluene-d8	92.9	0	70-130		%Rec	1	9/14/2016 5:14:36 PM	R37199

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 Annual
Collection Date:
Lab ID: 1609451-007
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Toluene	0.12	0.12	1.0	J	µg/L	1	9/14/2016 5:43:28 PM	R37199
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Naphthalene	ND	0.093	2.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Acetone	ND	4.9	10		µg/L	1	9/14/2016 5:43:28 PM	R37199
Bromobenzene	ND	0.098	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Bromoform	ND	0.10	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Bromomethane	ND	0.78	3.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
2-Butanone	ND	0.74	10		µg/L	1	9/14/2016 5:43:28 PM	R37199
Carbon disulfide	ND	0.60	10		µg/L	1	9/14/2016 5:43:28 PM	R37199
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Chloroethane	ND	0.19	2.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Chloroform	ND	0.089	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Chloromethane	ND	0.21	3.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Dibromomethane	ND	0.12	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/14/2016 5:43:28 PM	R37199

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 Annual
Collection Date:
Lab ID: 1609451-007
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
2-Hexanone	ND	0.84	10		µg/L	1	9/14/2016 5:43:28 PM	R37199
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/14/2016 5:43:28 PM	R37199
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Styrene	ND	0.11	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/14/2016 5:43:28 PM	R37199
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/14/2016 5:43:28 PM	R37199
Surr: 1,2-Dichloroethane-d4	99.9	0	70-130		%Rec	1	9/14/2016 5:43:28 PM	R37199
Surr: 4-Bromofluorobenzene	94.9	0	70-130		%Rec	1	9/14/2016 5:43:28 PM	R37199
Surr: Dibromofluoromethane	107	0	70-130		%Rec	1	9/14/2016 5:43:28 PM	R37199
Surr: Toluene-d8	95.9	0	70-130		%Rec	1	9/14/2016 5:43:28 PM	R37199

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609451**

11-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B37295**	RunNo: **37295**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1158025** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B37295**	RunNo: **37295**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1158026** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.5	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.4	85	115			
Calcium	50	1.0	50.00	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	97.1	85	115			
Copper	0.50	0.0060	0.5000	0	99.4	85	115			
Iron	0.50	0.020	0.5000	0	99.5	85	115			
Magnesium	51	1.0	50.00	0	102	85	115			
Manganese	0.48	0.0020	0.5000	0	97.0	85	115			
Potassium	50	1.0	50.00	0	99.7	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	50	1.0	50.00	0	101	85	115			
Zinc	0.49	0.010	0.5000	0	97.8	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37295**	RunNo: **37295**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1158027** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	101	50	150			
Cadmium	0.0014	0.0020	0.002000	0	70.0	50	150			J
Calcium	0.55	1.0	0.5000	0	111	50	150			J
Chromium	0.0063	0.0060	0.006000	0	104	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609451**

11-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37295**	RunNo: **37295**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1158027** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0062	0.0060	0.006000	0	104	50	150			
Iron	0.025	0.020	0.02000	0	124	50	150			
Magnesium	0.55	1.0	0.5000	0	111	50	150			J
Manganese	0.0020	0.0020	0.002000	0	99.0	50	150			J
Potassium	0.58	1.0	0.5000	0	115	50	150			J
Silver	0.0052	0.0050	0.005000	0	103	50	150			
Sodium	0.55	1.0	0.5000	0	111	50	150			J
Zinc	0.0054	0.010	0.005000	0	109	50	150			J

Sample ID **1609451-001EMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BW-2C**	Batch ID: **B37295**	RunNo: **37295**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1158532** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0.01598	96.4	70	130			
Cadmium	0.50	0.0020	0.5000	0	100	70	130			
Calcium	52	1.0	50.00	1.988	99.4	70	130			
Chromium	0.48	0.0060	0.5000	0	96.6	70	130			
Copper	0.51	0.0060	0.5000	0	101	70	130			
Iron	0.49	0.020	0.5000	0	97.8	70	130			
Magnesium	51	1.0	50.00	0	102	70	130			
Manganese	0.48	0.0020	0.5000	0.003870	95.9	70	130			
Potassium	51	1.0	50.00	0.6031	101	70	130			
Silver	0.093	0.0050	0.1000	0	93.0	70	130			
Zinc	0.49	0.010	0.5000	0	98.1	70	130			

Sample ID **1609451-001EMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BW-2C**	Batch ID: **B37295**	RunNo: **37295**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1158533** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.01598	95.8	70	130	0.629	20	
Cadmium	0.50	0.0020	0.5000	0	99.6	70	130	0.565	20	
Calcium	47	1.0	50.00	1.988	90.7	70	130	8.73	20	
Chromium	0.48	0.0060	0.5000	0	96.0	70	130	0.546	20	
Copper	0.50	0.0060	0.5000	0	101	70	130	0.885	20	
Iron	0.49	0.020	0.5000	0	98.5	70	130	0.674	20	
Magnesium	47	1.0	50.00	0	93.0	70	130	9.29	20	
Manganese	0.48	0.0020	0.5000	0.003870	95.2	70	130	0.718	20	
Potassium	47	1.0	50.00	0.6031	93.4	70	130	7.82	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609451**

11-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID	**1609451-001EMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**BW-2C**	Batch ID:	**B37295**		RunNo:	**37295**				
Prep Date:		Analysis Date:	**9/19/2016**		SeqNo:	**1158533**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.095	0.0050	0.1000	0	95.0	70	130	2.06	20	
Zinc	0.49	0.010	0.5000	0	97.8	70	130	0.335	20	

Sample ID	**1609451-002EMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**BW-2A**	Batch ID:	**B37295**		RunNo:	**37295**				
Prep Date:		Analysis Date:	**9/19/2016**		SeqNo:	**1158541**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.61	0.0020	0.5000	0.1454	93.7	70	130			
Cadmium	0.49	0.0020	0.5000	0	97.2	70	130			
Calcium	58	1.0	50.00	9.007	98.1	70	130			
Chromium	0.47	0.0060	0.5000	0	94.7	70	130			
Copper	0.50	0.0060	0.5000	0	99.2	70	130			
Iron	0.84	0.020	0.5000	0.3747	92.3	70	130			
Magnesium	53	1.0	50.00	3.375	99.1	70	130			
Manganese	0.60	0.0020	0.5000	0.1417	91.8	70	130			
Potassium	51	1.0	50.00	0.6548	99.8	70	130			
Silver	0.093	0.0050	0.1000	0	92.8	70	130			
Zinc	0.48	0.010	0.5000	0	95.3	70	130			

Sample ID	**1609451-002EMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**BW-2A**	Batch ID:	**B37295**		RunNo:	**37295**				
Prep Date:		Analysis Date:	**9/19/2016**		SeqNo:	**1158542**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.62	0.0020	0.5000	0.1454	95.9	70	130	1.74	20	
Cadmium	0.50	0.0020	0.5000	0	101	70	130	3.75	20	
Calcium	59	1.0	50.00	9.007	99.8	70	130	1.39	20	
Chromium	0.49	0.0060	0.5000	0	98.2	70	130	3.64	20	
Copper	0.51	0.0060	0.5000	0	102	70	130	2.51	20	
Iron	0.85	0.020	0.5000	0.3747	94.7	70	130	1.43	20	
Magnesium	54	1.0	50.00	3.375	101	70	130	1.84	20	
Manganese	0.61	0.0020	0.5000	0.1417	93.6	70	130	1.46	20	
Potassium	52	1.0	50.00	0.6548	102	70	130	2.12	20	
Silver	0.096	0.0050	0.1000	0	96.3	70	130	3.78	20	
Zinc	0.49	0.010	0.5000	0	97.0	70	130	1.81	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609451**

11-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID	**MB-B**	SampType:	**MBLK**		TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**B37443**		RunNo:	**37443**					
Prep Date:		Analysis Date:	**9/23/2016**		SeqNo:	**1164053**	Units:	**mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium		ND	1.0								

Sample ID	**LCS-B**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID:	**B37443**		RunNo:	**37443**					
Prep Date:		Analysis Date:	**9/23/2016**		SeqNo:	**1164054**	Units:	**mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium		50	1.0	50.00	0	101	85	115			

Sample ID	**LLLCS-B**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**B37443**		RunNo:	**37443**					
Prep Date:		Analysis Date:	**9/23/2016**		SeqNo:	**1164055**	Units:	**mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium		0.56	1.0	0.5000	0	112	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609451**

11-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **MB-27574**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **27574**	RunNo: **37369**
Prep Date: **9/19/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161346** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-27574**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **27574**	RunNo: **37369**
Prep Date: **9/19/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161347** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.7	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	97.5	85	115			
Copper	0.48	0.0060	0.5000	0	95.7	85	115			
Iron	0.48	0.020	0.5000	0	96.5	85	115			
Manganese	0.48	0.0020	0.5000	0	95.9	85	115			
Silver	0.091	0.0050	0.1000	0	91.1	85	115			
Zinc	0.48	0.010	0.5000	0	95.5	85	115			

Sample ID **LLLCS-27574**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **27574**	RunNo: **37369**
Prep Date: **9/19/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161348** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	99.5	50	150			J
Cadmium	0.0015	0.0020	0.002000	0	76.5	50	150			J
Chromium	0.0069	0.0060	0.006000	0	115	50	150			
Copper	0.0060	0.0060	0.006000	0	100	50	150			
Iron	0.022	0.020	0.02000	0	112	50	150			
Manganese	0.0021	0.0020	0.002000	0	106	50	150			
Silver	0.0049	0.0050	0.005000	0	98.8	50	150			J
Zinc	0.0052	0.010	0.005000	0	104	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609451**

11-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID	**1609446-02AMSDLL**	SampType:	**MSD**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**BatchQC**	Batch ID:	**C37327**		RunNo:	**37327**				
Prep Date:		Analysis Date:	**9/20/2016**		SeqNo:	**1160730**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0.0001542	98.6	70	130	3.20	20	
Lead	0.013	0.00050	0.01250	0.0005561	99.9	70	130	0.672	20	
Selenium	0.026	0.0010	0.02500	0.001529	99.7	70	130	5.30	20	
Uranium	0.015	0.00050	0.01250	0.001591	103	70	130	0.746	20	

Sample ID	**LCS**	SampType:	**LCS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**LCSW**	Batch ID:	**C37327**		RunNo:	**37327**				
Prep Date:		Analysis Date:	**9/20/2016**		SeqNo:	**1160759**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	91.8	85	115			
Lead	0.012	0.00050	0.01250	0	95.4	85	115			
Selenium	0.023	0.0010	0.02500	0	92.7	85	115			
Uranium	0.012	0.00050	0.01250	0	96.1	85	115			

Sample ID	**LLLCS**	SampType:	**LCSLL**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**BatchQC**	Batch ID:	**C37327**		RunNo:	**37327**				
Prep Date:		Analysis Date:	**9/20/2016**		SeqNo:	**1160761**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00097	0.0010	0.001000	0	96.9	50	150			J
Lead	0.00051	0.00050	0.0005000	0	102	50	150			
Selenium	0.00094	0.0010	0.001000	0	93.5	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	98.8	50	150			J

Sample ID	**MB**	SampType:	**MBLK**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**PBW**	Batch ID:	**C37327**		RunNo:	**37327**				
Prep Date:		Analysis Date:	**9/20/2016**		SeqNo:	**1160763**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**LCS**	SampType:	**LCS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**LCSW**	Batch ID:	**A37386**		RunNo:	**37386**				
Prep Date:		Analysis Date:	**9/21/2016**		SeqNo:	**1162017**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609451**

11-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID	**LCS**	SampType: **LCS**			TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID: **A37386**			RunNo: **37386**					
Prep Date:		Analysis Date: **9/21/2016**			SeqNo: **1162017**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.024	0.0010	0.02500	0	97.7	85	115			

Sample ID	**LLLCS**	SampType: **LCSLL**			TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID: **A37386**			RunNo: **37386**					
Prep Date:		Analysis Date: **9/21/2016**			SeqNo: **1162020**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.0010	0.0010	0.001000	0	102	50	150			

Sample ID	**MB**	SampType: **MBLK**			TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**PBW**	Batch ID: **A37386**			RunNo: **37386**					
Prep Date:		Analysis Date: **9/21/2016**			SeqNo: **1162022**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609451**

11-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID	**MB-27574**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**27574**	RunNo:	**37355**					
Prep Date:	**9/19/2016**	Analysis Date:	**9/20/2016**	SeqNo:	**1160661**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-27574**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**27574**	RunNo:	**37355**					
Prep Date:	**9/19/2016**	Analysis Date:	**9/20/2016**	SeqNo:	**1160663**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.7	85	115			
Lead	0.012	0.00050	0.01250	0	97.8	85	115			
Selenium	0.024	0.0010	0.02500	0	96.0	85	115			
Uranium	0.012	0.00050	0.01250	0	99.9	85	115			

Sample ID	**MSLLLCS-27574**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**27574**	RunNo:	**37355**					
Prep Date:	**9/19/2016**	Analysis Date:	**9/20/2016**	SeqNo:	**1160665**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00095	0.0010	0.001000	0	95.2	50	150			J
Lead	0.00049	0.00050	0.0005000	0	97.8	50	150			J
Selenium	0.00091	0.0010	0.001000	0	91.2	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	98.0	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609451**

11-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID	**MB-27494**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**27494**	RunNo:	**37231**					
Prep Date:	**9/14/2016**	Analysis Date:	**9/15/2016**	SeqNo:	**1155489**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-27494**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**27494**	RunNo:	**37231**					
Prep Date:	**9/14/2016**	Analysis Date:	**9/15/2016**	SeqNo:	**1155490**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.4	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609451**

11-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A37143**	RunNo: **37143**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151882** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A37143**	RunNo: **37143**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151883** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	97.3	90	110			
Chloride	4.5	0.50	5.000	0	90.3	90	110			
Bromide	2.3	0.10	2.500	0	91.1	90	110			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	94.2	90	110			
Sulfate	9.1	0.50	10.00	0	91.0	90	110			

Sample ID **1609451-001DMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BW-2C**	Batch ID: **A37143**	RunNo: **37143**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151888** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.3	0.10	0.5000	1.850	86.5	74.5	121			
Bromide	2.5	0.10	2.500	0.09820	96.8	74.6	115			

Sample ID **1609451-001DMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BW-2C**	Batch ID: **A37143**	RunNo: **37143**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151889** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.3	0.10	0.5000	1.850	87.2	74.5	121	0.166	20	
Bromide	2.5	0.10	2.500	0.09820	96.9	74.6	115	0.155	20	

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R37294**	RunNo: **37294**
Prep Date:	Analysis Date: **9/17/2016**	SeqNo: **1157953** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1609451**
11-Oct-16

Client: Western Refining Southwest, Gallup
Project: 2016 Annual

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R37294**	RunNo: **37294**							
Prep Date:	Analysis Date: **9/17/2016**	SeqNo: **1157954**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.7	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609451**

11-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **LCS-27430**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **27430**	RunNo: **37116**
Prep Date: **9/12/2016**	Analysis Date: **9/12/2016**	SeqNo: **1151166** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.0	1.0	5.000	0	121	63.2	155			
Surr: DNOP	0.55		0.5000		111	77.1	144			

Sample ID **MB-27430**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **27430**	RunNo: **37116**
Prep Date: **9/12/2016**	Analysis Date: **9/12/2016**	SeqNo: **1151167** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		108	77.1	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609451**

11-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154193** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609451**

11-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154193** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.7	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	9.3		10.00		93.3	70	130			

Sample ID **100ng lcsb**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154194** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	113	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	19	1.0	20.00	0	95.8	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609451**

11-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **100ng lcsb**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154194** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21	1.0	20.00	0	106	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	106	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.0	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	9.6		10.00		95.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609451**

11-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154472** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.4		10.00		94.1	70	130			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154473** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.52	0.050	0.5000	0	105	75.4	118			
Surr: BFB	10		10.00		100	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1609451** RcptNo: **1**

Received by/date: AG 09/08/16

Logged By: **Ashley Gallegos** 9/8/2016 5:10:00 PM AG

Completed By: **Ashley Gallegos** 9/9/2016 12:17:48 PM AG

Reviewed By: JC 09/09/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 15 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? NO
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: aj

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address: **NOTE NEW ADDRESS**

92 GIANT CROSSING ROAD, GALLUP, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:

X Standard ☐ Rush_____

Project Name:

2016 ANNUAL

Project #:

BW WELLS

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609451	8260+MTBE	8015B	8270C + PHENOLS	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	Major Cations/Anions	CYANIDE	Air Bubbles (Y or N)
9/8/2016	1225	AQUEOUS	BW-2C			-001	X	X	X	X	X	X	X	
9/8/2016	940	AQUEOUS	BW-2A			-002	X	X	X	X	X	X	X	
9/8/2016	1006	AQUEOUS	BW-2B			-003	X	X	X	X	X	X	X	
9/8/2016	1355	AQUEOUS	BW-3B			-004	X	X	X	X	X	X	X	
9/8/2016	1330	AQUEOUS	BW-3C			-005	X	X	X	X	X	X	X	
			TRIP BLANK			-006	X							
			FIELD BLANK			-007	X							

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
9/8/16	1500			9/8/16	1500	
9/8/16	1710			09/08/16	1710	

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 21, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 Annual/Quarterly OrderNo.: 1609503

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 9/10/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-11
Project: 2016 Annual/Quarterly
Collection Date: 9/9/2016 2:35:00 PM
Lab ID: 1609503-001
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/12/2016 7:32:44 PM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 7:32:44 PM	27435
Surr: DNOP	138	0	77.1-144		%Rec	1	9/12/2016 7:32:44 PM	27435
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	1.6	0.050	0.10		mg/L	1	9/12/2016 9:31:24 PM	R37143
Chloride	100	1.0	10		mg/L	20	9/12/2016 9:43:48 PM	R37143
Bromide	0.33	0.044	0.10		mg/L	1	9/12/2016 9:31:24 PM	R37143
Phosphorus, Orthophosphate (As P)	ND	1.5	10	H	mg/L	20	9/12/2016 9:43:48 PM	R37143
Sulfate	900	2.8	10		mg/L	20	9/12/2016 9:43:48 PM	R37143
Nitrate+Nitrite as N	1.7	0.46	1.0		mg/L	5	9/17/2016 6:19:18 PM	R37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.0087	0.0013	0.0020		mg/L	1	9/29/2016 2:31:18 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 2:31:18 PM	E37552
Calcium	9.8	0.50	1.0		mg/L	1	9/29/2016 2:31:18 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 2:31:18 PM	E37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 2:31:18 PM	E37552
Iron	ND	0.020	0.020		mg/L	1	9/29/2016 2:31:18 PM	E37552
Magnesium	1.2	0.50	1.0		mg/L	1	9/29/2016 2:31:18 PM	E37552
Manganese	0.015	0.00032	0.0020		mg/L	1	9/29/2016 2:31:18 PM	E37552
Potassium	1.6	0.50	1.0		mg/L	1	9/29/2016 2:31:18 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 2:31:18 PM	E37552
Sodium	620	5.0	10		mg/L	10	9/29/2016 2:33:22 PM	E37552
Zinc	0.0091	0.0028	0.010	J	mg/L	1	9/29/2016 2:31:18 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.0080	0.00079	0.0020		mg/L	1	9/29/2016 12:53:15 PM	27675
Cadmium	ND	0.0015	0.0020		mg/L	1	9/29/2016 12:53:15 PM	27675
Chromium	ND	0.0027	0.0060		mg/L	1	9/29/2016 12:53:15 PM	27675
Copper	ND	0.0030	0.0060		mg/L	1	9/29/2016 12:53:15 PM	27675
Iron	ND	0.020	0.020		mg/L	1	9/29/2016 12:53:15 PM	27675
Manganese	0.016	0.00027	0.0020		mg/L	1	9/29/2016 12:53:15 PM	27675
Silver	ND	0.0015	0.0050		mg/L	1	10/13/2016 1:08:18 PM	28020
Zinc	ND	0.0027	0.010		mg/L	1	9/29/2016 12:53:15 PM	27675
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0021	0.00069	0.0050	J	mg/L	5	9/22/2016 8:40:18 PM	B37425
Lead	ND	0.00017	0.00050		mg/L	1	9/21/2016 10:16:24 PM	B37386
Selenium	0.0081	0.00021	0.0010		mg/L	1	9/21/2016 10:16:24 PM	B37386
Uranium	0.18	0.0010	0.010	*	mg/L	20	9/22/2016 8:55:43 PM	B37425

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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D	Sample Diluted Due to Matrix
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
R	RPD outside accepted recovery limits
RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix
W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-11
Project: 2016 Annual/Quarterly
Collection Date: 9/9/2016 2:35:00 PM
Lab ID: 1609503-001
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0023	0.0011	0.0050	J	mg/L	5	9/26/2016 4:58:55 PM	27675
Lead	ND	0.000081	0.00050		mg/L	1	9/26/2016 1:23:22 PM	27675
Selenium	0.0074	0.00094	0.0050		mg/L	5	9/26/2016 4:58:55 PM	27675
Uranium	0.18	0.0035	0.010	*	mg/L	20	9/26/2016 6:52:44 PM	27675
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000095	0.000053	0.00020	J	mg/L	1	9/20/2016 3:00:24 PM	27587
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Toluene	ND	0.12	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Naphthalene	ND	0.093	2.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Acetone	ND	4.9	10		µg/L	1	9/14/2016 6:12:22 PM	R37199
Bromobenzene	ND	0.098	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Bromoform	ND	0.10	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Bromomethane	ND	0.78	3.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
2-Butanone	ND	0.74	10		µg/L	1	9/14/2016 6:12:22 PM	R37199
Carbon disulfide	ND	0.60	10		µg/L	1	9/14/2016 6:12:22 PM	R37199
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Chloroethane	ND	0.19	2.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Chloroform	ND	0.089	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Chloromethane	ND	0.21	3.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Dibromomethane	ND	0.12	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-11
Project: 2016 Annual/Quarterly
Collection Date: 9/9/2016 2:35:00 PM
Lab ID: 1609503-001 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
2-Hexanone	ND	0.84	10		µg/L	1	9/14/2016 6:12:22 PM	R37199
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/14/2016 6:12:22 PM	R37199
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Styrene	ND	0.11	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/14/2016 6:12:22 PM	R37199
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/14/2016 6:12:22 PM	R37199
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	1	9/14/2016 6:12:22 PM	R37199
Surr: 4-Bromofluorobenzene	93.5	0	70-130		%Rec	1	9/14/2016 6:12:22 PM	R37199
Surr: Dibromofluoromethane	108	0	70-130		%Rec	1	9/14/2016 6:12:22 PM	R37199
Surr: Toluene-d8	93.7	0	70-130		%Rec	1	9/14/2016 6:12:22 PM	R37199
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-11
Project: 2016 Annual/Quarterly
Collection Date: 9/9/2016 2:35:00 PM
Lab ID: 1609503-001
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/14/2016 6:12:22 PM	G37199
Surr: BFB	93.2	0	70-130		%Rec	1	9/14/2016 6:12:22 PM	G37199

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609503**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **MB-E**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **E37552**	RunNo: **37552**
Prep Date:	Analysis Date: **9/29/2016**	SeqNo: **1169123** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-E**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **E37552**	RunNo: **37552**
Prep Date:	Analysis Date: **9/29/2016**	SeqNo: **1169127** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.9	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Calcium	50	1.0	50.00	0	99.5	85	115			
Chromium	0.49	0.0060	0.5000	0	98.0	85	115			
Copper	0.50	0.0060	0.5000	0	99.5	85	115			
Iron	0.50	0.020	0.5000	0	99.8	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Manganese	0.50	0.0020	0.5000	0	99.4	85	115			
Potassium	49	1.0	50.00	0	97.3	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	49	1.0	50.00	0	98.6	85	115			
Zinc	0.49	0.010	0.5000	0	97.6	85	115			

Sample ID **LLLCS-E**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **E37552**	RunNo: **37552**
Prep Date:	Analysis Date: **9/29/2016**	SeqNo: **1169128** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0018	0.0020	0.002000	0	91.0	50	150			J
Cadmium	0.0021	0.0020	0.002000	0	103	50	150			
Calcium	0.51	1.0	0.5000	0	102	50	150			J
Chromium	0.0064	0.0060	0.006000	0	107	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609503**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	**LLLCS-E**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Dissolved Metals**
Client ID:	**BatchQC**	Batch ID:	**E37552**	RunNo:	**37552**
Prep Date:		Analysis Date:	**9/29/2016**	SeqNo:	**1169128** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0081	0.0060	0.006000	0	135	50	150			
Iron	0.021	0.020	0.02000	0	106	50	150			
Magnesium	0.52	1.0	0.5000	0	105	50	150			J
Manganese	0.0020	0.0020	0.002000	0	101	50	150			
Potassium	0.53	1.0	0.5000	0	105	50	150			J
Silver	0.0050	0.0050	0.005000	0	100	50	150			
Sodium	0.50	1.0	0.5000	0	100	50	150			J
Zinc	0.0050	0.010	0.005000	0	101	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609503**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	**MB-27675**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**27675**	RunNo:	**37552**					
Prep Date:	**9/23/2016**	Analysis Date:	**9/29/2016**	SeqNo:	**1168528**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID	**LCS-27675**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID:	**27675**	RunNo:	**37552**					
Prep Date:	**9/23/2016**	Analysis Date:	**9/29/2016**	SeqNo:	**1168529**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	100	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	98.8	85	115			
Copper	0.50	0.0060	0.5000	0	100	85	115			
Iron	0.48	0.020	0.5000	0	95.6	85	115			
Manganese	0.50	0.0020	0.5000	0	99.1	85	115			
Zinc	0.49	0.010	0.5000	0	97.8	85	115			

Sample ID	**LLLCS-27675**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID:	**27675**	RunNo:	**37552**					
Prep Date:	**9/23/2016**	Analysis Date:	**9/29/2016**	SeqNo:	**1168530**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0015	0.0020	0.002000	0	74.5	50	150			J
Cadmium	0.0024	0.0020	0.002000	0	120	50	150			
Chromium	0.0057	0.0060	0.006000	0	94.7	50	150			J
Copper	0.0048	0.0060	0.006000	0	80.8	50	150			J
Manganese	0.0023	0.0020	0.002000	0	115	50	150			
Zinc	0.0054	0.010	0.005000	0	108	50	150			J

Sample ID	**LLLCS-27675**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID:	**27675**	RunNo:	**37552**					
Prep Date:	**9/23/2016**	Analysis Date:	**9/29/2016**	SeqNo:	**1168534**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.019	0.020	0.02000	0	92.7	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609503**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	**1609503-001EMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-11**	Batch ID:	**27675**		RunNo:	**37552**				
Prep Date:	**9/23/2016**	Analysis Date:	**9/29/2016**		SeqNo:	**1169153**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0.008030	101	70	130			
Cadmium	0.52	0.0020	0.5000	0	104	70	130			
Chromium	0.48	0.0060	0.5000	0	96.9	70	130			
Copper	0.54	0.0060	0.5000	0	107	70	130			
Iron	0.49	0.020	0.5000	0	98.9	70	130			
Manganese	0.52	0.0020	0.5000	0.01612	100	70	130			
Zinc	0.49	0.010	0.5000	0	98.7	70	130			

Sample ID	**1609503-001EMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-11**	Batch ID:	**27675**		RunNo:	**37552**				
Prep Date:	**9/23/2016**	Analysis Date:	**9/29/2016**		SeqNo:	**1169154**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0.008030	98.7	70	130	2.07	20	
Cadmium	0.52	0.0020	0.5000	0	103	70	130	0.576	20	
Chromium	0.48	0.0060	0.5000	0	96.1	70	130	0.846	20	
Copper	0.53	0.0060	0.5000	0	107	70	130	0.700	20	
Iron	0.50	0.020	0.5000	0	99.5	70	130	0.613	20	
Manganese	0.51	0.0020	0.5000	0.01612	98.9	70	130	1.10	20	
Zinc	0.49	0.010	0.5000	0	98.4	70	130	0.290	20	

Sample ID	**1609503-001EMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-11**	Batch ID:	**28020**		RunNo:	**37932**				
Prep Date:	**10/12/2016**	Analysis Date:	**10/13/2016**		SeqNo:	**1181980**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.092	0.0050	0.1000	0	92.3	70	130			

Sample ID	**1609503-001EMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-11**	Batch ID:	**28020**		RunNo:	**37932**				
Prep Date:	**10/12/2016**	Analysis Date:	**10/13/2016**		SeqNo:	**1181981**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.089	0.0050	0.1000	0	89.2	70	130	3.46	20	

Sample ID	**MB-28020**	SampType:	**MBLK**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**PBW**	Batch ID:	**28020**		RunNo:	**37932**				
Prep Date:	**10/12/2016**	Analysis Date:	**10/13/2016**		SeqNo:	**1182663**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609503**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	**MB-28020**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**28020**	RunNo:	**37932**					
Prep Date:	**10/12/2016**	Analysis Date:	**10/13/2016**	SeqNo:	**1182663**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID	**LCS-28020**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID:	**28020**	RunNo:	**37932**					
Prep Date:	**10/12/2016**	Analysis Date:	**10/13/2016**	SeqNo:	**1182664**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.096	0.0050	0.1000	0	95.6	85	115			

Sample ID	**LLLCS-28020**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID:	**28020**	RunNo:	**37932**					
Prep Date:	**10/12/2016**	Analysis Date:	**10/13/2016**	SeqNo:	**1182665**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.0042	0.0050	0.005000	0	85.0	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609503**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	**1609503-001DMSDL**	SampType:	**MSD**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**OW-11**	Batch ID:	**B37386**		RunNo:	**37386**				
Prep Date:		Analysis Date:	**9/21/2016**		SeqNo:	**1161970**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.013	0.00050	0.01250	0	105	70	130	0.738	20	
Selenium	0.033	0.0010	0.02500	0.008100	101	70	130	0.197	20	

Sample ID	**1609503-001DMSLL**	SampType:	**MS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**OW-11**	Batch ID:	**B37386**		RunNo:	**37386**				
Prep Date:		Analysis Date:	**9/21/2016**		SeqNo:	**1161971**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.013	0.00050	0.01250	0	106	70	130			
Selenium	0.033	0.0010	0.02500	0.008100	101	70	130			

Sample ID	**LCS**	SampType:	**LCS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**LCSW**	Batch ID:	**B37386**		RunNo:	**37386**				
Prep Date:		Analysis Date:	**9/21/2016**		SeqNo:	**1162018**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	97.0	85	115			
Selenium	0.025	0.0010	0.02500	0	99.9	85	115			

Sample ID	**LLLCS**	SampType:	**LCSLL**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**BatchQC**	Batch ID:	**B37386**		RunNo:	**37386**				
Prep Date:		Analysis Date:	**9/21/2016**		SeqNo:	**1162021**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00050	0.00050	0.0005000	0	100	50	150			
Selenium	0.00098	0.0010	0.001000	0	97.5	50	150			J

Sample ID	**MB**	SampType:	**MBLK**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**PBW**	Batch ID:	**B37386**		RunNo:	**37386**				
Prep Date:		Analysis Date:	**9/21/2016**		SeqNo:	**1162023**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Selenium	ND	0.0010								

Sample ID	**1609503-001DMSDL**	SampType:	**MSD**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**OW-11**	Batch ID:	**B37425**		RunNo:	**37425**				
Prep Date:		Analysis Date:	**9/22/2016**		SeqNo:	**1163294**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609503**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	**1609503-001DMSDL**	SampType:	**MSD**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**OW-11**	Batch ID:	**B37425**		RunNo:	**37425**				
Prep Date:		Analysis Date:	**9/22/2016**		SeqNo:	**1163294**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.12	0.0050	0.1250	0.002137	91.3	70	130	1.25	20	

Sample ID	**1609503-001DMSLL**	SampType:	**MS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**OW-11**	Batch ID:	**B37425**		RunNo:	**37425**				
Prep Date:		Analysis Date:	**9/22/2016**		SeqNo:	**1163295**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.12	0.0050	0.1250	0.002137	92.5	70	130			

Sample ID	**LCS**	SampType:	**LCS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**LCSW**	Batch ID:	**B37425**		RunNo:	**37425**				
Prep Date:		Analysis Date:	**9/22/2016**		SeqNo:	**1163315**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	90.1	85	115			
Uranium	0.011	0.00050	0.01250	0	90.9	85	115			

Sample ID	**LLLCS**	SampType:	**LCSLL**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**BatchQC**	Batch ID:	**B37425**		RunNo:	**37425**				
Prep Date:		Analysis Date:	**9/22/2016**		SeqNo:	**1163316**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00091	0.0010	0.001000	0	91.5	50	150			J
Uranium	0.00048	0.00050	0.0005000	0	95.7	50	150			J

Sample ID	**MB**	SampType:	**MBLK**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**PBW**	Batch ID:	**B37425**		RunNo:	**37425**				
Prep Date:		Analysis Date:	**9/22/2016**		SeqNo:	**1163317**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609503**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	**MB-27675**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**27675**	RunNo:	**37474**					
Prep Date:	**9/23/2016**	Analysis Date:	**9/26/2016**	SeqNo:	**1165266**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-27675**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**27675**	RunNo:	**37474**					
Prep Date:	**9/23/2016**	Analysis Date:	**9/26/2016**	SeqNo:	**1165268**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.0	85	115			
Lead	0.013	0.00050	0.01250	0	100	85	115			
Selenium	0.024	0.0010	0.02500	0	96.6	85	115			
Uranium	0.013	0.00050	0.01250	0	100	85	115			

Sample ID	**MSLLLCS-27675**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**27675**	RunNo:	**37474**					
Prep Date:	**9/23/2016**	Analysis Date:	**9/26/2016**	SeqNo:	**1165270**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00098	0.0010	0.001000	0	98.4	50	150			J
Lead	0.00053	0.00050	0.0005000	0	105	50	150			
Selenium	0.0010	0.0010	0.001000	0	101	50	150			
Uranium	0.00046	0.00050	0.0005000	0	91.8	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609503**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID	**MB-27587**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**27587**	RunNo:	**37346**					
Prep Date:	**9/19/2016**	Analysis Date:	**9/20/2016**	SeqNo:	**1160133**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000093	0.00020								J

Sample ID	**LCS-27587**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**27587**	RunNo:	**37346**					
Prep Date:	**9/19/2016**	Analysis Date:	**9/20/2016**	SeqNo:	**1160134**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	97.0	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609503**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R37143**	RunNo: **37143**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151827** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R37143**	RunNo: **37143**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151828** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.8	0.50	5.000	0	96.3	90	110			
Bromide	2.4	0.10	2.500	0	97.2	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	99.0	90	110			
Sulfate	9.8	0.50	10.00	0	97.8	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R37294**	RunNo: **37294**
Prep Date:	Analysis Date: **9/17/2016**	SeqNo: **1157953** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R37294**	RunNo: **37294**
Prep Date:	Analysis Date: **9/17/2016**	SeqNo: **1157954** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.7	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609503**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **LCS-27435**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **27435**	RunNo: **37115**
Prep Date: **9/12/2016**	Analysis Date: **9/12/2016**	SeqNo: **1151345** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.6	1.0	5.000	0	111	63.2	155			
Surr: DNOP	0.59		0.5000		119	77.1	144			

Sample ID **MB-27435**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **27435**	RunNo: **37115**
Prep Date: **9/12/2016**	Analysis Date: **9/12/2016**	SeqNo: **1151346** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.3		1.000		127	77.1	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609503**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154193** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609503**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154193** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.7	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	9.3		10.00		93.3	70	130			

Sample ID **100ng lcsb**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154194** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	113	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	19	1.0	20.00	0	95.8	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609503**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **100ng lcsb**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154194** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21	1.0	20.00	0	106	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	106	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.0	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	9.6		10.00		95.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609503**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual/Quarterly

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154472** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.4		10.00		94.1	70	130			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154473** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.52	0.050	0.5000	0	105	75.4	118			
Surr: BFB	10		10.00		100	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1609503 RcptNo: 1

Received by/date: RM 09/10/16

Logged By: Ashley Gallegos 9/10/2016 9:00:00 AM AG

Completed By: Ashley Gallegos 9/12/2016 9:45:05 AM AG

Reviewed By: AG/aJ

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 3 (<2 or >12 unless noted)

Adjusted? NO

Checked by: aJ

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: ____ Date: ____

By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: ____

Client Instructions: ____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	~~1.0~~ 3.0 JG	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING ROAD, GALLUP, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:

X Standard ☐ Rush_____

Project Name:

2016 ANNUAL/QUARTERLY

OW-11

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON

On Ice: ☑ Yes ☐ No

Sample Temperature: 3.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609503	8260+MTBE	8015D EXTENDED	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	Major Cations/Anions	Cyanide	8270 + Phenols									Air Bubbles (Y or N)
9/9/2016	1435	AQUEOUS	OW-11			-001	X	X	X	X	X											
	MJ																					

Date: 9/9/2016 Time: 1640 Relinquished by: [signature]

Received by: [signature] Date Time 9/9/2016 1640

Date: 9/10/16 Time: 0900 Relinquished by: [signature]

Received by: [signature] Date Time 09/10/16 0900

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 25, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 3RD QTR (OW) OrderNo.: 1609A26

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 9/18/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-55
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 10:15:00 AM
Lab ID: 1609A26-001
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	5.3	0.69	1.0		mg/L	1	9/20/2016 4:37:12 PM	27591
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/20/2016 4:37:12 PM	27591
Surr: DNOP	120	0	77.1-144		%Rec	1	9/20/2016 4:37:12 PM	27591
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.60	0.0013	0.0020		mg/L	1	10/13/2016 1:51:09 PM	C37932
Cadmium	ND	0.00075	0.0020		mg/L	1	10/13/2016 1:51:09 PM	C37932
Chromium	ND	0.0018	0.0060		mg/L	1	10/13/2016 1:51:09 PM	C37932
Copper	ND	0.0040	0.0060		mg/L	1	10/13/2016 1:51:09 PM	C37932
Iron	3.8	0.10	0.10	*	mg/L	5	10/13/2016 1:52:52 PM	C37932
Manganese	4.1	0.0016	0.010	*	mg/L	5	10/13/2016 1:52:52 PM	C37932
Silver	ND	0.0028	0.0050		mg/L	1	10/13/2016 1:51:09 PM	C37932
Zinc	0.0035	0.0028	0.010	J	mg/L	1	10/13/2016 1:51:09 PM	C37932
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	1.2	0.0040	0.010		mg/L	5	10/6/2016 5:44:15 PM	27884
Cadmium	ND	0.0015	0.0020		mg/L	1	10/5/2016 5:59:53 PM	27884
Chromium	0.0090	0.0027	0.0060		mg/L	1	10/5/2016 5:59:53 PM	27884
Copper	0.0094	0.0030	0.0060		mg/L	1	10/5/2016 5:59:53 PM	27884
Iron	13	0.40	0.40	*	mg/L	20	10/6/2016 5:51:54 PM	27884
Manganese	5.2	0.0055	0.040	*	mg/L	20	10/6/2016 5:51:54 PM	27884
Silver	ND	0.0015	0.0050		mg/L	1	10/6/2016 5:31:05 PM	27884
Zinc	0.066	0.0027	0.010		mg/L	1	10/5/2016 5:59:53 PM	27884
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0074	0.00014	0.0010		mg/L	1	9/30/2016 4:41:19 PM	C37623
Lead	0.00022	0.00017	0.00050	J	mg/L	1	9/30/2016 4:41:19 PM	C37623
Selenium	0.0082	0.00021	0.0010		mg/L	1	9/30/2016 4:41:19 PM	C37623
Uranium	0.0074	0.000051	0.00050		mg/L	1	9/30/2016 4:41:19 PM	C37623
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0078	0.0011	0.0050		mg/L	5	10/6/2016 6:07:55 PM	27884
Lead	0.024	0.000081	0.00050	*	mg/L	1	10/6/2016 5:52:48 PM	27884
Selenium	0.0038	0.00094	0.0050	J	mg/L	5	10/6/2016 6:07:55 PM	27884
Uranium	0.0094	0.00017	0.00050		mg/L	1	10/6/2016 5:52:48 PM	27884
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00011	0.000053	0.00020	J	mg/L	1	9/29/2016 1:28:58 PM	27776
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	12000	96	1000		µg/L	1000	9/22/2016 4:37:39 PM	W37409
Toluene	4600	120	1000		µg/L	1000	9/22/2016 4:37:39 PM	W37409

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-55
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 10:15:00 AM
Lab ID: 1609A26-001
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Ethylbenzene	950	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Methyl tert-butyl ether (MTBE)	1200	2.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2,4-Trimethylbenzene	880	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,3,5-Trimethylbenzene	280	1.2	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2-Dichloroethane (EDC)	5.6	1.2	10	J	µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Naphthalene	120	0.93	20		µg/L	10	9/21/2016 4:44:20 PM	R37365
1-Methylnaphthalene	30	2.0	40	J	µg/L	10	9/21/2016 4:44:20 PM	R37365
2-Methylnaphthalene	45	1.6	40		µg/L	10	9/21/2016 4:44:20 PM	R37365
Acetone	ND	49	100		µg/L	10	9/21/2016 4:44:20 PM	R37365
Bromobenzene	ND	0.98	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Bromodichloromethane	ND	1.4	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Bromoform	ND	1.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Bromomethane	ND	7.8	30		µg/L	10	9/21/2016 4:44:20 PM	R37365
2-Butanone	ND	7.4	100		µg/L	10	9/21/2016 4:44:20 PM	R37365
Carbon disulfide	ND	6.0	100		µg/L	10	9/21/2016 4:44:20 PM	R37365
Carbon Tetrachloride	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Chlorobenzene	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Chloroethane	ND	1.9	20		µg/L	10	9/21/2016 4:44:20 PM	R37365
Chloroform	ND	0.89	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Chloromethane	ND	2.1	30		µg/L	10	9/21/2016 4:44:20 PM	R37365
2-Chlorotoluene	ND	4.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
4-Chlorotoluene	ND	1.3	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
cis-1,2-DCE	ND	1.2	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	9/21/2016 4:44:20 PM	R37365
Dibromochloromethane	ND	0.87	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Dibromomethane	ND	1.2	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1-Dichloroethane	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1-Dichloroethene	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2-Dichloropropane	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,3-Dichloropropane	ND	1.6	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
2,2-Dichloropropane	ND	1.7	20		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1-Dichloropropene	ND	1.3	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Hexachlorobutadiene	ND	2.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-55
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 10:15:00 AM
Lab ID: 1609A26-001 **Matrix:** AQUEOUS **Received Date:** 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
2-Hexanone	ND	8.4	100		µg/L	10	9/21/2016 4:44:20 PM	R37365
Isopropylbenzene	35	1.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
4-Isopropyltoluene	5.9	1.4	10	J	µg/L	10	9/21/2016 4:44:20 PM	R37365
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	9/21/2016 4:44:20 PM	R37365
Methylene Chloride	ND	1.9	30		µg/L	10	9/21/2016 4:44:20 PM	R37365
n-Butylbenzene	17	1.6	30	J	µg/L	10	9/21/2016 4:44:20 PM	R37365
n-Propylbenzene	120	1.3	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
sec-Butylbenzene	9.3	1.2	10	J	µg/L	10	9/21/2016 4:44:20 PM	R37365
Styrene	4.1	1.1	10	J	µg/L	10	9/21/2016 4:44:20 PM	R37365
tert-Butylbenzene	ND	1.2	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	9/21/2016 4:44:20 PM	R37365
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
trans-1,2-DCE	ND	4.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1,1-Trichloroethane	ND	0.91	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Trichlorofluoromethane	ND	2.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	9/21/2016 4:44:20 PM	R37365
Vinyl chloride	ND	2.0	10		µg/L	10	9/21/2016 4:44:20 PM	R37365
Xylenes, Total	4500	370	1500		µg/L	1000	9/22/2016 4:37:39 PM	W37409
Surr: 1,2-Dichloroethane-d4	89.7	0	70-130		%Rec	10	9/21/2016 4:44:20 PM	R37365
Surr: 4-Bromofluorobenzene	77.6	0	70-130		%Rec	10	9/21/2016 4:44:20 PM	R37365
Surr: Dibromofluoromethane	82.8	0	70-130		%Rec	10	9/21/2016 4:44:20 PM	R37365
Surr: Toluene-d8	93.9	0	70-130		%Rec	10	9/21/2016 4:44:20 PM	R37365
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	76	0.15	0.50		mg/L	10	9/21/2016 4:44:20 PM	W37365
Surr: BFB	103	0	70-130		%Rec	10	9/21/2016 4:44:20 PM	W37365

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB091616
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 10:30:00 AM
Lab ID: 1609A26-002
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/20/2016 5:41:47 PM	27591
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/20/2016 5:41:47 PM	27591
Surr: DNOP	127	0	77.1-144		%Rec	1	9/20/2016 5:41:47 PM	27591
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	ND	0.0013	0.0020		mg/L	1	10/13/2016 1:54:57 PM	C37932
Cadmium	ND	0.00075	0.0020		mg/L	1	10/13/2016 1:54:57 PM	C37932
Chromium	ND	0.0018	0.0060		mg/L	1	10/13/2016 1:54:57 PM	C37932
Copper	ND	0.0040	0.0060		mg/L	1	10/13/2016 1:54:57 PM	C37932
Iron	ND	0.020	0.020		mg/L	1	10/13/2016 1:54:57 PM	C37932
Manganese	ND	0.00032	0.0020		mg/L	1	10/13/2016 1:54:57 PM	C37932
Silver	ND	0.0028	0.0050		mg/L	1	10/13/2016 1:54:57 PM	C37932
Zinc	ND	0.0028	0.010		mg/L	1	10/13/2016 1:54:57 PM	C37932
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	ND	0.00079	0.0020		mg/L	1	10/5/2016 6:05:27 PM	27884
Cadmium	ND	0.0015	0.0020		mg/L	1	10/5/2016 6:05:27 PM	27884
Chromium	ND	0.0027	0.0060		mg/L	1	10/5/2016 6:05:27 PM	27884
Copper	ND	0.0030	0.0060		mg/L	1	10/5/2016 6:05:27 PM	27884
Iron	ND	0.020	0.020		mg/L	1	10/5/2016 6:05:27 PM	27884
Manganese	ND	0.00027	0.0020		mg/L	1	10/5/2016 6:05:27 PM	27884
Silver	ND	0.0015	0.0050		mg/L	1	10/5/2016 6:05:27 PM	27884
Zinc	ND	0.0027	0.010		mg/L	1	10/5/2016 6:05:27 PM	27884
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	ND	0.00014	0.0010		mg/L	1	9/30/2016 4:44:23 PM	C37623
Lead	ND	0.00017	0.00050		mg/L	1	9/30/2016 4:44:23 PM	C37623
Selenium	ND	0.00021	0.0010		mg/L	1	9/30/2016 4:44:23 PM	C37623
Uranium	ND	0.000051	0.00050		mg/L	1	9/30/2016 4:44:23 PM	C37623
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.00021	0.0010		mg/L	1	10/6/2016 5:55:48 PM	27884
Lead	ND	0.000081	0.00050		mg/L	1	10/6/2016 5:55:48 PM	27884
Selenium	ND	0.00019	0.0010		mg/L	1	10/6/2016 5:55:48 PM	27884
Uranium	ND	0.00017	0.00050		mg/L	1	10/6/2016 5:55:48 PM	27884
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000097	0.000053	0.00020	J	mg/L	1	9/29/2016 1:31:03 PM	27776
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Toluene	0.37	0.12	1.0	J	µg/L	1	9/22/2016 11:20:14 AM	W37409

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB091616
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 10:30:00 AM
Lab ID: 1609A26-002
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Naphthalene	ND	0.093	2.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Acetone	7.6	4.9	10	J	µg/L	1	9/22/2016 11:20:14 AM	W37409
Bromobenzene	ND	0.098	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Bromoform	ND	0.10	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Bromomethane	ND	0.78	3.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
2-Butanone	0.91	0.74	10	J	µg/L	1	9/22/2016 11:20:14 AM	W37409
Carbon disulfide	ND	0.60	10		µg/L	1	9/22/2016 11:20:14 AM	W37409
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Chloroethane	ND	0.19	2.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Chloroform	ND	0.089	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Chloromethane	ND	0.21	3.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Dibromomethane	ND	0.12	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB091616
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 10:30:00 AM
Lab ID: 1609A26-002 **Matrix:** AQUEOUS **Received Date:** 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
2-Hexanone	ND	0.84	10		µg/L	1	9/22/2016 11:20:14 AM	W37409
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/22/2016 11:20:14 AM	W37409
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Styrene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/22/2016 11:20:14 AM	W37409
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/22/2016 11:20:14 AM	W37409
Surr: 1,2-Dichloroethane-d4	95.6	0	70-130		%Rec	1	9/22/2016 11:20:14 AM	W37409
Surr: 4-Bromofluorobenzene	100	0	70-130		%Rec	1	9/22/2016 11:20:14 AM	W37409
Surr: Dibromofluoromethane	104	0	70-130		%Rec	1	9/22/2016 11:20:14 AM	W37409
Surr: Toluene-d8	101	0	70-130		%Rec	1	9/22/2016 11:20:14 AM	W37409
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.037	0.015	0.050	J	mg/L	1	9/21/2016 5:13:07 PM	W37365
Surr: BFB	100	0	70-130		%Rec	1	9/21/2016 5:13:07 PM	W37365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-56
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 8:10:00 AM
Lab ID: 1609A26-003
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	0.77	0.69	1.0	J	mg/L	1	9/20/2016 6:03:27 PM	27591
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/20/2016 6:03:27 PM	27591
Surr: DNOP	128	0	77.1-144		%Rec	1	9/20/2016 6:03:27 PM	27591
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.36	0.0013	0.0020		mg/L	1	10/13/2016 1:58:42 PM	C37932
Cadmium	ND	0.00075	0.0020		mg/L	1	10/13/2016 1:58:42 PM	C37932
Chromium	ND	0.0018	0.0060		mg/L	1	10/13/2016 1:58:42 PM	C37932
Copper	0.0047	0.0040	0.0060	J	mg/L	1	10/13/2016 1:58:42 PM	C37932
Iron	0.078	0.020	0.020		mg/L	1	10/13/2016 1:58:42 PM	C37932
Manganese	0.39	0.00032	0.0020	*	mg/L	1	10/13/2016 1:58:42 PM	C37932
Silver	ND	0.0028	0.0050		mg/L	1	10/13/2016 1:58:42 PM	C37932
Zinc	0.011	0.0028	0.010		mg/L	1	10/13/2016 1:58:42 PM	C37932
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.37	0.00079	0.0020		mg/L	1	10/5/2016 6:11:17 PM	27884
Cadmium	ND	0.0015	0.0020		mg/L	1	10/5/2016 6:11:17 PM	27884
Chromium	ND	0.0027	0.0060		mg/L	1	10/5/2016 6:11:17 PM	27884
Copper	0.0049	0.0030	0.0060	J	mg/L	1	10/5/2016 6:11:17 PM	27884
Iron	0.33	0.020	0.020	*	mg/L	1	10/5/2016 6:11:17 PM	27884
Manganese	0.42	0.00027	0.0020	*	mg/L	1	10/5/2016 6:11:17 PM	27884
Silver	ND	0.0015	0.0050		mg/L	1	10/5/2016 6:11:17 PM	27884
Zinc	0.012	0.0027	0.010		mg/L	1	10/5/2016 6:11:17 PM	27884
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0049	0.00069	0.0050	J	mg/L	5	10/7/2016 6:19:29 PM	C37789
Lead	0.00046	0.00017	0.00050	J	mg/L	1	9/30/2016 4:53:38 PM	C37623
Selenium	0.0046	0.0042	0.020	J	mg/L	20	10/7/2016 6:22:33 PM	C37789
Uranium	0.023	0.000051	0.00050		mg/L	1	9/30/2016 4:53:38 PM	C37623
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0046	0.0021	0.010	J	mg/L	10	10/7/2016 11:02:58 AM	27884
Lead	0.0010	0.000081	0.00050		mg/L	1	10/6/2016 6:10:57 PM	27884
Selenium	0.0046	0.0019	0.010	J	mg/L	10	10/7/2016 11:02:58 AM	27884
Uranium	0.024	0.00087	0.0025		mg/L	5	10/7/2016 10:56:57 AM	27884
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00010	0.000053	0.00020	J	mg/L	1	9/29/2016 1:33:10 PM	27776
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	2.5	0.48	5.0	JD	µg/L	5	9/21/2016 6:39:35 PM	R37365
Toluene	0.92	0.59	5.0	JD	µg/L	5	9/21/2016 6:39:35 PM	R37365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-56
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 8:10:00 AM
Lab ID: 1609A26-003 **Matrix:** AQUEOUS **Received Date:** 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Ethylbenzene	ND	0.56	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Methyl tert-butyl ether (MTBE)	150	1.1	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2,4-Trimethylbenzene	1.1	0.55	5.0	JD	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,3,5-Trimethylbenzene	ND	0.58	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2-Dichloroethane (EDC)	16	0.58	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2-Dibromoethane (EDB)	ND	0.56	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Naphthalene	ND	0.46	10	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1-Methylnaphthalene	ND	1.0	20	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
2-Methylnaphthalene	ND	0.79	20	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Acetone	ND	25	50	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Bromobenzene	ND	0.49	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Bromodichloromethane	ND	0.70	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Bromoform	ND	0.51	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Bromomethane	ND	3.9	15	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
2-Butanone	ND	3.7	50	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Carbon disulfide	ND	3.0	50	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Carbon Tetrachloride	ND	0.54	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Chlorobenzene	ND	0.57	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Chloroethane	ND	0.96	10	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Chloroform	ND	0.44	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Chloromethane	ND	1.1	15	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
2-Chlorotoluene	ND	2.0	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
4-Chlorotoluene	ND	0.64	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
cis-1,2-DCE	ND	0.62	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
cis-1,3-Dichloropropene	ND	0.53	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2-Dibromo-3-chloropropane	ND	1.2	10	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Dibromochloromethane	ND	0.43	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Dibromomethane	ND	0.60	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2-Dichlorobenzene	ND	2.0	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,3-Dichlorobenzene	ND	0.72	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,4-Dichlorobenzene	ND	0.71	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Dichlorodifluoromethane	ND	1.8	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1-Dichloroethane	ND	0.54	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1-Dichloroethene	ND	0.54	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2-Dichloropropane	ND	0.55	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,3-Dichloropropane	ND	0.78	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
2,2-Dichloropropane	ND	0.83	10	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1-Dichloropropene	ND	0.67	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Hexachlorobutadiene	ND	0.99	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-56
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 8:10:00 AM
Lab ID: 1609A26-003
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
2-Hexanone	ND	4.2	50	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Isopropylbenzene	1.1	0.52	5.0	JD	µg/L	5	9/21/2016 6:39:35 PM	R37365
4-Isopropyltoluene	ND	0.70	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
4-Methyl-2-pentanone	ND	2.1	50	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Methylene Chloride	ND	0.94	15	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
n-Butylbenzene	ND	0.80	15	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
n-Propylbenzene	ND	0.66	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
sec-Butylbenzene	ND	0.62	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Styrene	ND	0.55	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
tert-Butylbenzene	ND	0.58	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1,1,2-Tetrachloroethane	ND	0.56	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1,2,2-Tetrachloroethane	ND	0.64	10	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Tetrachloroethene (PCE)	ND	0.76	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
trans-1,2-DCE	ND	2.0	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
trans-1,3-Dichloropropene	ND	0.52	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2,3-Trichlorobenzene	ND	0.56	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2,4-Trichlorobenzene	ND	0.66	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1,1-Trichloroethane	ND	0.46	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,1,2-Trichloroethane	ND	0.64	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Trichloroethene (TCE)	ND	0.88	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Trichlorofluoromethane	ND	1.0	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
1,2,3-Trichloropropane	ND	1.0	10	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Vinyl chloride	ND	0.98	5.0	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Xylenes, Total	ND	1.8	7.5	D	µg/L	5	9/21/2016 6:39:35 PM	R37365
Surr: 1,2-Dichloroethane-d4	94.5	0	70-130	D	%Rec	5	9/21/2016 6:39:35 PM	R37365
Surr: 4-Bromofluorobenzene	99.3	0	70-130	D	%Rec	5	9/21/2016 6:39:35 PM	R37365
Surr: Dibromofluoromethane	94.9	0	70-130	D	%Rec	5	9/21/2016 6:39:35 PM	R37365
Surr: Toluene-d8	97.1	0	70-130	D	%Rec	5	9/21/2016 6:39:35 PM	R37365
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	1.2	0.075	0.25		mg/L	5	9/21/2016 6:39:35 PM	W37365
Surr: BFB	99.3	0	70-130		%Rec	5	9/21/2016 6:39:35 PM	W37365

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-54
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 9:40:00 AM
Lab ID: 1609A26-004
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	1.6	0.69	1.0		mg/L	1	9/20/2016 6:25:00 PM	27591
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/20/2016 6:25:00 PM	27591
Surr: DNOP	124	0	77.1-144		%Rec	1	9/20/2016 6:25:00 PM	27591
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.14	0.0013	0.0020		mg/L	1	10/13/2016 2:02:44 PM	C37932
Cadmium	ND	0.00075	0.0020		mg/L	1	10/13/2016 2:02:44 PM	C37932
Chromium	ND	0.0018	0.0060		mg/L	1	10/13/2016 2:02:44 PM	C37932
Copper	0.0088	0.0040	0.0060		mg/L	1	10/13/2016 2:02:44 PM	C37932
Iron	0.23	0.020	0.020		mg/L	1	10/13/2016 2:02:44 PM	C37932
Manganese	1.3	0.0016	0.010	*	mg/L	5	10/13/2016 2:04:44 PM	C37932
Silver	ND	0.0028	0.0050		mg/L	1	10/13/2016 2:02:44 PM	C37932
Zinc	0.0035	0.0028	0.010	J	mg/L	1	10/13/2016 2:02:44 PM	C37932
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	1.1	0.0040	0.010		mg/L	5	10/6/2016 5:53:56 PM	27884
Cadmium	ND	0.0015	0.0020		mg/L	1	10/5/2016 6:18:57 PM	27884
Chromium	0.013	0.0027	0.0060		mg/L	1	10/5/2016 6:18:57 PM	27884
Copper	0.032	0.0030	0.0060		mg/L	1	10/5/2016 6:18:57 PM	27884
Iron	11	0.40	0.40	*	mg/L	20	10/6/2016 5:55:45 PM	27884
Manganese	2.3	0.0014	0.010	*	mg/L	5	10/6/2016 5:53:56 PM	27884
Silver	ND	0.0015	0.0050		mg/L	1	10/5/2016 6:18:57 PM	27884
Zinc	0.036	0.0027	0.010		mg/L	1	10/5/2016 6:18:57 PM	27884
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0049	0.00069	0.0050	J	mg/L	5	10/7/2016 6:25:36 PM	C37789
Lead	0.0052	0.00017	0.00050		mg/L	1	9/30/2016 4:56:41 PM	C37623
Selenium	0.0068	0.0042	0.020	J	mg/L	20	10/7/2016 6:28:40 PM	C37789
Uranium	0.062	0.00026	0.0025	*	mg/L	5	10/7/2016 6:25:36 PM	C37789
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0057	0.0021	0.010	J	mg/L	10	10/7/2016 11:21:05 AM	27884
Lead	0.032	0.00041	0.0025	*	mg/L	5	10/7/2016 11:05:59 AM	27884
Selenium	0.0063	0.0019	0.010	J	mg/L	10	10/7/2016 11:21:05 AM	27884
Uranium	0.065	0.00087	0.0025	*	mg/L	5	10/7/2016 11:05:59 AM	27884
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00013	0.000053	0.00020	J	mg/L	1	9/29/2016 1:35:16 PM	27776
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	100	0.48	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Toluene	8.0	0.59	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-54
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 9:40:00 AM
Lab ID: 1609A26-004 **Matrix:** AQUEOUS **Received Date:** 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Ethylbenzene	29	0.56	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Methyl tert-butyl ether (MTBE)	2000	11	50		µg/L	50	9/22/2016 5:06:24 PM	W37409
1,2,4-Trimethylbenzene	15	0.55	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,3,5-Trimethylbenzene	6.5	0.58	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Naphthalene	4.2	0.46	10	J	µg/L	5	9/21/2016 7:08:24 PM	R37365
1-Methylnaphthalene	ND	1.0	20		µg/L	5	9/21/2016 7:08:24 PM	R37365
2-Methylnaphthalene	ND	0.79	20		µg/L	5	9/21/2016 7:08:24 PM	R37365
Acetone	ND	25	50		µg/L	5	9/21/2016 7:08:24 PM	R37365
Bromobenzene	ND	0.49	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Bromodichloromethane	ND	0.70	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Bromoform	ND	0.51	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Bromomethane	ND	3.9	15		µg/L	5	9/21/2016 7:08:24 PM	R37365
2-Butanone	ND	3.7	50		µg/L	5	9/21/2016 7:08:24 PM	R37365
Carbon disulfide	ND	3.0	50		µg/L	5	9/21/2016 7:08:24 PM	R37365
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Chlorobenzene	ND	0.57	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Chloroethane	ND	0.96	10		µg/L	5	9/21/2016 7:08:24 PM	R37365
Chloroform	ND	0.44	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Chloromethane	ND	1.1	15		µg/L	5	9/21/2016 7:08:24 PM	R37365
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	9/21/2016 7:08:24 PM	R37365
Dibromochloromethane	ND	0.43	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Dibromomethane	ND	0.60	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
2,2-Dichloropropane	ND	0.83	10		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-54
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016 9:40:00 AM
Lab ID: 1609A26-004
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
2-Hexanone	ND	4.2	50		µg/L	5	9/21/2016 7:08:24 PM	R37365
Isopropylbenzene	1.2	0.52	5.0	J	µg/L	5	9/21/2016 7:08:24 PM	R37365
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	9/21/2016 7:08:24 PM	R37365
Methylene Chloride	ND	0.94	15		µg/L	5	9/21/2016 7:08:24 PM	R37365
n-Butylbenzene	ND	0.80	15		µg/L	5	9/21/2016 7:08:24 PM	R37365
n-Propylbenzene	3.7	0.66	5.0	J	µg/L	5	9/21/2016 7:08:24 PM	R37365
sec-Butylbenzene	1.7	0.62	5.0	J	µg/L	5	9/21/2016 7:08:24 PM	R37365
Styrene	ND	0.55	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	9/21/2016 7:08:24 PM	R37365
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	9/21/2016 7:08:24 PM	R37365
Vinyl chloride	ND	0.98	5.0		µg/L	5	9/21/2016 7:08:24 PM	R37365
Xylenes, Total	28	1.8	7.5		µg/L	5	9/21/2016 7:08:24 PM	R37365
Surr: 1,2-Dichloroethane-d4	89.8	0	70-130		%Rec	5	9/21/2016 7:08:24 PM	R37365
Surr: 4-Bromofluorobenzene	95.3	0	70-130		%Rec	5	9/21/2016 7:08:24 PM	R37365
Surr: Dibromofluoromethane	86.0	0	70-130		%Rec	5	9/21/2016 7:08:24 PM	R37365
Surr: Toluene-d8	98.4	0	70-130		%Rec	5	9/21/2016 7:08:24 PM	R37365
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	3.2	0.075	0.25		mg/L	5	9/21/2016 7:08:24 PM	W37365
Surr: BFB	100	0	70-130		%Rec	5	9/21/2016 7:08:24 PM	W37365

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP06
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016
Lab ID: 1609A26-005
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	1.7	0.69	1.0		mg/L	1	9/20/2016 6:46:40 PM	27591
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/20/2016 6:46:40 PM	27591
Surr: DNOP	129	0	77.1-144		%Rec	1	9/20/2016 6:46:40 PM	27591
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.14	0.0013	0.0020		mg/L	1	10/13/2016 2:12:36 PM	C37932
Cadmium	ND	0.00075	0.0020		mg/L	1	10/13/2016 2:12:36 PM	C37932
Chromium	ND	0.0018	0.0060		mg/L	1	10/13/2016 2:12:36 PM	C37932
Copper	0.0093	0.0040	0.0060		mg/L	1	10/13/2016 2:12:36 PM	C37932
Iron	0.24	0.020	0.020		mg/L	1	10/13/2016 2:12:36 PM	C37932
Manganese	1.4	0.0016	0.010	*	mg/L	5	10/13/2016 2:14:41 PM	C37932
Silver	ND	0.0028	0.0050		mg/L	1	10/13/2016 2:12:36 PM	C37932
Zinc	0.0035	0.0028	0.010	J	mg/L	1	10/13/2016 2:12:36 PM	C37932
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	1.3	0.0040	0.010		mg/L	5	10/6/2016 5:57:44 PM	27884
Cadmium	ND	0.0015	0.0020		mg/L	1	10/5/2016 6:20:48 PM	27884
Chromium	0.017	0.0027	0.0060		mg/L	1	10/5/2016 6:20:48 PM	27884
Copper	0.036	0.0030	0.0060		mg/L	1	10/5/2016 6:20:48 PM	27884
Iron	14	0.40	0.40	*	mg/L	20	10/6/2016 6:05:16 PM	27884
Manganese	2.4	0.0014	0.010	*	mg/L	5	10/6/2016 5:57:44 PM	27884
Silver	ND	0.0015	0.0050		mg/L	1	10/5/2016 6:20:48 PM	27884
Zinc	0.039	0.0027	0.010		mg/L	1	10/5/2016 6:20:48 PM	27884
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0049	0.00069	0.0050	J	mg/L	5	10/7/2016 6:31:43 PM	C37789
Lead	0.0053	0.00017	0.00050		mg/L	1	9/30/2016 4:59:45 PM	C37623
Selenium	0.0083	0.0042	0.020	J	mg/L	20	10/7/2016 6:40:58 PM	C37789
Uranium	0.063	0.00026	0.0025	*	mg/L	5	10/7/2016 6:31:43 PM	C37789
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0058	0.0021	0.010	J	mg/L	10	10/7/2016 11:27:06 AM	27884
Lead	0.036	0.00041	0.0025	*	mg/L	5	10/7/2016 11:24:06 AM	27884
Selenium	0.0070	0.0019	0.010	J	mg/L	10	10/7/2016 11:27:06 AM	27884
Uranium	0.066	0.00087	0.0025	*	mg/L	5	10/7/2016 11:24:06 AM	27884
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00013	0.000053	0.00020	J	mg/L	1	9/29/2016 1:37:23 PM	27776
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	110	0.96	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Toluene	9.8	1.2	10	J	µg/L	10	9/21/2016 7:37:10 PM	R37365

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP06
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016
Lab ID: 1609A26-005
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Ethylbenzene	29	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Methyl tert-butyl ether (MTBE)	1900	21	100		µg/L	100	9/22/2016 5:35:14 PM	W37409
1,2,4-Trimethylbenzene	14	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,3,5-Trimethylbenzene	7.1	1.2	10	J	µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2-Dichloroethane (EDC)	ND	1.2	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Naphthalene	5.5	0.93	20	J	µg/L	10	9/21/2016 7:37:10 PM	R37365
1-Methylnaphthalene	ND	2.0	40		µg/L	10	9/21/2016 7:37:10 PM	R37365
2-Methylnaphthalene	ND	1.6	40		µg/L	10	9/21/2016 7:37:10 PM	R37365
Acetone	ND	49	100		µg/L	10	9/21/2016 7:37:10 PM	R37365
Bromobenzene	ND	0.98	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Bromodichloromethane	ND	1.4	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Bromoform	ND	1.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Bromomethane	ND	7.8	30		µg/L	10	9/21/2016 7:37:10 PM	R37365
2-Butanone	ND	7.4	100		µg/L	10	9/21/2016 7:37:10 PM	R37365
Carbon disulfide	ND	6.0	100		µg/L	10	9/21/2016 7:37:10 PM	R37365
Carbon Tetrachloride	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Chlorobenzene	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Chloroethane	ND	1.9	20		µg/L	10	9/21/2016 7:37:10 PM	R37365
Chloroform	ND	0.89	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Chloromethane	ND	2.1	30		µg/L	10	9/21/2016 7:37:10 PM	R37365
2-Chlorotoluene	ND	4.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
4-Chlorotoluene	ND	1.3	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
cis-1,2-DCE	ND	1.2	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	9/21/2016 7:37:10 PM	R37365
Dibromochloromethane	ND	0.87	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Dibromomethane	ND	1.2	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1-Dichloroethane	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1-Dichloroethene	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2-Dichloropropane	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,3-Dichloropropane	ND	1.6	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
2,2-Dichloropropane	ND	1.7	20		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1-Dichloropropene	ND	1.3	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Hexachlorobutadiene	ND	2.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP06
Project: 2016 3RD QTR (OW)
Collection Date: 9/16/2016
Lab ID: 1609A26-005
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
2-Hexanone	ND	8.4	100		µg/L	10	9/21/2016 7:37:10 PM	R37365
Isopropylbenzene	1.6	1.0	10	J	µg/L	10	9/21/2016 7:37:10 PM	R37365
4-Isopropyltoluene	ND	1.4	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	9/21/2016 7:37:10 PM	R37365
Methylene Chloride	ND	1.9	30		µg/L	10	9/21/2016 7:37:10 PM	R37365
n-Butylbenzene	ND	1.6	30		µg/L	10	9/21/2016 7:37:10 PM	R37365
n-Propylbenzene	3.8	1.3	10	J	µg/L	10	9/21/2016 7:37:10 PM	R37365
sec-Butylbenzene	2.6	1.2	10	J	µg/L	10	9/21/2016 7:37:10 PM	R37365
Styrene	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
tert-Butylbenzene	ND	1.2	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	9/21/2016 7:37:10 PM	R37365
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
trans-1,2-DCE	ND	4.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1,1-Trichloroethane	ND	0.91	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Trichlorofluoromethane	ND	2.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	9/21/2016 7:37:10 PM	R37365
Vinyl chloride	ND	2.0	10		µg/L	10	9/21/2016 7:37:10 PM	R37365
Xylenes, Total	31	3.7	15		µg/L	10	9/21/2016 7:37:10 PM	R37365
Surr: 1,2-Dichloroethane-d4	96.5	0	70-130		%Rec	10	9/21/2016 7:37:10 PM	R37365
Surr: 4-Bromofluorobenzene	95.4	0	70-130		%Rec	10	9/21/2016 7:37:10 PM	R37365
Surr: Dibromofluoromethane	90.5	0	70-130		%Rec	10	9/21/2016 7:37:10 PM	R37365
Surr: Toluene-d8	99.1	0	70-130		%Rec	10	9/21/2016 7:37:10 PM	R37365
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	3.4	0.15	0.50		mg/L	10	9/21/2016 7:37:10 PM	W37365
Surr: BFB	101	0	70-130		%Rec	10	9/21/2016 7:37:10 PM	W37365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 3RD QTR (OW)
Collection Date:
Lab ID: 1609A26-006
Matrix: AQUEOUS
Received Date: 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Toluene	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Naphthalene	ND	0.093	2.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Acetone	ND	4.9	10		µg/L	1	9/21/2016 8:05:54 PM	R37365
Bromobenzene	ND	0.098	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Bromoform	ND	0.10	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Bromomethane	ND	0.78	3.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
2-Butanone	ND	0.74	10		µg/L	1	9/21/2016 8:05:54 PM	R37365
Carbon disulfide	ND	0.60	10		µg/L	1	9/21/2016 8:05:54 PM	R37365
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Chloroethane	ND	0.19	2.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Chloroform	ND	0.089	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Chloromethane	ND	0.21	3.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Dibromomethane	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/21/2016 8:05:54 PM	R37365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 3RD QTR (OW)
Collection Date:
Lab ID: 1609A26-006 **Matrix:** AQUEOUS **Received Date:** 9/18/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
2-Hexanone	ND	0.84	10		µg/L	1	9/21/2016 8:05:54 PM	R37365
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/21/2016 8:05:54 PM	R37365
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Styrene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/21/2016 8:05:54 PM	R37365
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/21/2016 8:05:54 PM	R37365
Surr: 1,2-Dichloroethane-d4	96.9	0	70-130		%Rec	1	9/21/2016 8:05:54 PM	R37365
Surr: 4-Bromofluorobenzene	94.4	0	70-130		%Rec	1	9/21/2016 8:05:54 PM	R37365
Surr: Dibromofluoromethane	96.8	0	70-130		%Rec	1	9/21/2016 8:05:54 PM	R37365
Surr: Toluene-d8	99.8	0	70-130		%Rec	1	9/21/2016 8:05:54 PM	R37365
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/21/2016 8:05:54 PM	W37365
Surr: BFB	96.8	0	70-130		%Rec	1	9/21/2016 8:05:54 PM	W37365

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **MB-C**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C37932**	RunNo: **37932**
Prep Date:	Analysis Date: **10/13/2016**	SeqNo: **1181916** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C37932**	RunNo: **37932**
Prep Date:	Analysis Date: **10/13/2016**	SeqNo: **1181917** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0023	0.0020	0.002000	0	116	50	150			
Cadmium	0.0020	0.0020	0.002000	0	102	50	150			
Chromium	0.0056	0.0060	0.006000	0	93.2	50	150			J
Manganese	0.0018	0.0020	0.002000	0	92.0	50	150			J
Silver	0.0046	0.0050	0.005000	0	91.4	50	150			J
Zinc	0.0051	0.010	0.005000	0	102	50	150			J

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C37932**	RunNo: **37932**
Prep Date:	Analysis Date: **10/13/2016**	SeqNo: **1181921** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.4	85	115			
Cadmium	0.49	0.0020	0.5000	0	97.6	85	115			
Chromium	0.48	0.0060	0.5000	0	95.2	85	115			
Copper	0.49	0.0060	0.5000	0	97.3	85	115			
Iron	0.48	0.020	0.5000	0	96.6	85	115			
Manganese	0.47	0.0020	0.5000	0	93.2	85	115			
Silver	0.093	0.0050	0.1000	0	93.1	85	115			
Zinc	0.46	0.010	0.5000	0	92.5	85	115			

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C37932**	RunNo: **37932**
Prep Date:	Analysis Date: **10/13/2016**	SeqNo: **1181938** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C37932**	RunNo: **37932**
Prep Date:	Analysis Date: **10/13/2016**	SeqNo: **1181938** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0086	0.0060	0.006000	0	143	50	150			
Iron	0.017	0.020	0.02000	0	84.8	50	150			J

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **MB-27884**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **27884**	RunNo: **37699**
Prep Date: **10/4/2016**	Analysis Date: **10/5/2016**	SeqNo: **1174527** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-27884**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **27884**	RunNo: **37699**
Prep Date: **10/4/2016**	Analysis Date: **10/5/2016**	SeqNo: **1174528** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.0020	0.5000	0	94.6	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.3	85	115			
Chromium	0.47	0.0060	0.5000	0	94.7	85	115			
Copper	0.47	0.0060	0.5000	0	93.9	85	115			
Iron	0.47	0.020	0.5000	0	93.3	85	115			
Manganese	0.46	0.0020	0.5000	0	92.7	85	115			
Silver	0.096	0.0050	0.1000	0	95.6	85	115			
Zinc	0.47	0.010	0.5000	0	94.5	85	115			

Sample ID **LLLCS-27884**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **27884**	RunNo: **37699**
Prep Date: **10/4/2016**	Analysis Date: **10/5/2016**	SeqNo: **1174529** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0015	0.0020	0.002000	0	77.0	50	150			J
Cadmium	0.0016	0.0020	0.002000	0	82.5	50	150			J
Chromium	0.0056	0.0060	0.006000	0	93.3	50	150			J
Copper	0.0063	0.0060	0.006000	0	105	50	150			
Manganese	0.0019	0.0020	0.002000	0	95.5	50	150			J
Silver	0.0042	0.0050	0.005000	0	83.4	50	150			J
Zinc	0.0050	0.010	0.005000	0	100	50	150			J

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	**LLLCS-27884**	SampType: **LCSLL**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID: **27884**		RunNo: **37699**					
Prep Date:	**10/4/2016**	Analysis Date: **10/5/2016**		SeqNo: **1174530**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.021	0.020	0.02000	0	104	50	150			

Sample ID	**1609A26-001DMS**	SampType: **MS**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**OW-55**	Batch ID: **27884**		RunNo: **37699**					
Prep Date:	**10/4/2016**	Analysis Date: **10/5/2016**		SeqNo: **1174650**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.49	0.0020	0.5000	0	97.9	70	130			
Chromium	0.48	0.0060	0.5000	0.008990	94.8	70	130			
Copper	0.50	0.0060	0.5000	0.009430	97.2	70	130			
Zinc	0.50	0.010	0.5000	0.06576	86.3	70	130			

Sample ID	**1609A26-001DMSD**	SampType: **MSD**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**OW-55**	Batch ID: **27884**		RunNo: **37699**					
Prep Date:	**10/4/2016**	Analysis Date: **10/5/2016**		SeqNo: **1174651**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.49	0.0020	0.5000	0	98.1	70	130	0.261	20	
Chromium	0.48	0.0060	0.5000	0.008990	94.6	70	130	0.215	20	
Copper	0.50	0.0060	0.5000	0.009430	97.3	70	130	0.149	20	
Zinc	0.50	0.010	0.5000	0.06576	85.9	70	130	0.385	20	

Sample ID	**1609A26-002DMS**	SampType: **MS**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**FB091616**	Batch ID: **27884**		RunNo: **37699**					
Prep Date:	**10/4/2016**	Analysis Date: **10/5/2016**		SeqNo: **1174653**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.2	70	130			
Cadmium	0.49	0.0020	0.5000	0	98.3	70	130			
Chromium	0.48	0.0060	0.5000	0	95.8	70	130			
Copper	0.47	0.0060	0.5000	0	93.5	70	130			
Iron	0.48	0.020	0.5000	0	96.4	70	130			
Manganese	0.47	0.0020	0.5000	0	94.0	70	130			
Silver	0.099	0.0050	0.1000	0	99.1	70	130			
Zinc	0.49	0.010	0.5000	0	97.2	70	130			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	**1609A26-002DMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**FB091616**	Batch ID:	**27884**		RunNo:	**37699**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/5/2016**		SeqNo:	**1174654**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.4	70	130	0.193	20	
Cadmium	0.50	0.0020	0.5000	0	99.4	70	130	1.11	20	
Chromium	0.48	0.0060	0.5000	0	96.7	70	130	0.983	20	
Copper	0.47	0.0060	0.5000	0	93.6	70	130	0.118	20	
Iron	0.47	0.020	0.5000	0	94.5	70	130	1.97	20	
Manganese	0.47	0.0020	0.5000	0	94.4	70	130	0.425	20	
Silver	0.10	0.0050	0.1000	0	99.6	70	130	0.473	20	
Zinc	0.49	0.010	0.5000	0	97.1	70	130	0.0988	20	

Sample ID	**1609A26-001DMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-55**	Batch ID:	**27884**		RunNo:	**37749**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/6/2016**		SeqNo:	**1176009**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.036	0.0050	0.1000	0	36.1	70	130			S

Sample ID	**1609A26-001DMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-55**	Batch ID:	**27884**		RunNo:	**37749**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/6/2016**		SeqNo:	**1176013**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.034	0.0050	0.1000	0	33.8	70	130	6.64	20	S

Sample ID	**1609A26-001DMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-55**	Batch ID:	**27884**		RunNo:	**37749**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/6/2016**		SeqNo:	**1176016**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.7	0.010	0.5000	1.221	100	70	130			

Sample ID	**1609A26-001DMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-55**	Batch ID:	**27884**		RunNo:	**37749**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/6/2016**		SeqNo:	**1176017**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.7	0.010	0.5000	1.221	95.9	70	130	1.19	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C37623**	RunNo: **37623**
Prep Date:	Analysis Date: **9/30/2016**	SeqNo: **1171239** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	93.4	85	115			
Lead	0.012	0.00050	0.01250	0	94.9	85	115			
Selenium	0.024	0.0010	0.02500	0	94.0	85	115			
Uranium	0.012	0.00050	0.01250	0	93.6	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C37623**	RunNo: **37623**
Prep Date:	Analysis Date: **9/30/2016**	SeqNo: **1171246** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	100	50	150			
Lead	0.00050	0.00050	0.0005000	0	100	50	150			
Selenium	0.0011	0.0010	0.001000	0	107	50	150			
Uranium	0.00049	0.00050	0.0005000	0	97.0	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C37623**	RunNo: **37623**
Prep Date:	Analysis Date: **9/30/2016**	SeqNo: **1171252** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C37789**	RunNo: **37789**
Prep Date:	Analysis Date: **10/7/2016**	SeqNo: **1177742** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	110	50	150			
Selenium	0.0011	0.0010	0.001000	0	110	50	150			
Uranium	0.00051	0.00050	0.0005000	0	103	50	150			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C37789**	RunNo: **37789**
Prep Date:	Analysis Date: **10/7/2016**	SeqNo: **1177744** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C37789**	RunNo: **37789**
Prep Date:	Analysis Date: **10/7/2016**	SeqNo: **1177744** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	**1609A26-003DMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**OW-56**	Batch ID:	**27884**		RunNo:	**37763**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/6/2016**		SeqNo:	**1176367**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.015	0.00050	0.01250	0.001040	113	70	130			

Sample ID	**MB-27884**	SampType:	**MBLK**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**PBW**	Batch ID:	**27884**		RunNo:	**37763**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/6/2016**		SeqNo:	**1176393**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-27884**	SampType:	**LCS**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**LCSW**	Batch ID:	**27884**		RunNo:	**37763**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/6/2016**		SeqNo:	**1176395**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.8	85	115			
Lead	0.013	0.00050	0.01250	0	104	85	115			
Selenium	0.024	0.0010	0.02500	0	97.4	85	115			
Uranium	0.013	0.00050	0.01250	0	102	85	115			

Sample ID	**MSLLLCS-27884**	SampType:	**LCSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**BatchQC**	Batch ID:	**27884**		RunNo:	**37763**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/6/2016**		SeqNo:	**1176397**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	104	50	150			
Lead	0.00052	0.00050	0.0005000	0	105	50	150			
Selenium	0.00089	0.0010	0.001000	0	89.5	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	98.8	50	150			J

Sample ID	**1609A26-003DMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**OW-56**	Batch ID:	**27884**		RunNo:	**37781**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/7/2016**		SeqNo:	**1176920**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.038	0.0025	0.01250	0.02415	107	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	**1609A26-004DMSDL**	SampType:	**MSDLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**OW-54**	Batch ID:	**27884**		RunNo:	**37781**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/7/2016**		SeqNo:	**1176923**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.046	0.0025	0.01250	0.03164	115	70	130	1.71	20	
Uranium	0.081	0.0025	0.01250	0.06456	128	70	130	2.00	20	

Sample ID	**1609A26-004DMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**OW-54**	Batch ID:	**27884**		RunNo:	**37781**				
Prep Date:	**10/4/2016**	Analysis Date:	**10/7/2016**		SeqNo:	**1176924**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.047	0.0025	0.01250	0.03164	121	70	130			
Uranium	0.082	0.0025	0.01250	0.06456	141	70	130			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID	**MB-27776**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**27776**	RunNo:	**37570**					
Prep Date:	**9/28/2016**	Analysis Date:	**9/29/2016**	SeqNo:	**1168946**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00011	0.00020								J

Sample ID	**LCS-27776**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**27776**	RunNo:	**37570**					
Prep Date:	**9/28/2016**	Analysis Date:	**9/29/2016**	SeqNo:	**1168947**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0047	0.00020	0.005000	0	94.2	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **1609A26-001CMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **OW-55**	Batch ID: **27591**	RunNo: **37320**
Prep Date: **9/20/2016**	Analysis Date: **9/20/2016**	SeqNo: **1159804** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	9.9	1.0	5.000	5.350	91.4	79.6	148			
Surr: DNOP	0.58		0.5000		116	77.1	144			

Sample ID **1609A26-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **OW-55**	Batch ID: **27591**	RunNo: **37320**
Prep Date: **9/20/2016**	Analysis Date: **9/20/2016**	SeqNo: **1159805** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	10	1.0	5.000	5.350	101	79.6	148	4.76	20	
Surr: DNOP	0.61		0.5000		122	77.1	144	0	0	

Sample ID **LCS-27591**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **27591**	RunNo: **37320**
Prep Date: **9/20/2016**	Analysis Date: **9/20/2016**	SeqNo: **1159822** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.3	1.0	5.000	0	106	63.2	155			
Surr: DNOP	0.57		0.5000		114	77.1	144			

Sample ID **MB-27591**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **27591**	RunNo: **37320**
Prep Date: **9/20/2016**	Analysis Date: **9/20/2016**	SeqNo: **1159826** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		116	77.1	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R37365**	RunNo: **37365**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1160915** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	70	130			
Toluene	19	1.0	20.00	0	92.7	70	130			
Chlorobenzene	19	1.0	20.00	0	94.9	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	92.5	70	130			
Trichloroethene (TCE)	16	1.0	20.00	0	81.3	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.0	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.7	70	130			
Surr: Toluene-d8	9.8		10.00		98.0	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37365**	RunNo: **37365**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1160916** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37365**	RunNo: **37365**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1160916** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37365**	RunNo: **37365**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1160916** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.1	70	130			
Surr: Dibromofluoromethane	10		10.00		99.6	70	130			
Surr: Toluene-d8	9.7		10.00		97.5	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **W37409**	RunNo: **37409**
Prep Date:	Analysis Date: **9/22/2016**	SeqNo: **1162560** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	107	70	130			
Toluene	19	1.0	20.00	0	95.8	70	130			
Chlorobenzene	19	1.0	20.00	0	95.6	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	96.4	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	87.4	70	130			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.8		10.00		97.7	70	130			
Surr: Toluene-d8	9.7		10.00		97.5	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **W37409**	RunNo: **37409**
Prep Date:	Analysis Date: **9/22/2016**	SeqNo: **1162561** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **W37409**	RunNo: **37409**
Prep Date:	Analysis Date: **9/22/2016**	SeqNo: **1162561** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **W37409**	RunNo: **37409**
Prep Date:	Analysis Date: **9/22/2016**	SeqNo: **1162561** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.1	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.9	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.6	70	130			
Surr: Toluene-d8	9.5		10.00		95.2	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609A26**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (OW)

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **W37365**	RunNo: **37365**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1161683** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	95.2	75.4	118			
Surr: BFB	10		10.00		100	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **W37365**	RunNo: **37365**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1161684** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.019	0.050								J
Surr: BFB	9.7		10.00		97.3	70	130			

Sample ID **1609A26-002BMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **FB091616**	Batch ID: **W37365**	RunNo: **37365**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1161687** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.45	0.050	0.5000	0.03720	82.6	53.8	128			
Surr: BFB	9.9		10.00		99.1	70	130			

Sample ID **1609A26-002BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **FB091616**	Batch ID: **W37365**	RunNo: **37365**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1161688** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.44	0.050	0.5000	0.03720	79.7	53.8	128	3.34	20	
Surr: BFB	10		10.00		103	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1609A26** RcptNo: **1**

Received by/date: AF 09/16/16

Logged By: **Anne Thorne** 9/18/2016 2:00:00 PM Anne Thorne

Completed By: **Anne Thorne** 9/19/2016 Anne Thorne

Reviewed By: aJ 09/19/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	JC
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☑ 09/19/16	
9. Was preservative added to bottles?	Yes ☑	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 10 (<2 or >12 unless noted)

Adjusted? yes

Checked by: JC

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:
For metals analysis: added 1mL to -004D and -005D for acceptable pH 09/19/16 @ 1535 JC

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP NM, 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2016 3RD QTR (OW)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 2 / 1°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609A26	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	WQCC METALS (TOTAL & DISSOLVED)				Air Bubbles (Y or N)
9/16/16	1015	WATER	OW-55	40 mL VOA-6	HCL	-001			✓							✓						
				250 mL AMBER-1	NEAT	-001			✓													
				500 mL PLASTIC-1	HNO_3	-001												✓				
				125 mL PLASTIC-1	HNO_3	-001												✓				
				500 mL PLASTIC-1	NEAT	-001												✓				
	1030		FB091616	40 mL VOA-6	HCL	-002			✓							✓						
				250 mL AMBER-1	NEAT	-002			✓													
				500 mL PLASTIC-1	HNO_3	-002												✓				
				125 mL PLASTIC-1	HNO_3	-002												✓				
				500 mL PLASTIC-1	NEAT	-002												✓				

Date: 9/16/16 Time: 1400 Relinquished by:
Date: Time: Relinquished by:

Received by: Date: 9/16/16 Time: 1408
Received by: Date: Time:

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC. GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING RD GALLUP, NM 87301

Phone #: 505-722-0231

email or Fax#: CHERYL.JOHNSON@WNR.COM

QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)

Accreditation: ☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: 2016 3RD QTR (OW)

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.1

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609A26	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	WQCC METALS (TOTAL & DISSOLVED)				Air Bubbles (Y or N)
9/16	0810	WATER	OW-56	40 mL VOA-6	HCL	-003			✓							✓						
				250 mL AMBER-1	NEAT	-003			✓													
				500 mL PLASTIC-1	HNO_3	-003												✓				
				125 mL PLASTIC-1	HNO_3	-003												✓				
				500 mL PLASTIC-1	NEAT	-003												✓				
	0940		OW-54	40 mL VOA-6	HCL	-004			✓							✓						
				250 mL AMBER-	NEAT	-004			✓													
				500 mL PLASTIC-1	HNO_3	-004												✓				
				125 mL PLASTIC-1	HNO_3	-004												✓				
				500 mL PLASTIC-1	NEAT	-004												✓				

Date:	Time:	Relinquished by:	Received by:	Date	Time
9/16	1400			9/16/16	1400
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
[ ] EDD (Type)

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 3RD QTR (OW)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 2.1

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Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609A26
9/16/16	—	WATER	DUP06	40 ML VOA-6	HCL	005
				250 ML AMBER	NEAT	005
				500 ML PLASTIC-1	HNO_3	005
				125 ML PLASTIC-1	HNO_3	005
				500 ML PLASTIC-1	NEAT	005
9/16/16	—	WATER	TRIP BLANK	40 ML VOA-3	HCL	006

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	WQCC METALS (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
		✓							✓					
		✓												
											✓			
											✓			
											✓			
									✓					

Date: 9/16/16 Time: 1400 Relinquished by:
Received by: Date: 9/16/16 Time: 1400
Date: Time: Relinquished by:
Received by: Date: Time:

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 21, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 Annual OrderNo.: 1609453

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 7 sample(s) on 9/8/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMW-4
Project: 2016 Annual
Collection Date: 9/7/2016 8:30:00 AM
Lab ID: 1609453-001
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/12/2016 11:49:54 PM	27430
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 11:49:54 PM	27430
Surr: DNOP	118	0	77.1-144		%Rec	1	9/12/2016 11:49:54 PM	27430
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.95	0.050	0.10		mg/L	1	9/12/2016 7:02:28 PM	R37143
Chloride	53	1.0	10		mg/L	20	9/12/2016 7:14:52 PM	R37143
Bromide	0.15	0.044	0.10		mg/L	1	9/12/2016 7:02:28 PM	R37143
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/12/2016 7:02:28 PM	R37143
Sulfate	150	2.8	10		mg/L	20	9/12/2016 7:14:52 PM	R37143
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 4:02:47 PM	R37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.019	0.0013	0.0020		mg/L	1	9/23/2016 3:17:53 PM	B37443
Cadmium	ND	0.00075	0.0020		mg/L	1	9/23/2016 3:17:53 PM	B37443
Calcium	3.5	0.50	1.0		mg/L	1	9/23/2016 3:17:53 PM	B37443
Chromium	0.0028	0.0018	0.0060	J	mg/L	1	9/23/2016 3:17:53 PM	B37443
Copper	ND	0.0040	0.0060		mg/L	1	9/23/2016 3:17:53 PM	B37443
Iron	0.078	0.020	0.020		mg/L	1	9/23/2016 3:17:53 PM	B37443
Magnesium	0.87	0.50	1.0	J	mg/L	1	9/23/2016 3:17:53 PM	B37443
Manganese	0.0064	0.00032	0.0020		mg/L	1	9/23/2016 3:17:53 PM	B37443
Potassium	0.57	0.50	1.0	J	mg/L	1	9/23/2016 3:17:53 PM	B37443
Silver	ND	0.0028	0.0050		mg/L	1	9/23/2016 3:17:53 PM	B37443
Sodium	300	2.5	5.0		mg/L	5	9/23/2016 3:30:11 PM	B37443
Zinc	0.0029	0.0028	0.010	J	mg/L	1	9/23/2016 3:17:53 PM	B37443
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.043	0.00079	0.0020		mg/L	1	10/3/2016 4:06:46 PM	27612
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 4:06:46 PM	27612
Chromium	0.036	0.0027	0.0060		mg/L	1	10/3/2016 4:06:46 PM	27612
Copper	0.0099	0.0030	0.0060		mg/L	1	10/3/2016 4:06:46 PM	27612
Iron	1.6	0.10	0.10	*	mg/L	5	10/4/2016 3:14:02 PM	27612
Manganese	0.035	0.00027	0.0020		mg/L	1	10/3/2016 4:06:46 PM	27612
Silver	ND	0.0077	0.025		mg/L	5	10/4/2016 3:14:02 PM	27612
Zinc	0.011	0.0027	0.010		mg/L	1	10/3/2016 4:06:46 PM	27612
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0030	0.00014	0.0010		mg/L	1	9/20/2016 3:25:26 PM	C37327
Lead	0.00021	0.00017	0.00050	J	mg/L	1	9/20/2016 3:25:26 PM	C37327
Selenium	0.0011	0.00021	0.0010		mg/L	1	9/20/2016 3:25:26 PM	C37327
Uranium	0.032	0.00026	0.0025	*	mg/L	5	9/21/2016 8:20:05 PM	A37386

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMW-4
Project: 2016 Annual
Collection Date: 9/7/2016 8:30:00 AM
Lab ID: 1609453-001
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0030	0.00021	0.0010		mg/L	1	9/21/2016 4:54:59 PM	27612
Lead	0.0017	0.000081	0.00050		mg/L	1	9/21/2016 4:54:59 PM	27612
Selenium	0.00096	0.00019	0.0010	J	mg/L	1	9/21/2016 4:54:59 PM	27612
Uranium	0.031	0.00087	0.0025	*	mg/L	5	9/22/2016 2:22:30 PM	27612
EPA METHOD 245.1: MERCURY							Analyst: **MED**	
Mercury	0.000058	0.000053	0.00020	J	mg/L	1	9/15/2016 1:33:38 PM	27494
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Acenaphthylene	ND	2.4	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Aniline	ND	2.4	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Anthracene	ND	2.5	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Azobenzene	ND	2.7	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Benzoic acid	9.9	2.6	20	J	µg/L	1	9/14/2016 10:37:04 PM	27434
Benzyl alcohol	ND	3.0	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Bis(2-ethylhexyl)phthalate	3.8	2.6	10	J	µg/L	1	9/14/2016 10:37:04 PM	27434
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Carbazole	ND	2.3	10		µg/L	1	9/14/2016 10:37:04 PM	27434
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/14/2016 10:37:04 PM	27434
4-Chloroaniline	ND	2.7	10		µg/L	1	9/14/2016 10:37:04 PM	27434
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/14/2016 10:37:04 PM	27434
2-Chlorophenol	ND	2.2	10		µg/L	1	9/14/2016 10:37:04 PM	27434
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Chrysene	ND	2.8	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Di-n-octyl phthalate	4.9	2.0	10	J	µg/L	1	9/14/2016 10:37:04 PM	27434
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Dibenzofuran	ND	2.5	10		µg/L	1	9/14/2016 10:37:04 PM	27434
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/14/2016 10:37:04 PM	27434
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/14/2016 10:37:04 PM	27434

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMW-4
Project: 2016 Annual
Collection Date: 9/7/2016 8:30:00 AM
Lab ID: 1609453-001
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/14/2016 10:37:04 PM	27434
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Diethyl phthalate	ND	2.7	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Dimethyl phthalate	5.4	2.4	10	J	µg/L	1	9/14/2016 10:37:04 PM	27434
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/14/2016 10:37:04 PM	27434
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/14/2016 10:37:04 PM	27434
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/14/2016 10:37:04 PM	27434
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/14/2016 10:37:04 PM	27434
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/14/2016 10:37:04 PM	27434
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Fluoranthene	ND	2.6	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Fluorene	ND	2.7	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Hexachloroethane	ND	2.4	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Isophorone	ND	2.6	10		µg/L	1	9/14/2016 10:37:04 PM	27434
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/14/2016 10:37:04 PM	27434
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/14/2016 10:37:04 PM	27434
2-Methylphenol	ND	2.5	10		µg/L	1	9/14/2016 10:37:04 PM	27434
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/14/2016 10:37:04 PM	27434
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/14/2016 10:37:04 PM	27434
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/14/2016 10:37:04 PM	27434
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Naphthalene	ND	2.6	10		µg/L	1	9/14/2016 10:37:04 PM	27434
2-Nitroaniline	ND	2.8	10		µg/L	1	9/14/2016 10:37:04 PM	27434
3-Nitroaniline	ND	2.9	10		µg/L	1	9/14/2016 10:37:04 PM	27434
4-Nitroaniline	ND	2.6	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Nitrobenzene	ND	2.8	10		µg/L	1	9/14/2016 10:37:04 PM	27434
2-Nitrophenol	ND	2.4	10		µg/L	1	9/14/2016 10:37:04 PM	27434
4-Nitrophenol	ND	2.6	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Pentachlorophenol	ND	2.3	20		µg/L	1	9/14/2016 10:37:04 PM	27434
Phenanthrene	ND	2.6	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Phenol	ND	2.0	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Pyrene	ND	3.1	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Pyridine	ND	2.2	10		µg/L	1	9/14/2016 10:37:04 PM	27434
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/14/2016 10:37:04 PM	27434
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/14/2016 10:37:04 PM	27434

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMW-4
Project: 2016 Annual
Collection Date: 9/7/2016 8:30:00 AM
Lab ID: 1609453-001
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/14/2016 10:37:04 PM	27434
Surr: 2-Fluorophenol	13.9	0	15-123	S	%Rec	1	9/14/2016 10:37:04 PM	27434
Surr: Phenol-d5	12.6	0	15-124	S	%Rec	1	9/14/2016 10:37:04 PM	27434
Surr: 2,4,6-Tribromophenol	27.8	0	18.4-134		%Rec	1	9/14/2016 10:37:04 PM	27434
Surr: Nitrobenzene-d5	39.2	0	28.8-134		%Rec	1	9/14/2016 10:37:04 PM	27434
Surr: 2-Fluorobiphenyl	37.0	0	35.9-125		%Rec	1	9/14/2016 10:37:04 PM	27434
Surr: 4-Terphenyl-d14	26.6	0	15-146		%Rec	1	9/14/2016 10:37:04 PM	27434
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Toluene	ND	0.12	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Naphthalene	ND	0.093	2.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Acetone	ND	4.9	10		µg/L	1	9/20/2016 5:00:37 PM	R37339
Bromobenzene	ND	0.098	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Bromoform	ND	0.10	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Bromomethane	ND	0.78	3.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
2-Butanone	ND	0.74	10		µg/L	1	9/20/2016 5:00:37 PM	R37339
Carbon disulfide	ND	0.60	10		µg/L	1	9/20/2016 5:00:37 PM	R37339
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Chloroethane	ND	0.19	2.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Chloroform	ND	0.089	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Chloromethane	ND	0.21	3.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Dibromomethane	ND	0.12	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMW-4
Project: 2016 Annual
Collection Date: 9/7/2016 8:30:00 AM
Lab ID: 1609453-001
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
2-Hexanone	ND	0.84	10		µg/L	1	9/20/2016 5:00:37 PM	R37339
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/20/2016 5:00:37 PM	R37339
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Styrene	ND	0.11	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/20/2016 5:00:37 PM	R37339
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/20/2016 5:00:37 PM	R37339
Surr: 1,2-Dichloroethane-d4	96.9	0	70-130		%Rec	1	9/20/2016 5:00:37 PM	R37339
Surr: 4-Bromofluorobenzene	98.5	0	70-130		%Rec	1	9/20/2016 5:00:37 PM	R37339
Surr: Dibromofluoromethane	100	0	70-130		%Rec	1	9/20/2016 5:00:37 PM	R37339
Surr: Toluene-d8	97.7	0	70-130		%Rec	1	9/20/2016 5:00:37 PM	R37339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMW-4
Project: 2016 Annual
Collection Date: 9/7/2016 8:30:00 AM
Lab ID: 1609453-001
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.028	0.015	0.050	J	mg/L	1	9/12/2016 11:12:18 PM	G37129
Surr: BFB	99.6	0	70-130		%Rec	1	9/12/2016 11:12:18 PM	G37129

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-1
Project: 2016 Annual
Collection Date: 9/7/2016 10:30:00 AM
Lab ID: 1609453-002
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/13/2016 12:17:29 AM	27430
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 12:17:29 AM	27430
Surr: DNOP	116	0	77.1-144		%Rec	1	9/13/2016 12:17:29 AM	27430
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.63	0.050	0.10		mg/L	1	9/12/2016 7:27:17 PM	R37143
Chloride	44	1.0	10		mg/L	20	9/12/2016 7:39:41 PM	R37143
Bromide	0.10	0.044	0.10	J	mg/L	1	9/12/2016 7:27:17 PM	R37143
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/12/2016 7:27:17 PM	R37143
Sulfate	150	2.8	10		mg/L	20	9/12/2016 7:39:41 PM	R37143
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 4:15:12 PM	R37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.011	0.0013	0.0020		mg/L	1	9/23/2016 3:35:59 PM	B37443
Cadmium	ND	0.00075	0.0020		mg/L	1	9/23/2016 3:35:59 PM	B37443
Calcium	1.6	0.50	1.0		mg/L	1	9/23/2016 3:35:59 PM	B37443
Chromium	ND	0.0018	0.0060		mg/L	1	9/23/2016 3:35:59 PM	B37443
Copper	ND	0.0040	0.0060		mg/L	1	9/23/2016 3:35:59 PM	B37443
Iron	ND	0.020	0.020		mg/L	1	9/23/2016 3:35:59 PM	B37443
Magnesium	ND	0.50	1.0		mg/L	1	9/23/2016 3:35:59 PM	B37443
Manganese	0.0031	0.00032	0.0020		mg/L	1	9/23/2016 3:35:59 PM	B37443
Potassium	0.71	0.50	1.0	J	mg/L	1	9/23/2016 3:35:59 PM	B37443
Silver	ND	0.0028	0.0050		mg/L	1	9/23/2016 3:35:59 PM	B37443
Sodium	260	2.5	5.0		mg/L	5	9/23/2016 3:42:06 PM	B37443
Zinc	ND	0.0028	0.010		mg/L	1	9/23/2016 3:35:59 PM	B37443
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.012	0.00079	0.0020		mg/L	1	10/3/2016 4:24:06 PM	27612
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 4:24:06 PM	27612
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 4:24:06 PM	27612
Copper	ND	0.0030	0.0060		mg/L	1	10/3/2016 4:24:06 PM	27612
Iron	ND	0.020	0.020		mg/L	1	10/3/2016 4:24:06 PM	27612
Manganese	0.0032	0.00027	0.0020		mg/L	1	10/3/2016 4:24:06 PM	27612
Silver	ND	0.0015	0.0050		mg/L	1	10/12/2016 8:49:11 PM	27933
Zinc	ND	0.0027	0.010		mg/L	1	10/3/2016 4:24:06 PM	27612
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0013	0.00014	0.0010		mg/L	1	9/20/2016 3:28:29 PM	C37327
Lead	ND	0.00017	0.00050		mg/L	1	9/20/2016 3:28:29 PM	C37327
Selenium	0.00054	0.00021	0.0010	J	mg/L	1	9/20/2016 3:28:29 PM	C37327
Uranium	0.011	0.000051	0.00050		mg/L	1	9/20/2016 3:28:29 PM	C37327

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-1
Project: 2016 Annual
Collection Date: 9/7/2016 10:30:00 AM
Lab ID: 1609453-002
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0015	0.00021	0.0010		mg/L	1	9/21/2016 4:58:00 PM	27612
Lead	0.00014	0.000081	0.00050	J	mg/L	1	9/21/2016 4:58:00 PM	27612
Selenium	0.00053	0.00019	0.0010	J	mg/L	1	9/21/2016 4:58:00 PM	27612
Uranium	0.010	0.00017	0.00050		mg/L	1	9/21/2016 4:58:00 PM	27612
EPA METHOD 245.1: MERCURY							Analyst: **MED**	
Mercury	0.000056	0.000053	0.00020	J	mg/L	1	9/15/2016 1:39:55 PM	27494
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Acenaphthylene	ND	2.4	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Aniline	ND	2.4	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Anthracene	ND	2.5	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Azobenzene	ND	2.7	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Benzoic acid	9.8	2.6	20	J	µg/L	1	9/14/2016 11:05:13 PM	27434
Benzyl alcohol	ND	3.0	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Bis(2-ethylhexyl)phthalate	4.0	2.6	10	J	µg/L	1	9/14/2016 11:05:13 PM	27434
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Carbazole	ND	2.3	10		µg/L	1	9/14/2016 11:05:13 PM	27434
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/14/2016 11:05:13 PM	27434
4-Chloroaniline	ND	2.7	10		µg/L	1	9/14/2016 11:05:13 PM	27434
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/14/2016 11:05:13 PM	27434
2-Chlorophenol	ND	2.2	10		µg/L	1	9/14/2016 11:05:13 PM	27434
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Chrysene	ND	2.8	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Di-n-octyl phthalate	4.4	2.0	10	J	µg/L	1	9/14/2016 11:05:13 PM	27434
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Dibenzofuran	ND	2.5	10		µg/L	1	9/14/2016 11:05:13 PM	27434
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/14/2016 11:05:13 PM	27434
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/14/2016 11:05:13 PM	27434

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-1
Project: 2016 Annual
Collection Date: 9/7/2016 10:30:00 AM
Lab ID: 1609453-002
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/14/2016 11:05:13 PM	27434
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Diethyl phthalate	ND	2.7	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Dimethyl phthalate	5.1	2.4	10	J	µg/L	1	9/14/2016 11:05:13 PM	27434
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/14/2016 11:05:13 PM	27434
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/14/2016 11:05:13 PM	27434
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/14/2016 11:05:13 PM	27434
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/14/2016 11:05:13 PM	27434
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/14/2016 11:05:13 PM	27434
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Fluoranthene	ND	2.6	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Fluorene	ND	2.7	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Hexachloroethane	ND	2.4	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Isophorone	ND	2.6	10		µg/L	1	9/14/2016 11:05:13 PM	27434
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/14/2016 11:05:13 PM	27434
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/14/2016 11:05:13 PM	27434
2-Methylphenol	ND	2.5	10		µg/L	1	9/14/2016 11:05:13 PM	27434
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/14/2016 11:05:13 PM	27434
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/14/2016 11:05:13 PM	27434
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/14/2016 11:05:13 PM	27434
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Naphthalene	ND	2.6	10		µg/L	1	9/14/2016 11:05:13 PM	27434
2-Nitroaniline	ND	2.8	10		µg/L	1	9/14/2016 11:05:13 PM	27434
3-Nitroaniline	ND	2.9	10		µg/L	1	9/14/2016 11:05:13 PM	27434
4-Nitroaniline	ND	2.6	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Nitrobenzene	ND	2.8	10		µg/L	1	9/14/2016 11:05:13 PM	27434
2-Nitrophenol	ND	2.4	10		µg/L	1	9/14/2016 11:05:13 PM	27434
4-Nitrophenol	ND	2.6	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Pentachlorophenol	ND	2.3	20		µg/L	1	9/14/2016 11:05:13 PM	27434
Phenanthrene	ND	2.6	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Phenol	ND	2.0	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Pyrene	ND	3.1	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Pyridine	ND	2.2	10		µg/L	1	9/14/2016 11:05:13 PM	27434
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/14/2016 11:05:13 PM	27434
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/14/2016 11:05:13 PM	27434

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-1
Project: 2016 Annual
Collection Date: 9/7/2016 10:30:00 AM
Lab ID: 1609453-002
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/14/2016 11:05:13 PM	27434
Surr: 2-Fluorophenol	23.4	0	15-123		%Rec	1	9/14/2016 11:05:13 PM	27434
Surr: Phenol-d5	21.6	0	15-124		%Rec	1	9/14/2016 11:05:13 PM	27434
Surr: 2,4,6-Tribromophenol	36.3	0	18.4-134		%Rec	1	9/14/2016 11:05:13 PM	27434
Surr: Nitrobenzene-d5	55.9	0	28.8-134		%Rec	1	9/14/2016 11:05:13 PM	27434
Surr: 2-Fluorobiphenyl	50.8	0	35.9-125		%Rec	1	9/14/2016 11:05:13 PM	27434
Surr: 4-Terphenyl-d14	40.8	0	15-146		%Rec	1	9/14/2016 11:05:13 PM	27434
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Toluene	ND	0.12	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Naphthalene	ND	0.093	2.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Acetone	ND	4.9	10		µg/L	1	9/20/2016 5:29:24 PM	R37339
Bromobenzene	ND	0.098	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Bromoform	ND	0.10	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Bromomethane	ND	0.78	3.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
2-Butanone	ND	0.74	10		µg/L	1	9/20/2016 5:29:24 PM	R37339
Carbon disulfide	ND	0.60	10		µg/L	1	9/20/2016 5:29:24 PM	R37339
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Chloroethane	ND	0.19	2.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Chloroform	ND	0.089	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Chloromethane	ND	0.21	3.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Dibromomethane	ND	0.12	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
2-Hexanone	ND	0.84	10		µg/L	1	9/20/2016 5:29:24 PM	R37339
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/20/2016 5:29:24 PM	R37339
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Styrene	ND	0.11	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/20/2016 5:29:24 PM	R37339
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/20/2016 5:29:24 PM	R37339
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	9/20/2016 5:29:24 PM	R37339
Surr: 4-Bromofluorobenzene	94.2	0	70-130		%Rec	1	9/20/2016 5:29:24 PM	R37339
Surr: Dibromofluoromethane	105	0	70-130		%Rec	1	9/20/2016 5:29:24 PM	R37339
Surr: Toluene-d8	96.7	0	70-130		%Rec	1	9/20/2016 5:29:24 PM	R37339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-1
Project: 2016 Annual
Collection Date: 9/7/2016 10:30:00 AM
Lab ID: 1609453-002
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.025	0.015	0.050	J	mg/L	1	9/12/2016 11:41:04 PM	G37129
Surr: BFB	101	0	70-130		%Rec	1	9/12/2016 11:41:04 PM	G37129

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-2
Project: 2016 Annual
Collection Date: 9/7/2016 2:00:00 PM
Lab ID: 1609453-003
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/13/2016 12:45:04 AM	27430
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 12:45:04 AM	27430
Surr: DNOP	118	0	77.1-144		%Rec	1	9/13/2016 12:45:04 AM	27430
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.66	0.050	0.10		mg/L	1	9/12/2016 7:52:06 PM	R37143
Chloride	50	1.0	10		mg/L	20	9/12/2016 8:04:30 PM	R37143
Bromide	0.095	0.044	0.10	J	mg/L	1	9/12/2016 7:52:06 PM	R37143
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/12/2016 7:52:06 PM	R37143
Sulfate	150	2.8	10		mg/L	20	9/12/2016 8:04:30 PM	R37143
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 4:27:36 PM	R37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.018	0.0013	0.0020		mg/L	1	9/23/2016 3:55:41 PM	B37443
Cadmium	ND	0.00075	0.0020		mg/L	1	9/23/2016 3:55:41 PM	B37443
Calcium	1.5	0.50	1.0		mg/L	1	9/23/2016 3:55:41 PM	B37443
Chromium	ND	0.0018	0.0060		mg/L	1	9/23/2016 3:55:41 PM	B37443
Copper	ND	0.0040	0.0060		mg/L	1	9/23/2016 3:55:41 PM	B37443
Iron	ND	0.020	0.020		mg/L	1	9/23/2016 3:55:41 PM	B37443
Magnesium	ND	0.50	1.0		mg/L	1	9/23/2016 3:55:41 PM	B37443
Manganese	0.0024	0.00032	0.0020		mg/L	1	9/23/2016 3:55:41 PM	B37443
Potassium	0.71	0.50	1.0	J	mg/L	1	9/23/2016 3:55:41 PM	B37443
Silver	ND	0.0028	0.0050		mg/L	1	9/23/2016 3:55:41 PM	B37443
Sodium	270	2.5	5.0		mg/L	5	9/23/2016 3:57:45 PM	B37443
Zinc	ND	0.0028	0.010		mg/L	1	9/23/2016 3:55:41 PM	B37443
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.020	0.00079	0.0020		mg/L	1	10/3/2016 4:42:06 PM	27612
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 4:42:06 PM	27612
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 4:42:06 PM	27612
Copper	ND	0.0030	0.0060		mg/L	1	10/3/2016 4:42:06 PM	27612
Iron	ND	0.020	0.020		mg/L	1	10/3/2016 4:42:06 PM	27612
Manganese	0.0031	0.00027	0.0020		mg/L	1	10/3/2016 4:42:06 PM	27612
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 4:42:06 PM	27612
Zinc	ND	0.0027	0.010		mg/L	1	10/3/2016 4:42:06 PM	27612
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0011	0.00014	0.0010		mg/L	1	9/20/2016 3:31:32 PM	C37327
Lead	ND	0.00017	0.00050		mg/L	1	9/20/2016 3:31:32 PM	C37327
Selenium	0.00060	0.00021	0.0010	J	mg/L	1	9/20/2016 3:31:32 PM	C37327
Uranium	0.0095	0.000051	0.00050		mg/L	1	9/20/2016 3:31:32 PM	C37327

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-2
Project: 2016 Annual
Collection Date: 9/7/2016 2:00:00 PM
Lab ID: 1609453-003
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0013	0.00021	0.0010		mg/L	1	9/21/2016 5:07:05 PM	27612
Lead	ND	0.000081	0.00050		mg/L	1	9/21/2016 5:07:05 PM	27612
Selenium	0.00058	0.00019	0.0010	J	mg/L	1	9/21/2016 5:07:05 PM	27612
Uranium	0.0088	0.00017	0.00050		mg/L	1	9/21/2016 5:07:05 PM	27612
EPA METHOD 245.1: MERCURY							Analyst: **MED**	
Mercury	0.000056	0.000053	0.00020	J	mg/L	1	9/15/2016 1:41:59 PM	27494
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Acenaphthylene	ND	2.4	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Aniline	ND	2.4	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Anthracene	ND	2.5	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Azobenzene	ND	2.7	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Benzoic acid	18	2.6	20	J	µg/L	1	9/14/2016 11:33:22 PM	27434
Benzyl alcohol	ND	3.0	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Bis(2-ethylhexyl)phthalate	3.8	2.6	10	J	µg/L	1	9/14/2016 11:33:22 PM	27434
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Carbazole	ND	2.3	10		µg/L	1	9/14/2016 11:33:22 PM	27434
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/14/2016 11:33:22 PM	27434
4-Chloroaniline	ND	2.7	10		µg/L	1	9/14/2016 11:33:22 PM	27434
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/14/2016 11:33:22 PM	27434
2-Chlorophenol	ND	2.2	10		µg/L	1	9/14/2016 11:33:22 PM	27434
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Chrysene	ND	2.8	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Di-n-octyl phthalate	3.5	2.0	10	J	µg/L	1	9/14/2016 11:33:22 PM	27434
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Dibenzofuran	ND	2.5	10		µg/L	1	9/14/2016 11:33:22 PM	27434
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/14/2016 11:33:22 PM	27434
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/14/2016 11:33:22 PM	27434

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-2
Project: 2016 Annual
Collection Date: 9/7/2016 2:00:00 PM
Lab ID: 1609453-003
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/14/2016 11:33:22 PM	27434
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Diethyl phthalate	ND	2.7	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Dimethyl phthalate	5.0	2.4	10	J	µg/L	1	9/14/2016 11:33:22 PM	27434
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/14/2016 11:33:22 PM	27434
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/14/2016 11:33:22 PM	27434
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/14/2016 11:33:22 PM	27434
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/14/2016 11:33:22 PM	27434
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/14/2016 11:33:22 PM	27434
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Fluoranthene	ND	2.6	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Fluorene	ND	2.7	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Hexachloroethane	ND	2.4	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Isophorone	ND	2.6	10		µg/L	1	9/14/2016 11:33:22 PM	27434
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/14/2016 11:33:22 PM	27434
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/14/2016 11:33:22 PM	27434
2-Methylphenol	ND	2.5	10		µg/L	1	9/14/2016 11:33:22 PM	27434
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/14/2016 11:33:22 PM	27434
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/14/2016 11:33:22 PM	27434
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/14/2016 11:33:22 PM	27434
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Naphthalene	ND	2.6	10		µg/L	1	9/14/2016 11:33:22 PM	27434
2-Nitroaniline	ND	2.8	10		µg/L	1	9/14/2016 11:33:22 PM	27434
3-Nitroaniline	ND	2.9	10		µg/L	1	9/14/2016 11:33:22 PM	27434
4-Nitroaniline	ND	2.6	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Nitrobenzene	ND	2.8	10		µg/L	1	9/14/2016 11:33:22 PM	27434
2-Nitrophenol	ND	2.4	10		µg/L	1	9/14/2016 11:33:22 PM	27434
4-Nitrophenol	ND	2.6	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Pentachlorophenol	3.9	2.3	20	J	µg/L	1	9/14/2016 11:33:22 PM	27434
Phenanthrene	ND	2.6	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Phenol	ND	2.0	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Pyrene	5.2	3.1	10	J	µg/L	1	9/14/2016 11:33:22 PM	27434
Pyridine	ND	2.2	10		µg/L	1	9/14/2016 11:33:22 PM	27434
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/14/2016 11:33:22 PM	27434
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/14/2016 11:33:22 PM	27434

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-2
Project: 2016 Annual
Collection Date: 9/7/2016 2:00:00 PM
Lab ID: 1609453-003
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/14/2016 11:33:22 PM	27434
Surr: 2-Fluorophenol	21.4	0	15-123		%Rec	1	9/14/2016 11:33:22 PM	27434
Surr: Phenol-d5	19.4	0	15-124		%Rec	1	9/14/2016 11:33:22 PM	27434
Surr: 2,4,6-Tribromophenol	37.4	0	18.4-134		%Rec	1	9/14/2016 11:33:22 PM	27434
Surr: Nitrobenzene-d5	49.6	0	28.8-134		%Rec	1	9/14/2016 11:33:22 PM	27434
Surr: 2-Fluorobiphenyl	42.8	0	35.9-125		%Rec	1	9/14/2016 11:33:22 PM	27434
Surr: 4-Terphenyl-d14	35.6	0	15-146		%Rec	1	9/14/2016 11:33:22 PM	27434
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Toluene	ND	0.12	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Naphthalene	ND	0.093	2.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Acetone	ND	4.9	10		µg/L	1	9/20/2016 5:58:04 PM	R37339
Bromobenzene	ND	0.098	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Bromoform	ND	0.10	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Bromomethane	ND	0.78	3.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
2-Butanone	ND	0.74	10		µg/L	1	9/20/2016 5:58:04 PM	R37339
Carbon disulfide	ND	0.60	10		µg/L	1	9/20/2016 5:58:04 PM	R37339
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Chloroethane	ND	0.19	2.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Chloroform	ND	0.089	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Chloromethane	ND	0.21	3.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Dibromomethane	ND	0.12	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-2
Project: 2016 Annual
Collection Date: 9/7/2016 2:00:00 PM
Lab ID: 1609453-003
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
2-Hexanone	ND	0.84	10		µg/L	1	9/20/2016 5:58:04 PM	R37339
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/20/2016 5:58:04 PM	R37339
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Styrene	ND	0.11	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/20/2016 5:58:04 PM	R37339
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/20/2016 5:58:04 PM	R37339
Surr: 1,2-Dichloroethane-d4	100	0	70-130		%Rec	1	9/20/2016 5:58:04 PM	R37339
Surr: 4-Bromofluorobenzene	93.9	0	70-130		%Rec	1	9/20/2016 5:58:04 PM	R37339
Surr: Dibromofluoromethane	105	0	70-130		%Rec	1	9/20/2016 5:58:04 PM	R37339
Surr: Toluene-d8	102	0	70-130		%Rec	1	9/20/2016 5:58:04 PM	R37339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-2
Project: 2016 Annual
Collection Date: 9/7/2016 2:00:00 PM
Lab ID: 1609453-003
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.021	0.015	0.050	J	mg/L	1	9/13/2016 12:09:54 AM	G37129
Surr: BFB	95.8	0	70-130		%Rec	1	9/13/2016 12:09:54 AM	G37129

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-5
Project: 2016 Annual
Collection Date: 9/7/2016 3:45:00 PM
Lab ID: 1609453-004
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/13/2016 1:12:49 AM	27430
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 1:12:49 AM	27430
Surr: DNOP	117	0	77.1-144		%Rec	1	9/13/2016 1:12:49 AM	27430
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.65	0.050	0.10		mg/L	1	9/12/2016 8:41:44 PM	R37143
Chloride	56	1.0	10		mg/L	20	9/12/2016 8:54:09 PM	R37143
Bromide	0.095	0.044	0.10	J	mg/L	1	9/12/2016 8:41:44 PM	R37143
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/12/2016 8:41:44 PM	R37143
Sulfate	160	2.8	10		mg/L	20	9/12/2016 8:54:09 PM	R37143
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 4:40:00 PM	R37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.017	0.0013	0.0020		mg/L	1	9/23/2016 3:59:35 PM	B37443
Cadmium	ND	0.00075	0.0020		mg/L	1	9/23/2016 3:59:35 PM	B37443
Calcium	1.4	0.50	1.0		mg/L	1	9/23/2016 3:59:35 PM	B37443
Chromium	ND	0.0018	0.0060		mg/L	1	9/23/2016 3:59:35 PM	B37443
Copper	ND	0.0040	0.0060		mg/L	1	9/23/2016 3:59:35 PM	B37443
Iron	ND	0.020	0.020		mg/L	1	9/23/2016 3:59:35 PM	B37443
Magnesium	ND	0.50	1.0		mg/L	1	9/23/2016 3:59:35 PM	B37443
Manganese	0.0035	0.00032	0.0020		mg/L	1	9/23/2016 3:59:35 PM	B37443
Potassium	0.67	0.50	1.0	J	mg/L	1	9/23/2016 3:59:35 PM	B37443
Silver	ND	0.0028	0.0050		mg/L	1	9/23/2016 3:59:35 PM	B37443
Sodium	270	2.5	5.0		mg/L	5	9/23/2016 4:01:39 PM	B37443
Zinc	ND	0.0028	0.010		mg/L	1	9/23/2016 3:59:35 PM	B37443
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.041	0.00079	0.0020		mg/L	1	10/3/2016 4:46:00 PM	27612
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 4:46:00 PM	27612
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 4:46:00 PM	27612
Copper	ND	0.0030	0.0060		mg/L	1	10/3/2016 4:46:00 PM	27612
Iron	ND	0.020	0.020		mg/L	1	10/3/2016 4:46:00 PM	27612
Manganese	0.0046	0.00027	0.0020		mg/L	1	10/3/2016 4:46:00 PM	27612
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 4:46:00 PM	27612
Zinc	ND	0.0027	0.010		mg/L	1	10/3/2016 4:46:00 PM	27612
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0010	0.00014	0.0010		mg/L	1	9/20/2016 3:34:36 PM	C37327
Lead	ND	0.00017	0.00050		mg/L	1	9/20/2016 3:34:36 PM	C37327
Selenium	0.00050	0.00021	0.0010	J	mg/L	1	9/20/2016 3:34:36 PM	C37327
Uranium	0.0094	0.000051	0.00050		mg/L	1	9/20/2016 3:34:36 PM	C37327

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-5
Project: 2016 Annual
Collection Date: 9/7/2016 3:45:00 PM
Lab ID: 1609453-004
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0012	0.00021	0.0010		mg/L	1	9/21/2016 5:13:07 PM	27612
Lead	ND	0.000081	0.00050		mg/L	1	9/21/2016 5:13:07 PM	27612
Selenium	0.00038	0.00019	0.0010	J	mg/L	1	9/21/2016 5:13:07 PM	27612
Uranium	0.0092	0.00017	0.00050		mg/L	1	9/21/2016 5:13:07 PM	27612
EPA METHOD 245.1: MERCURY							Analyst: **MED**	
Mercury	0.000055	0.000053	0.00020	J	mg/L	1	9/15/2016 1:44:03 PM	27494
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Acenaphthylene	ND	2.4	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Aniline	ND	2.4	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Anthracene	ND	2.5	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Azobenzene	ND	2.7	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Benzoic acid	6.5	2.6	20	J	µg/L	1	9/15/2016 12:01:32 AM	27434
Benzyl alcohol	ND	3.0	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Bis(2-ethylhexyl)phthalate	3.3	2.6	10	J	µg/L	1	9/15/2016 12:01:32 AM	27434
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Carbazole	ND	2.3	10		µg/L	1	9/15/2016 12:01:32 AM	27434
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/15/2016 12:01:32 AM	27434
4-Chloroaniline	ND	2.7	10		µg/L	1	9/15/2016 12:01:32 AM	27434
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/15/2016 12:01:32 AM	27434
2-Chlorophenol	ND	2.2	10		µg/L	1	9/15/2016 12:01:32 AM	27434
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Chrysene	ND	2.8	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Di-n-octyl phthalate	3.4	2.0	10	J	µg/L	1	9/15/2016 12:01:32 AM	27434
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Dibenzofuran	ND	2.5	10		µg/L	1	9/15/2016 12:01:32 AM	27434
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/15/2016 12:01:32 AM	27434
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/15/2016 12:01:32 AM	27434

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-5
Project: 2016 Annual
Collection Date: 9/7/2016 3:45:00 PM
Lab ID: 1609453-004
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/15/2016 12:01:32 AM	27434
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Diethyl phthalate	ND	2.7	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Dimethyl phthalate	5.1	2.4	10	J	µg/L	1	9/15/2016 12:01:32 AM	27434
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/15/2016 12:01:32 AM	27434
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/15/2016 12:01:32 AM	27434
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/15/2016 12:01:32 AM	27434
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/15/2016 12:01:32 AM	27434
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/15/2016 12:01:32 AM	27434
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Fluoranthene	ND	2.6	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Fluorene	ND	2.7	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Hexachloroethane	ND	2.4	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Isophorone	ND	2.6	10		µg/L	1	9/15/2016 12:01:32 AM	27434
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/15/2016 12:01:32 AM	27434
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/15/2016 12:01:32 AM	27434
2-Methylphenol	ND	2.5	10		µg/L	1	9/15/2016 12:01:32 AM	27434
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/15/2016 12:01:32 AM	27434
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/15/2016 12:01:32 AM	27434
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/15/2016 12:01:32 AM	27434
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Naphthalene	ND	2.6	10		µg/L	1	9/15/2016 12:01:32 AM	27434
2-Nitroaniline	ND	2.8	10		µg/L	1	9/15/2016 12:01:32 AM	27434
3-Nitroaniline	ND	2.9	10		µg/L	1	9/15/2016 12:01:32 AM	27434
4-Nitroaniline	ND	2.6	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Nitrobenzene	ND	2.8	10		µg/L	1	9/15/2016 12:01:32 AM	27434
2-Nitrophenol	ND	2.4	10		µg/L	1	9/15/2016 12:01:32 AM	27434
4-Nitrophenol	ND	2.6	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Pentachlorophenol	ND	2.3	20		µg/L	1	9/15/2016 12:01:32 AM	27434
Phenanthrene	ND	2.6	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Phenol	ND	2.0	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Pyrene	ND	3.1	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Pyridine	ND	2.2	10		µg/L	1	9/15/2016 12:01:32 AM	27434
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/15/2016 12:01:32 AM	27434
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/15/2016 12:01:32 AM	27434

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-5
Project: 2016 Annual
Collection Date: 9/7/2016 3:45:00 PM
Lab ID: 1609453-004
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/15/2016 12:01:32 AM	27434
Surr: 2-Fluorophenol	10.2	0	15-123	S	%Rec	1	9/15/2016 12:01:32 AM	27434
Surr: Phenol-d5	10.7	0	15-124	S	%Rec	1	9/15/2016 12:01:32 AM	27434
Surr: 2,4,6-Tribromophenol	15.1	0	18.4-134	S	%Rec	1	9/15/2016 12:01:32 AM	27434
Surr: Nitrobenzene-d5	29.4	0	28.8-134		%Rec	1	9/15/2016 12:01:32 AM	27434
Surr: 2-Fluorobiphenyl	23.4	0	35.9-125	S	%Rec	1	9/15/2016 12:01:32 AM	27434
Surr: 4-Terphenyl-d14	21.1	0	15-146		%Rec	1	9/15/2016 12:01:32 AM	27434
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Toluene	ND	0.12	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Naphthalene	ND	0.093	2.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Acetone	ND	4.9	10		µg/L	1	9/20/2016 6:26:42 PM	R37339
Bromobenzene	ND	0.098	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Bromoform	ND	0.10	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Bromomethane	ND	0.78	3.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
2-Butanone	ND	0.74	10		µg/L	1	9/20/2016 6:26:42 PM	R37339
Carbon disulfide	ND	0.60	10		µg/L	1	9/20/2016 6:26:42 PM	R37339
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Chloroethane	ND	0.19	2.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Chloroform	ND	0.089	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Chloromethane	ND	0.21	3.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Dibromomethane	ND	0.12	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-5
Project: 2016 Annual
Collection Date: 9/7/2016 3:45:00 PM
Lab ID: 1609453-004
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
2-Hexanone	ND	0.84	10		µg/L	1	9/20/2016 6:26:42 PM	R37339
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/20/2016 6:26:42 PM	R37339
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Styrene	ND	0.11	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/20/2016 6:26:42 PM	R37339
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/20/2016 6:26:42 PM	R37339
Surr: 1,2-Dichloroethane-d4	96.8	0	70-130		%Rec	1	9/20/2016 6:26:42 PM	R37339
Surr: 4-Bromofluorobenzene	98.1	0	70-130		%Rec	1	9/20/2016 6:26:42 PM	R37339
Surr: Dibromofluoromethane	102	0	70-130		%Rec	1	9/20/2016 6:26:42 PM	R37339
Surr: Toluene-d8	97.8	0	70-130		%Rec	1	9/20/2016 6:26:42 PM	R37339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-5
Project: 2016 Annual
Collection Date: 9/7/2016 3:45:00 PM
Lab ID: 1609453-004
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.027	0.015	0.050	J	mg/L	1	9/13/2016 12:38:42 AM	G37129
Surr: BFB	101	0	70-130		%Rec	1	9/13/2016 12:38:42 AM	G37129

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-4
Project: 2016 Annual
Collection Date: 9/7/2016 5:40:00 PM
Lab ID: 1609453-005
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/13/2016 1:40:18 AM	27430
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 1:40:18 AM	27430
Surr: DNOP	118	0	77.1-144		%Rec	1	9/13/2016 1:40:18 AM	27430
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.21	0.050	0.10		mg/L	1	9/12/2016 9:06:34 PM	R37143
Chloride	18	0.051	0.50		mg/L	1	9/12/2016 9:06:34 PM	R37143
Bromide	0.13	0.044	0.10		mg/L	1	9/12/2016 9:06:34 PM	R37143
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/12/2016 9:06:34 PM	R37143
Sulfate	140	2.8	10		mg/L	20	9/12/2016 9:18:59 PM	R37143
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 4:52:25 PM	R37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.020	0.0013	0.0020		mg/L	1	9/23/2016 4:03:27 PM	B37443
Cadmium	ND	0.00075	0.0020		mg/L	1	9/23/2016 4:03:27 PM	B37443
Calcium	1.8	0.50	1.0		mg/L	1	9/23/2016 4:03:27 PM	B37443
Chromium	ND	0.0018	0.0060		mg/L	1	9/23/2016 4:03:27 PM	B37443
Copper	ND	0.0040	0.0060		mg/L	1	9/23/2016 4:03:27 PM	B37443
Iron	ND	0.020	0.020		mg/L	1	9/23/2016 4:03:27 PM	B37443
Magnesium	ND	0.50	1.0		mg/L	1	9/23/2016 4:03:27 PM	B37443
Manganese	0.0046	0.00032	0.0020		mg/L	1	9/23/2016 4:03:27 PM	B37443
Potassium	0.81	0.50	1.0	J	mg/L	1	9/23/2016 4:03:27 PM	B37443
Silver	ND	0.0028	0.0050		mg/L	1	9/23/2016 4:03:27 PM	B37443
Sodium	300	2.5	5.0		mg/L	5	9/23/2016 4:05:31 PM	B37443
Zinc	ND	0.0028	0.010		mg/L	1	9/23/2016 4:03:27 PM	B37443
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.022	0.00079	0.0020		mg/L	1	10/3/2016 4:49:54 PM	27612
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 4:49:54 PM	27612
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 4:49:54 PM	27612
Copper	ND	0.0030	0.0060		mg/L	1	10/3/2016 4:49:54 PM	27612
Iron	0.028	0.020	0.020		mg/L	1	10/3/2016 4:49:54 PM	27612
Manganese	0.0064	0.00027	0.0020		mg/L	1	10/3/2016 4:49:54 PM	27612
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 4:49:54 PM	27612
Zinc	ND	0.0027	0.010		mg/L	1	10/3/2016 4:49:54 PM	27612
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.00089	0.00014	0.0010	J	mg/L	1	9/20/2016 3:37:39 PM	C37327
Lead	ND	0.00017	0.00050		mg/L	1	9/20/2016 3:37:39 PM	C37327
Selenium	0.00072	0.00021	0.0010	J	mg/L	1	9/20/2016 3:37:39 PM	C37327
Uranium	0.017	0.000051	0.00050		mg/L	1	9/20/2016 3:37:39 PM	C37327

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-4
Project: 2016 Annual
Collection Date: 9/7/2016 5:40:00 PM
Lab ID: 1609453-005
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.00098	0.00021	0.0010	J	mg/L	1	9/21/2016 5:22:08 PM	27612
Lead	0.00017	0.000081	0.00050	J	mg/L	1	9/21/2016 5:22:08 PM	27612
Selenium	0.00065	0.00019	0.0010	J	mg/L	1	9/21/2016 5:22:08 PM	27612
Uranium	0.016	0.00017	0.00050		mg/L	1	9/21/2016 5:22:08 PM	27612
EPA METHOD 245.1: MERCURY							Analyst: **MED**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/15/2016 1:46:08 PM	27494
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Acenaphthylene	ND	2.4	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Aniline	ND	2.4	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Anthracene	ND	2.5	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Azobenzene	ND	2.7	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Benzoic acid	9.3	2.6	20	J	µg/L	1	9/15/2016 12:29:42 AM	27434
Benzyl alcohol	ND	3.0	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Bis(2-ethylhexyl)phthalate	3.5	2.6	10	J	µg/L	1	9/15/2016 12:29:42 AM	27434
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Carbazole	ND	2.3	10		µg/L	1	9/15/2016 12:29:42 AM	27434
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/15/2016 12:29:42 AM	27434
4-Chloroaniline	ND	2.7	10		µg/L	1	9/15/2016 12:29:42 AM	27434
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/15/2016 12:29:42 AM	27434
2-Chlorophenol	ND	2.2	10		µg/L	1	9/15/2016 12:29:42 AM	27434
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Chrysene	ND	2.8	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Di-n-octyl phthalate	3.7	2.0	10	J	µg/L	1	9/15/2016 12:29:42 AM	27434
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Dibenzofuran	ND	2.5	10		µg/L	1	9/15/2016 12:29:42 AM	27434
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/15/2016 12:29:42 AM	27434
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/15/2016 12:29:42 AM	27434

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-4
Project: 2016 Annual
Collection Date: 9/7/2016 5:40:00 PM
Lab ID: 1609453-005
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/15/2016 12:29:42 AM	27434
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Diethyl phthalate	ND	2.7	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Dimethyl phthalate	4.5	2.4	10	J	µg/L	1	9/15/2016 12:29:42 AM	27434
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/15/2016 12:29:42 AM	27434
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/15/2016 12:29:42 AM	27434
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/15/2016 12:29:42 AM	27434
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/15/2016 12:29:42 AM	27434
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/15/2016 12:29:42 AM	27434
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Fluoranthene	ND	2.6	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Fluorene	ND	2.7	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Hexachloroethane	ND	2.4	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Isophorone	ND	2.6	10		µg/L	1	9/15/2016 12:29:42 AM	27434
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/15/2016 12:29:42 AM	27434
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/15/2016 12:29:42 AM	27434
2-Methylphenol	ND	2.5	10		µg/L	1	9/15/2016 12:29:42 AM	27434
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/15/2016 12:29:42 AM	27434
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/15/2016 12:29:42 AM	27434
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/15/2016 12:29:42 AM	27434
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Naphthalene	ND	2.6	10		µg/L	1	9/15/2016 12:29:42 AM	27434
2-Nitroaniline	ND	2.8	10		µg/L	1	9/15/2016 12:29:42 AM	27434
3-Nitroaniline	ND	2.9	10		µg/L	1	9/15/2016 12:29:42 AM	27434
4-Nitroaniline	ND	2.6	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Nitrobenzene	ND	2.8	10		µg/L	1	9/15/2016 12:29:42 AM	27434
2-Nitrophenol	ND	2.4	10		µg/L	1	9/15/2016 12:29:42 AM	27434
4-Nitrophenol	ND	2.6	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Pentachlorophenol	ND	2.3	20		µg/L	1	9/15/2016 12:29:42 AM	27434
Phenanthrene	ND	2.6	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Phenol	ND	2.0	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Pyrene	3.2	3.1	10	J	µg/L	1	9/15/2016 12:29:42 AM	27434
Pyridine	ND	2.2	10		µg/L	1	9/15/2016 12:29:42 AM	27434
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/15/2016 12:29:42 AM	27434
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/15/2016 12:29:42 AM	27434

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-4
Project: 2016 Annual
Collection Date: 9/7/2016 5:40:00 PM
Lab ID: 1609453-005
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/15/2016 12:29:42 AM	27434
Surr: 2-Fluorophenol	20.2	0	15-123		%Rec	1	9/15/2016 12:29:42 AM	27434
Surr: Phenol-d5	18.7	0	15-124		%Rec	1	9/15/2016 12:29:42 AM	27434
Surr: 2,4,6-Tribromophenol	37.9	0	18.4-134		%Rec	1	9/15/2016 12:29:42 AM	27434
Surr: Nitrobenzene-d5	49.3	0	28.8-134		%Rec	1	9/15/2016 12:29:42 AM	27434
Surr: 2-Fluorobiphenyl	49.0	0	35.9-125		%Rec	1	9/15/2016 12:29:42 AM	27434
Surr: 4-Terphenyl-d14	37.6	0	15-146		%Rec	1	9/15/2016 12:29:42 AM	27434
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Toluene	ND	0.12	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Naphthalene	ND	0.093	2.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Acetone	ND	4.9	10		µg/L	1	9/20/2016 6:55:26 PM	R37339
Bromobenzene	ND	0.098	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Bromoform	ND	0.10	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Bromomethane	ND	0.78	3.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
2-Butanone	ND	0.74	10		µg/L	1	9/20/2016 6:55:26 PM	R37339
Carbon disulfide	ND	0.60	10		µg/L	1	9/20/2016 6:55:26 PM	R37339
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Chloroethane	ND	0.19	2.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Chloroform	ND	0.089	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Chloromethane	ND	0.21	3.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Dibromomethane	ND	0.12	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-4
Project: 2016 Annual
Collection Date: 9/7/2016 5:40:00 PM
Lab ID: 1609453-005
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
2-Hexanone	ND	0.84	10		µg/L	1	9/20/2016 6:55:26 PM	R37339
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/20/2016 6:55:26 PM	R37339
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Styrene	ND	0.11	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/20/2016 6:55:26 PM	R37339
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/20/2016 6:55:26 PM	R37339
Surr: 1,2-Dichloroethane-d4	97.3	0	70-130		%Rec	1	9/20/2016 6:55:26 PM	R37339
Surr: 4-Bromofluorobenzene	99.2	0	70-130		%Rec	1	9/20/2016 6:55:26 PM	R37339
Surr: Dibromofluoromethane	101	0	70-130		%Rec	1	9/20/2016 6:55:26 PM	R37339
Surr: Toluene-d8	100	0	70-130		%Rec	1	9/20/2016 6:55:26 PM	R37339
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-4
Project: 2016 Annual
Collection Date: 9/7/2016 5:40:00 PM
Lab ID: 1609453-005
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.020	0.015	0.050	J	mg/L	1	9/13/2016 1:07:29 AM	G37129
Surr: BFB	96.7	0	70-130		%Rec	1	9/13/2016 1:07:29 AM	G37129

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 Annual
Collection Date:
Lab ID: 1609453-006
Matrix: TRIP BLANK
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Toluene	ND	0.12	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Naphthalene	ND	0.093	2.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Acetone	ND	4.9	10		µg/L	1	9/20/2016 7:24:08 PM	R37339
Bromobenzene	ND	0.098	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Bromoform	ND	0.10	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Bromomethane	ND	0.78	3.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
2-Butanone	ND	0.74	10		µg/L	1	9/20/2016 7:24:08 PM	R37339
Carbon disulfide	ND	0.60	10		µg/L	1	9/20/2016 7:24:08 PM	R37339
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Chloroethane	ND	0.19	2.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Chloroform	ND	0.089	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Chloromethane	ND	0.21	3.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Dibromomethane	ND	0.12	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/20/2016 7:24:08 PM	R37339

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 Annual
Collection Date:
Lab ID: 1609453-006
Matrix: TRIP BLANK
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
2-Hexanone	ND	0.84	10		µg/L	1	9/20/2016 7:24:08 PM	R37339
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/20/2016 7:24:08 PM	R37339
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Styrene	ND	0.11	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/20/2016 7:24:08 PM	R37339
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/20/2016 7:24:08 PM	R37339
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	1	9/20/2016 7:24:08 PM	R37339
Surr: 4-Bromofluorobenzene	99.7	0	70-130		%Rec	1	9/20/2016 7:24:08 PM	R37339
Surr: Dibromofluoromethane	99.2	0	70-130		%Rec	1	9/20/2016 7:24:08 PM	R37339
Surr: Toluene-d8	98.7	0	70-130		%Rec	1	9/20/2016 7:24:08 PM	R37339

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 Annual
Collection Date:
Lab ID: 1609453-007
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Toluene	ND	0.12	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Naphthalene	ND	0.093	2.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Acetone	ND	4.9	10		µg/L	1	9/20/2016 7:53:00 PM	R37339
Bromobenzene	ND	0.098	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Bromoform	ND	0.10	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Bromomethane	ND	0.78	3.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
2-Butanone	ND	0.74	10		µg/L	1	9/20/2016 7:53:00 PM	R37339
Carbon disulfide	ND	0.60	10		µg/L	1	9/20/2016 7:53:00 PM	R37339
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Chloroethane	ND	0.19	2.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Chloroform	ND	0.089	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Chloromethane	ND	0.21	3.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Dibromomethane	ND	0.12	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/20/2016 7:53:00 PM	R37339

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 Annual
Collection Date:
Lab ID: 1609453-007
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
2-Hexanone	ND	0.84	10		µg/L	1	9/20/2016 7:53:00 PM	R37339
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/20/2016 7:53:00 PM	R37339
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Styrene	ND	0.11	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/20/2016 7:53:00 PM	R37339
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/20/2016 7:53:00 PM	R37339
Surr: 1,2-Dichloroethane-d4	100	0	70-130		%Rec	1	9/20/2016 7:53:00 PM	R37339
Surr: 4-Bromofluorobenzene	94.9	0	70-130		%Rec	1	9/20/2016 7:53:00 PM	R37339
Surr: Dibromofluoromethane	94.7	0	70-130		%Rec	1	9/20/2016 7:53:00 PM	R37339
Surr: Toluene-d8	96.8	0	70-130		%Rec	1	9/20/2016 7:53:00 PM	R37339

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 160913041
Project Name: 1609453

Analytical Results Report

Sample Number 160913041-001 **Sampling Date** 9/7/2016 **Date/Time Received** 9/13/2016 11:40 AM
Client Sample ID 1609453-001G / SMW-4 **Sampling Time** 8:30 AM
Matrix Water
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	9/14/2016	MER	EPA 335.4	

Sample Number 160913041-002 **Sampling Date** 9/7/2016 **Date/Time Received** 9/13/2016 11:40 AM
Client Sample ID 1609453-002G / MW-1 **Sampling Time** 10:30 AM
Matrix Water
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	9/14/2016	MER	EPA 335.4	

Sample Number 160913041-003 **Sampling Date** 9/7/2016 **Date/Time Received** 9/13/2016 11:40 AM
Client Sample ID 1609453-003G / MW-2 **Sampling Time** 2:00 PM
Matrix Water
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	9/20/2016	MER	EPA 335.4	

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 160913041
Project Name: 1609453

Analytical Results Report

Sample Number 160913041-004 **Sampling Date** 9/7/2016 **Date/Time Received** 9/13/2016 11:40 AM
Client Sample ID 1609453-004G / MW-5 **Sampling Time** 3:45 PM
Matrix Water
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	9/20/2016	MER	EPA 335.4	

Sample Number 160913041-005 **Sampling Date** 9/7/2016 **Date/Time Received** 9/13/2016 11:40 AM
Client Sample ID 1609453-005G / MW-4 **Sampling Time** 5:40 PM
Matrix Water
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	9/20/2016	MER	EPA 335.4	

Authorized Signature

Todd Taruscio, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 160913041
Project Name: 1609453

Analytical Results Report

Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.518	mg/L	0.5	103.6	90-110	9/20/2016	9/20/2016
Cyanide	0.513	mg/L	0.5	102.6	90-110	9/14/2016	9/14/2016

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
160913041-003	Cyanide	ND	0.494	mg/L	0.5	98.8	90-110	9/20/2016	9/20/2016
160908027-002	Cyanide	ND	0.509	mg/L	0.5	101.8	90-110	9/14/2016	9/14/2016

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	0.475	mg/L	0.5	95.0	3.9	0-20	9/20/2016	9/20/2016
Cyanide	0.494	mg/L	0.5	98.8	3.0	0-20	9/14/2016	9/14/2016

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/L	0.01	9/20/2016	9/20/2016
Cyanide	ND	mg/L	0.01	9/14/2016	9/14/2016

AR	Acceptable Range
ND	Not Detected
PQL	Practical Quantitation Limit
RPD	Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013;NV:ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B37443**	RunNo: **37443**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164053** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B37443**	RunNo: **37443**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164054** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.6	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.7	85	115			
Calcium	51	1.0	50.00	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	97.5	85	115			
Copper	0.48	0.0060	0.5000	0	95.9	85	115			
Iron	0.48	0.020	0.5000	0	95.7	85	115			
Magnesium	51	1.0	50.00	0	102	85	115			
Manganese	0.48	0.0020	0.5000	0	96.2	85	115			
Potassium	49	1.0	50.00	0	98.6	85	115			
Silver	0.099	0.0050	0.1000	0	98.7	85	115			
Sodium	50	1.0	50.00	0	101	85	115			
Zinc	0.48	0.010	0.5000	0	96.1	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37443**	RunNo: **37443**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164055** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0022	0.0020	0.002000	0	112	50	150			
Cadmium	0.0019	0.0020	0.002000	0	97.0	50	150			J
Calcium	0.57	1.0	0.5000	0	114	50	150			J
Chromium	0.0062	0.0060	0.006000	0	103	50	150			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37443**	RunNo: **37443**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164055** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0064	0.0060	0.006000	0	106	50	150			
Iron	0.022	0.020	0.02000	0	108	50	150			
Magnesium	0.56	1.0	0.5000	0	112	50	150			J
Manganese	0.0021	0.0020	0.002000	0	105	50	150			
Potassium	0.54	1.0	0.5000	0	108	50	150			J
Silver	0.0052	0.0050	0.005000	0	103	50	150			
Sodium	0.56	1.0	0.5000	0	112	50	150			J
Zinc	0.0062	0.010	0.005000	0	124	50	150			J

Sample ID **1609453-001EMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **SMW-4**	Batch ID: **B37443**	RunNo: **37443**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164187** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0.01935	101	70	130			
Cadmium	0.52	0.0020	0.5000	0	103	70	130			
Calcium	55	1.0	50.00	3.542	104	70	130			
Chromium	0.50	0.0060	0.5000	0.002770	99.8	70	130			
Copper	0.53	0.0060	0.5000	0	106	70	130			
Iron	0.62	0.020	0.5000	0.07846	109	70	130			
Magnesium	54	1.0	50.00	0.8684	107	70	130			
Manganese	0.50	0.0020	0.5000	0.006370	99.4	70	130			
Potassium	53	1.0	50.00	0.5731	105	70	130			
Silver	0.093	0.0050	0.1000	0	93.1	70	130			
Zinc	0.50	0.010	0.5000	0.002920	100	70	130			

Sample ID **1609453-001EMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **SMW-4**	Batch ID: **B37443**	RunNo: **37443**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164188** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0.01935	98.7	70	130	2.19	20	
Cadmium	0.51	0.0020	0.5000	0	101	70	130	2.17	20	
Calcium	57	1.0	50.00	3.542	107	70	130	2.66	20	
Chromium	0.49	0.0060	0.5000	0.002770	98.2	70	130	1.53	20	
Copper	0.52	0.0060	0.5000	0	104	70	130	2.49	20	
Iron	0.62	0.020	0.5000	0.07846	108	70	130	0.989	20	
Magnesium	56	1.0	50.00	0.8684	110	70	130	2.73	20	
Manganese	0.49	0.0020	0.5000	0.006370	97.0	70	130	2.45	20	
Potassium	55	1.0	50.00	0.5731	108	70	130	2.78	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID	**1609453-001EMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**SMW-4**	Batch ID:	**B37443**		RunNo:	**37443**				
Prep Date:		Analysis Date:	**9/23/2016**		SeqNo:	**1164188**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.097	0.0050	0.1000	0	97.0	70	130	4.03	20	
Zinc	0.50	0.010	0.5000	0.002920	98.6	70	130	1.55	20	

Sample ID	**1609453-002EMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**MW-1**	Batch ID:	**B37443**		RunNo:	**37443**				
Prep Date:		Analysis Date:	**9/23/2016**		SeqNo:	**1164193**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0.01137	98.9	70	130			
Cadmium	0.50	0.0020	0.5000	0	99.2	70	130			
Calcium	55	1.0	50.00	1.577	107	70	130			
Chromium	0.49	0.0060	0.5000	0	97.1	70	130			
Copper	0.51	0.0060	0.5000	0	102	70	130			
Iron	0.48	0.020	0.5000	0	95.6	70	130			
Magnesium	54	1.0	50.00	0	107	70	130			
Manganese	0.49	0.0020	0.5000	0.003070	97.4	70	130			
Potassium	53	1.0	50.00	0.7094	104	70	130			
Silver	0.095	0.0050	0.1000	0	95.5	70	130			
Zinc	0.50	0.010	0.5000	0	99.5	70	130			

Sample ID	**1609453-002EMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**MW-1**	Batch ID:	**B37443**		RunNo:	**37443**				
Prep Date:		Analysis Date:	**9/23/2016**		SeqNo:	**1164194**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0.01137	101	70	130	1.71	20	
Cadmium	0.52	0.0020	0.5000	0	104	70	130	4.32	20	
Calcium	54	1.0	50.00	1.577	105	70	130	1.17	20	
Chromium	0.51	0.0060	0.5000	0	101	70	130	4.08	20	
Copper	0.52	0.0060	0.5000	0	104	70	130	2.22	20	
Iron	0.50	0.020	0.5000	0	100	70	130	4.72	20	
Magnesium	53	1.0	50.00	0	106	70	130	1.44	20	
Manganese	0.50	0.0020	0.5000	0.003070	99.2	70	130	1.81	20	
Potassium	52	1.0	50.00	0.7094	103	70	130	1.20	20	
Silver	0.094	0.0050	0.1000	0	93.6	70	130	1.95	20	
Zinc	0.52	0.010	0.5000	0	104	70	130	4.35	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **MB-27612**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **27612**	RunNo: **37369**
Prep Date: **9/20/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161349** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-27612**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **27612**	RunNo: **37369**
Prep Date: **9/20/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161350** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.1	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.3	85	115			
Chromium	0.47	0.0060	0.5000	0	94.2	85	115			
Copper	0.47	0.0060	0.5000	0	93.1	85	115			
Iron	0.47	0.020	0.5000	0	94.2	85	115			
Manganese	0.46	0.0020	0.5000	0	93.0	85	115			
Silver	0.098	0.0050	0.1000	0	97.7	85	115			
Zinc	0.47	0.010	0.5000	0	93.3	85	115			

Sample ID **LLLCS-27612**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **27612**	RunNo: **37369**
Prep Date: **9/20/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161351** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0026	0.0020	0.002000	0	130	50	150			
Cadmium	0.0018	0.0020	0.002000	0	90.5	50	150			J
Chromium	0.0059	0.0060	0.006000	0	97.7	50	150			J
Copper	0.0054	0.0060	0.006000	0	90.7	50	150			J
Iron	0.021	0.020	0.02000	0	105	50	150			
Manganese	0.0020	0.0020	0.002000	0	99.5	50	150			J
Silver	0.0047	0.0050	0.005000	0	94.4	50	150			J
Zinc	0.0051	0.010	0.005000	0	102	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID	**1609453-001FMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**SMW-4**	Batch ID:	**27612**		RunNo:	**37643**				
Prep Date:	**9/20/2016**	Analysis Date:	**10/3/2016**		SeqNo:	**1171683**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.57	0.0020	0.5000	0.04321	105	70	130			
Cadmium	0.52	0.0020	0.5000	0	105	70	130			
Chromium	0.55	0.0060	0.5000	0.03634	103	70	130			
Copper	0.55	0.0060	0.5000	0.009940	108	70	130			
Manganese	0.55	0.0020	0.5000	0.03537	103	70	130			
Zinc	0.54	0.010	0.5000	0.01144	106	70	130			

Sample ID	**1609453-001FMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**SMW-4**	Batch ID:	**27612**		RunNo:	**37643**				
Prep Date:	**9/20/2016**	Analysis Date:	**10/3/2016**		SeqNo:	**1171687**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.57	0.0020	0.5000	0.04321	106	70	130	1.00	20	
Cadmium	0.53	0.0020	0.5000	0	105	70	130	0.746	20	
Chromium	0.55	0.0060	0.5000	0.03634	103	70	130	0.395	20	
Copper	0.55	0.0060	0.5000	0.009940	108	70	130	0.127	20	
Manganese	0.56	0.0020	0.5000	0.03537	104	70	130	1.07	20	
Zinc	0.55	0.010	0.5000	0.01144	107	70	130	1.04	20	

Sample ID	**1609453-002FMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MW-1**	Batch ID:	**27612**		RunNo:	**37643**				
Prep Date:	**9/20/2016**	Analysis Date:	**10/3/2016**		SeqNo:	**1171692**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0.01162	103	70	130			
Cadmium	0.51	0.0020	0.5000	0	103	70	130			
Chromium	0.51	0.0060	0.5000	0	102	70	130			
Copper	0.54	0.0060	0.5000	0	108	70	130			
Iron	0.53	0.020	0.5000	0	106	70	130			
Manganese	0.51	0.0020	0.5000	0.003190	102	70	130			
Zinc	0.52	0.010	0.5000	0	103	70	130			

Sample ID	**1609453-002FMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MW-1**	Batch ID:	**27612**		RunNo:	**37643**				
Prep Date:	**9/20/2016**	Analysis Date:	**10/3/2016**		SeqNo:	**1171693**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0.01162	102	70	130	1.66	20	
Cadmium	0.51	0.0020	0.5000	0	103	70	130	0.263	20	
Chromium	0.51	0.0060	0.5000	0	101	70	130	0.312	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID	**1609453-002FMSD**	SampType: **MSD**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MW-1**	Batch ID: **27612**			RunNo: **37643**					
Prep Date:	**9/20/2016**	Analysis Date: **10/3/2016**			SeqNo: **1171693**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.53	0.0060	0.5000	0	106	70	130	1.64	20	
Iron	0.52	0.020	0.5000	0	104	70	130	1.80	20	
Manganese	0.50	0.0020	0.5000	0.003190	100	70	130	1.96	20	
Zinc	0.51	0.010	0.5000	0	101	70	130	1.84	20	

Sample ID	**1609453-001FMS**	SampType: **MS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**SMW-4**	Batch ID: **27612**			RunNo: **37678**					
Prep Date:	**9/20/2016**	Analysis Date: **10/4/2016**			SeqNo: **1173205**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	1.9	0.10	0.5000	1.631	60.2	70	130			S
Silver	0.027	0.025	0.1000	0	26.8	70	130			S

Sample ID	**1609453-001FMSD**	SampType: **MSD**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**SMW-4**	Batch ID: **27612**			RunNo: **37678**					
Prep Date:	**9/20/2016**	Analysis Date: **10/4/2016**			SeqNo: **1173206**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	2.1	0.10	0.5000	1.631	89.9	70	130	7.41	20	
Silver	0.027	0.025	0.1000	0	27.4	70	130	2.58	20	S

Sample ID	**1609453-001FPS**	SampType: **PS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**SMW-4**	Batch ID: **27612**			RunNo: **37678**					
Prep Date:		Analysis Date: **10/4/2016**			SeqNo: **1173207**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	4.2	0.10	2.500	1.631	103	85	115			
Silver	0.49	0.025	0.5000	0	97.4	85	115			

Sample ID	**MB-27933**	SampType: **MBLK**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID: **27933**			RunNo: **37917**					
Prep Date:	**10/6/2016**	Analysis Date: **10/12/2016**			SeqNo: **1181446**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID	**LLLCS-27933**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**BatchQC**	Batch ID:	**27933**		RunNo:	**37917**				
Prep Date:	**10/6/2016**	Analysis Date:	**10/12/2016**		SeqNo:	**1181447**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.0055	0.0050	0.005000	0	111	50	150			

Sample ID	**LCS-27933**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**LCSW**	Batch ID:	**27933**		RunNo:	**37917**				
Prep Date:	**10/6/2016**	Analysis Date:	**10/12/2016**		SeqNo:	**1181448**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.11	0.0050	0.1000	0	107	85	115			

Sample ID	**1609453-002FMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MW-1**	Batch ID:	**27933**		RunNo:	**37917**				
Prep Date:	**10/6/2016**	Analysis Date:	**10/12/2016**		SeqNo:	**1181453**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.030	0.0050	0.1000	0	30.2	70	130			S

Sample ID	**1609453-002FMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MW-1**	Batch ID:	**27933**		RunNo:	**37917**				
Prep Date:	**10/6/2016**	Analysis Date:	**10/12/2016**		SeqNo:	**1181454**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.032	0.0050	0.1000	0	31.9	70	130	5.51	20	S

Sample ID	**1609453-002PS**	SampType:	**PS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**BatchQC**	Batch ID:	**27933**		RunNo:	**37917**				
Prep Date:		Analysis Date:	**10/12/2016**		SeqNo:	**1181455**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.094	0.0050	0.1000	0	94.3	85	115			

Sample ID	**MB-27933**	SampType:	**MBLK**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**PBW**	Batch ID:	**27933**		RunNo:	**37801**				
Prep Date:	**10/6/2016**	Analysis Date:	**10/8/2016**		SeqNo:	**1186876**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID	**LCS-27933**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**LCSW**	Batch ID:	**27933**		RunNo:	**37801**				
Prep Date:	**10/6/2016**	Analysis Date:	**10/8/2016**		SeqNo:	**1186877**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	100	85	115			

Sample ID	**LLLCS-27933**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**BatchQC**	Batch ID:	**27933**		RunNo:	**37801**				
Prep Date:	**10/6/2016**	Analysis Date:	**10/8/2016**		SeqNo:	**1186878**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.0060	0.0050	0.005000	0	119	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID	**1609446-02AMSDLL**	SampType:	**MSD**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**BatchQC**	Batch ID:	**C37327**		RunNo:	**37327**				
Prep Date:		Analysis Date:	**9/20/2016**		SeqNo:	**1160730**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0.0001542	98.6	70	130	3.20	20	
Lead	0.013	0.00050	0.01250	0.0005561	99.9	70	130	0.672	20	
Selenium	0.026	0.0010	0.02500	0.001529	99.7	70	130	5.30	20	
Uranium	0.015	0.00050	0.01250	0.001591	103	70	130	0.746	20	

Sample ID	**LCS**	SampType:	**LCS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**LCSW**	Batch ID:	**C37327**		RunNo:	**37327**				
Prep Date:		Analysis Date:	**9/20/2016**		SeqNo:	**1160759**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	91.8	85	115			
Lead	0.012	0.00050	0.01250	0	95.4	85	115			
Selenium	0.023	0.0010	0.02500	0	92.7	85	115			
Uranium	0.012	0.00050	0.01250	0	96.1	85	115			

Sample ID	**LLLCS**	SampType:	**LCSLL**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**BatchQC**	Batch ID:	**C37327**		RunNo:	**37327**				
Prep Date:		Analysis Date:	**9/20/2016**		SeqNo:	**1160761**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00097	0.0010	0.001000	0	96.9	50	150			J
Lead	0.00051	0.00050	0.0005000	0	102	50	150			
Selenium	0.00094	0.0010	0.001000	0	93.5	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	98.8	50	150			J

Sample ID	**MB**	SampType:	**MBLK**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**PBW**	Batch ID:	**C37327**		RunNo:	**37327**				
Prep Date:		Analysis Date:	**9/20/2016**		SeqNo:	**1160763**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**LCS**	SampType:	**LCS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**LCSW**	Batch ID:	**A37386**		RunNo:	**37386**				
Prep Date:		Analysis Date:	**9/21/2016**		SeqNo:	**1162017**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A37386**	RunNo: **37386**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1162017** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.012	0.00050	0.01250	0	98.7	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A37386**	RunNo: **37386**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1162020** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.00049	0.00050	0.0005000	0	97.6	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A37386**	RunNo: **37386**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1162022** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID	**1609453-003FMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MW-2**	Batch ID:	**27612**		RunNo:	**37385**				
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161920**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.001278	92.8	70	130			
Lead	0.012	0.00050	0.01250	0	95.7	70	130			
Selenium	0.022	0.0010	0.02500	0.0005775	84.4	70	130			
Uranium	0.021	0.00050	0.01250	0.008825	94.7	70	130			

Sample ID	**1609453-004FMSDL**	SampType:	**MSDLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MW-5**	Batch ID:	**27612**		RunNo:	**37385**				
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161922**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0.001210	95.8	70	130	0.644	20	
Lead	0.013	0.00050	0.01250	0	100	70	130	1.04	20	
Selenium	0.023	0.0010	0.02500	0.0003786	89.6	70	130	1.05	20	
Uranium	0.023	0.00050	0.01250	0.009228	110	70	130	1.29	20	

Sample ID	**1609453-004FMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MW-5**	Batch ID:	**27612**		RunNo:	**37385**				
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161923**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0.001210	95.1	70	130			
Lead	0.012	0.00050	0.01250	0	99.0	70	130			
Selenium	0.023	0.0010	0.02500	0.0003786	90.6	70	130			
Uranium	0.023	0.00050	0.01250	0.009228	107	70	130			

Sample ID	**MB-27612**	SampType:	**MBLK**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**PBW**	Batch ID:	**27612**		RunNo:	**37385**				
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161947**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-27612**	SampType:	**LCS**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**LCSW**	Batch ID:	**27612**		RunNo:	**37385**				
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161950**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID	**MSLCS-27612**	SampType:	**LCS**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**LCSW**	Batch ID:	**27612**		RunNo:	**37385**				
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161950**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	92.8	85	115			
Lead	0.012	0.00050	0.01250	0	95.2	85	115			
Selenium	0.024	0.0010	0.02500	0	94.1	85	115			
Uranium	0.012	0.00050	0.01250	0	98.4	85	115			

Sample ID	**MSLLLCS-27612**	SampType:	**LCSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**BatchQC**	Batch ID:	**27612**		RunNo:	**37385**				
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161953**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	113	50	150			
Lead	0.00049	0.00050	0.0005000	0	98.4	50	150			J
Selenium	0.00094	0.0010	0.001000	0	94.4	50	150			J
Uranium	0.00050	0.00050	0.0005000	0	99.7	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID	**MB-27494**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**27494**	RunNo:	**37231**					
Prep Date:	**9/14/2016**	Analysis Date:	**9/15/2016**	SeqNo:	**1155489**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-27494**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**27494**	RunNo:	**37231**					
Prep Date:	**9/14/2016**	Analysis Date:	**9/15/2016**	SeqNo:	**1155490**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.4	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R37143**	RunNo: **37143**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151827** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R37143**	RunNo: **37143**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151828** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.8	0.50	5.000	0	96.3	90	110			
Bromide	2.4	0.10	2.500	0	97.2	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	99.0	90	110			
Sulfate	9.8	0.50	10.00	0	97.8	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R37294**	RunNo: **37294**
Prep Date:	Analysis Date: **9/17/2016**	SeqNo: **1157953** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R37294**	RunNo: **37294**
Prep Date:	Analysis Date: **9/17/2016**	SeqNo: **1157954** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.7	90	110			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **LCS-27430**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **27430**	RunNo: **37116**
Prep Date: **9/12/2016**	Analysis Date: **9/12/2016**	SeqNo: **1151166** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.0	1.0	5.000	0	121	63.2	155			
Surr: DNOP	0.55		0.5000		111	77.1	144			

Sample ID **MB-27430**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **27430**	RunNo: **37116**
Prep Date: **9/12/2016**	Analysis Date: **9/12/2016**	SeqNo: **1151167** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		108	77.1	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R37129**	RunNo: **37129**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151411** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.4	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.2	70	130			
Surr: Toluene-d8	9.7		10.00		96.9	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37129**	RunNo: **37129**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151412** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.1	70	130			
Surr: Dibromofluoromethane	10		10.00		99.9	70	130			
Surr: Toluene-d8	9.8		10.00		97.7	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R37339**	RunNo: **37339**
Prep Date:	Analysis Date: **9/20/2016**	SeqNo: **1159861** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Toluene	19	1.0	20.00	0	97.0	70	130			
Chlorobenzene	19	1.0	20.00	0	93.9	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	97.9	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	87.9	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.2	70	130			
Surr: Dibromofluoromethane	10		10.00		99.6	70	130			
Surr: Toluene-d8	10		10.00		99.7	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37339**	RunNo: **37339**
Prep Date:	Analysis Date: **9/20/2016**	SeqNo: **1159862** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37339**	RunNo: **37339**
Prep Date:	Analysis Date: **9/20/2016**	SeqNo: **1159862** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37339**	RunNo: **37339**
Prep Date:	Analysis Date: **9/20/2016**	SeqNo: **1159862** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.6	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.4	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID **1609453-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **SMW-4**	Batch ID: **R37339**	RunNo: **37339**
Prep Date:	Analysis Date: **9/20/2016**	SeqNo: **1159938** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	70	130			
Toluene	19	1.0	20.00	0	96.7	70	130			
Chlorobenzene	19	1.0	20.00	0	95.7	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	91.7	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	86.8	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.2	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID	**1609453-001ams**	SampType:	**MS**		TestCode:	**EPA Method 8260B: VOLATILES**				
Client ID:	**SMW-4**	Batch ID:	**R37339**		RunNo:	**37339**				
Prep Date:		Analysis Date:	**9/20/2016**		SeqNo:	**1159938**	Units:	**µg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Toluene-d8	9.9		10.00		99.1	70	130			

Sample ID	**1609453-001amsd**	SampType:	**MSD**		TestCode:	**EPA Method 8260B: VOLATILES**				
Client ID:	**SMW-4**	Batch ID:	**R37339**		RunNo:	**37339**				
Prep Date:		Analysis Date:	**9/20/2016**		SeqNo:	**1159939**	Units:	**µg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	70	130	0.261	20	
Toluene	19	1.0	20.00	0	93.9	70	130	2.95	20	
Chlorobenzene	19	1.0	20.00	0	96.1	70	130	0.485	20	
1,1-Dichloroethene	18	1.0	20.00	0	91.7	70	130	0.0709	20	
Trichloroethene (TCE)	16	1.0	20.00	0	80.6	70	130	7.39	20	
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130	0	0	
Surr: Dibromofluoromethane	10		10.00		102	70	130	0	0	
Surr: Toluene-d8	10		10.00		101	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **mb-27434**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **27434**	RunNo: **37197**
Prep Date: **9/12/2016**	Analysis Date: **9/14/2016**	SeqNo: **1154153** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	7.5	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	3.5	10								J
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	3.9	10								J
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	8.5	10								J
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **mb-27434**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **27434**	RunNo: **37197**
Prep Date: **9/12/2016**	Analysis Date: **9/14/2016**	SeqNo: **1154153** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	47		200.0		23.4	15	123			
Surr: Phenol-d5	43		200.0		21.4	4.13	124			
Surr: 2,4,6-Tribromophenol	80		200.0		40.0	18.4	134			
Surr: Nitrobenzene-d5	52		100.0		51.7	28.8	134			
Surr: 2-Fluorobiphenyl	44		100.0		43.5	35.9	125			
Surr: 4-Terphenyl-d14	32		100.0		32.4	15	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **lcsd-27434**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **27434**	RunNo: **37197**
Prep Date: **9/12/2016**	Analysis Date: **9/14/2016**	SeqNo: **1154155** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	66	10	100.0	0	66.5	35	113	28.0	0	
4-Chloro-3-methylphenol	110	10	200.0	0	54.2	40.7	114	27.1	0	
2-Chlorophenol	91	10	200.0	0	45.3	37.6	113	43.6	0	
1,4-Dichlorobenzene	42	10	100.0	0	41.6	37.7	106	36.7	0	
2,4-Dinitrotoluene	67	10	100.0	0	66.8	37	91	33.1	0	
N-Nitrosodi-n-propylamine	67	10	100.0	0	67.4	45.4	105	27.9	0	
4-Nitrophenol	90	10	200.0	0	45.2	33.4	104	6.84	0	
Pentachlorophenol	100	20	200.0	0	50.7	29.5	94.9	10.7	0	
Phenol	86	10	200.0	0	43.1	30.6	119	32.2	0	
Pyrene	70	10	100.0	0	70.3	26.2	120	28.0	0	
1,2,4-Trichlorobenzene	45	10	100.0	0	44.8	39.9	125	44.4	0	
Surr: 2-Fluorophenol	95		200.0		47.6	15	123	0	0	
Surr: Phenol-d5	110		200.0		53.5	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	130		200.0		66.9	18.4	134	0	0	
Surr: Nitrobenzene-d5	61		100.0		61.1	28.8	134	0	0	
Surr: 2-Fluorobiphenyl	69		100.0		69.0	35.9	125	0	0	
Surr: 4-Terphenyl-d14	61		100.0		60.5	15	146	0	0	

Sample ID **mb-27514**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **27514**	RunNo: **37269**
Prep Date: **9/15/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157088** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	130		200.0		64.9	15	123			
Surr: Phenol-d5	100		200.0		52.4	4.13	124			
Surr: 2,4,6-Tribromophenol	220		200.0		108	18.4	134			
Surr: Nitrobenzene-d5	85		100.0		84.6	28.8	134			
Surr: 2-Fluorobiphenyl	88		100.0		88.2	35.9	125			
Surr: 4-Terphenyl-d14	58		100.0		58.3	15	146			

Sample ID **lcs-27434**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **27434**	RunNo: **37269**
Prep Date: **9/12/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157089** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	88	10	100.0	0	88.1	35	113			
4-Chloro-3-methylphenol	140	10	200.0	0	71.2	40.7	114			
2-Chlorophenol	140	10	200.0	0	70.6	37.6	113			
1,4-Dichlorobenzene	60	10	100.0	0	60.2	37.7	106			
2,4-Dinitrotoluene	93	10	100.0	0	93.2	37	91			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **lcs-27434**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **27434**	RunNo: **37269**
Prep Date: **9/12/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157089** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Nitrosodi-n-propylamine	89	10	100.0	0	89.3	45.4	105			
4-Nitrophenol	84	10	200.0	0	42.2	33.4	104			
Pentachlorophenol	110	20	200.0	0	56.5	29.5	94.9			
Phenol	120	10	200.0	0	59.7	30.6	119			
Pyrene	93	10	100.0	0	93.3	26.2	120			
1,2,4-Trichlorobenzene	70	10	100.0	0	70.4	39.9	125			
Surr: 2-Fluorophenol	78		200.0		39.0	15	123			
Surr: Phenol-d5	82		200.0		41.1	4.13	124			
Surr: 2,4,6-Tribromophenol	120		200.0		58.5	18.4	134			
Surr: Nitrobenzene-d5	66		100.0		66.3	28.8	134			
Surr: 2-Fluorobiphenyl	65		100.0		64.7	35.9	125			
Surr: 4-Terphenyl-d14	52		100.0		51.6	15	146			

Sample ID **lcs-27514**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **27514**	RunNo: **37269**
Prep Date: **9/15/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157091** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	130		200.0		66.0	15	123			
Surr: Phenol-d5	140		200.0		69.3	4.13	124			
Surr: 2,4,6-Tribromophenol	180		200.0		89.4	18.4	134			
Surr: Nitrobenzene-d5	79		100.0		79.4	28.8	134			
Surr: 2-Fluorobiphenyl	77		100.0		76.8	35.9	125			
Surr: 4-Terphenyl-d14	56		100.0		55.7	15	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609453**

21-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G37129**	RunNo: **37129**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151489** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.52	0.050	0.5000	0	105	75.4	118			
Surr: BFB	10		10.00		103	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G37129**	RunNo: **37129**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151490** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.10								
Surr: BFB	9.5		10.00		94.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1609453** RcptNo: 1

Received by/date: AG 09/08/16

Logged By: **Ashley Gallegos** 9/8/2016 5:10:00 PM AG

Completed By: **Ashley Gallegos** 9/9/2016 12:29:12 PM AG

Reviewed By: JC 09/09/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 5 5 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? NO
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: AS

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address: **NOTE NEW ADDRESS**

92 GIANT CROSSING ROAD, GALLUP, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:

X Standard ☐ **Rush**_____

Project Name:

2016 ANNUAL

Project #:

SMW-4, MW-1, MW-2, MW-5, MW-4

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609453	8260+MTBE	8015D	8270C + PHENOLS	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	Major Cations/Anions	CYANIDE	Air Bubbles (Y or N)
9/7/2016	830	AQUEOUS	SMW-4			-001	X	X	X	X	X	X	X	
9/7/2016	1030	AQUEOUS	MW-1			-002	X	X	X	X	X	X	X	
9/7/2016	1400	AQUEOUS	MW-2			-003	X	X	X	X	X	X	X	
9/7/2016	1545	AQUEOUS	MW-5			-004	X	X	X	X	X	X	X	
9/7/2016	1740	AQUEOUS	MW-4			-005	X	X	X	X	X	X	X	
9/7/2016	700	AQUEOUS	FIELD BLANK			-006	X							
			TRIP BLANK			-007	X							

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time
9/7/16	1500			9/8/16	1500
9/8/16	1710			09/08/16	1710

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 17, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 3rd QTR (MKTF) OrderNo.: 1609418

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 7 sample(s) on 9/8/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB090716
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 9:15:00 AM
Lab ID: 1609418-001
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	9/13/2016 3:52:20 PM	27428
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/12/2016 3:58:22 PM	27430
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 3:58:22 PM	27430
Surr: DNOP	107	0	77.1-144		%Rec	1	9/12/2016 3:58:22 PM	27430
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.050	0.10		mg/L	1	9/12/2016 2:54:14 PM	R37143
Chloride	ND	0.051	0.50		mg/L	1	9/12/2016 2:54:14 PM	R37143
Bromide	ND	0.044	0.10		mg/L	1	9/12/2016 2:54:14 PM	R37143
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/12/2016 2:54:14 PM	R37143
Sulfate	ND	0.14	0.50		mg/L	1	9/12/2016 2:54:14 PM	R37143
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/21/2016 11:17:04 AM	R37377
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	ND	0.0013	0.0020		mg/L	1	9/16/2016 1:41:10 PM	B37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 1:41:10 PM	B37246
Calcium	ND	0.50	1.0		mg/L	1	9/16/2016 1:41:10 PM	B37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 1:41:10 PM	B37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 1:41:10 PM	B37246
Iron	ND	0.020	0.020		mg/L	1	9/16/2016 1:41:10 PM	B37246
Magnesium	ND	0.50	1.0		mg/L	1	9/16/2016 1:41:10 PM	B37246
Manganese	0.00044	0.00032	0.0020	J	mg/L	1	9/16/2016 1:41:10 PM	B37246
Potassium	ND	0.50	1.0		mg/L	1	9/16/2016 1:41:10 PM	B37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 1:41:10 PM	B37246
Sodium	ND	0.50	1.0		mg/L	1	9/16/2016 1:41:10 PM	B37246
Zinc	ND	0.0028	0.010		mg/L	1	9/16/2016 1:41:10 PM	B37246
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	ND	0.00079	0.0020		mg/L	1	9/19/2016 2:42:10 PM	27529
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 7:50:24 PM	27529
Chromium	ND	0.0027	0.0060		mg/L	1	9/19/2016 2:42:10 PM	27529
Copper	ND	0.0030	0.0060		mg/L	1	9/19/2016 2:42:10 PM	27529
Iron	ND	0.020	0.020		mg/L	1	9/29/2016 11:09:28 AM	27675
Manganese	ND	0.00027	0.0020		mg/L	1	9/19/2016 2:42:10 PM	27529
Silver	ND	0.0015	0.0050		mg/L	1	9/19/2016 2:42:10 PM	27529
Zinc	ND	0.0027	0.010		mg/L	1	9/19/2016 2:42:10 PM	27529
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	ND	0.00014	0.0010		mg/L	1	9/20/2016 2:14:58 PM	B37327
Lead	ND	0.00017	0.00050		mg/L	1	9/20/2016 2:14:58 PM	B37327

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

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Client Sample ID: FB090716
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 9:15:00 AM
Lab ID: 1609418-001 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Selenium	ND	0.00021	0.0010		mg/L	1	9/20/2016 2:14:58 PM	B37327
Uranium	ND	0.000051	0.00050		mg/L	1	9/20/2016 2:14:58 PM	B37327
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.00021	0.0010		mg/L	1	9/19/2016 4:26:09 PM	27529
Lead	ND	0.000081	0.00050		mg/L	1	9/19/2016 4:26:09 PM	27529
Selenium	ND	0.00019	0.0010		mg/L	1	9/19/2016 4:26:09 PM	27529
Uranium	ND	0.00017	0.00050		mg/L	1	9/19/2016 4:26:09 PM	27529
EPA METHOD 245.1: MERCURY							Analyst: **MED**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/15/2016 12:58:31 PM	27494
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Acenaphthylene	ND	2.4	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Aniline	ND	2.4	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Anthracene	ND	2.5	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Azobenzene	ND	2.7	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Benzoic acid	10	2.6	20	J	µg/L	1	9/14/2016 7:18:52 PM	27434
Benzyl alcohol	ND	3.0	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Bis(2-ethylhexyl)phthalate	4.1	2.6	10	J	µg/L	1	9/14/2016 7:18:52 PM	27434
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Carbazole	ND	2.3	10		µg/L	1	9/14/2016 7:18:52 PM	27434
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/14/2016 7:18:52 PM	27434
4-Chloroaniline	ND	2.7	10		µg/L	1	9/14/2016 7:18:52 PM	27434
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/14/2016 7:18:52 PM	27434
2-Chlorophenol	ND	2.2	10		µg/L	1	9/14/2016 7:18:52 PM	27434
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Chrysene	ND	2.8	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Di-n-octyl phthalate	4.5	2.0	10	J	µg/L	1	9/14/2016 7:18:52 PM	27434
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/14/2016 7:18:52 PM	27434

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Lab ID: 1609418-001
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenzofuran	ND	2.5	10		µg/L	1	9/14/2016 7:18:52 PM	27434
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/14/2016 7:18:52 PM	27434
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/14/2016 7:18:52 PM	27434
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/14/2016 7:18:52 PM	27434
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Diethyl phthalate	ND	2.7	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Dimethyl phthalate	6.8	2.4	10	J	µg/L	1	9/14/2016 7:18:52 PM	27434
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/14/2016 7:18:52 PM	27434
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/14/2016 7:18:52 PM	27434
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/14/2016 7:18:52 PM	27434
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/14/2016 7:18:52 PM	27434
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/14/2016 7:18:52 PM	27434
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Fluoranthene	ND	2.6	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Fluorene	ND	2.7	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Hexachloroethane	ND	2.4	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Isophorone	ND	2.6	10		µg/L	1	9/14/2016 7:18:52 PM	27434
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/14/2016 7:18:52 PM	27434
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/14/2016 7:18:52 PM	27434
2-Methylphenol	ND	2.5	10		µg/L	1	9/14/2016 7:18:52 PM	27434
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/14/2016 7:18:52 PM	27434
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/14/2016 7:18:52 PM	27434
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/14/2016 7:18:52 PM	27434
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Naphthalene	ND	2.6	10		µg/L	1	9/14/2016 7:18:52 PM	27434
2-Nitroaniline	ND	2.8	10		µg/L	1	9/14/2016 7:18:52 PM	27434
3-Nitroaniline	ND	2.9	10		µg/L	1	9/14/2016 7:18:52 PM	27434
4-Nitroaniline	ND	2.6	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Nitrobenzene	ND	2.8	10		µg/L	1	9/14/2016 7:18:52 PM	27434
2-Nitrophenol	ND	2.4	10		µg/L	1	9/14/2016 7:18:52 PM	27434
4-Nitrophenol	ND	2.6	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Pentachlorophenol	ND	2.3	20		µg/L	1	9/14/2016 7:18:52 PM	27434
Phenanthrene	ND	2.6	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Phenol	ND	2.0	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Pyrene	ND	3.1	10		µg/L	1	9/14/2016 7:18:52 PM	27434

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB090716
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 9:15:00 AM
Lab ID: 1609418-001 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyridine	ND	2.2	10		µg/L	1	9/14/2016 7:18:52 PM	27434
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/14/2016 7:18:52 PM	27434
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/14/2016 7:18:52 PM	27434
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/14/2016 7:18:52 PM	27434
Surr: 2-Fluorophenol	26.2	0	15-123		%Rec	1	9/14/2016 7:18:52 PM	27434
Surr: Phenol-d5	23.9	0	15-124		%Rec	1	9/14/2016 7:18:52 PM	27434
Surr: 2,4,6-Tribromophenol	36.8	0	18.4-134		%Rec	1	9/14/2016 7:18:52 PM	27434
Surr: Nitrobenzene-d5	56.0	0	28.8-134		%Rec	1	9/14/2016 7:18:52 PM	27434
Surr: 2-Fluorobiphenyl	53.8	0	35.9-125		%Rec	1	9/14/2016 7:18:52 PM	27434
Surr: 4-Terphenyl-d14	37.5	0	15-146		%Rec	1	9/14/2016 7:18:52 PM	27434
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Toluene	ND	0.12	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
1,2,4-Trimethylbenzene	0.21	0.11	1.0	J	µg/L	1	9/12/2016 4:29:25 PM	R37129
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Naphthalene	ND	0.093	2.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Acetone	ND	4.9	10		µg/L	1	9/12/2016 4:29:25 PM	R37129
Bromobenzene	ND	0.098	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Bromoform	ND	0.10	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Bromomethane	ND	0.78	3.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
2-Butanone	ND	0.74	10		µg/L	1	9/12/2016 4:29:25 PM	R37129
Carbon disulfide	ND	0.60	10		µg/L	1	9/12/2016 4:29:25 PM	R37129
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Chloroethane	ND	0.19	2.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Chloroform	ND	0.089	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Chloromethane	ND	0.21	3.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/12/2016 4:29:25 PM	R37129

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Dibromomethane	ND	0.12	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
2-Hexanone	ND	0.84	10		µg/L	1	9/12/2016 4:29:25 PM	R37129
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/12/2016 4:29:25 PM	R37129
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Styrene	ND	0.11	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/12/2016 4:29:25 PM	R37129
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/12/2016 4:29:25 PM	R37129
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	1	9/12/2016 4:29:25 PM	R37129
Surr: 4-Bromofluorobenzene	99.0	0	70-130		%Rec	1	9/12/2016 4:29:25 PM	R37129

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB090716
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 9:15:00 AM
Lab ID: 1609418-001 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: Dibromofluoromethane	102	0	70-130		%Rec	1	9/12/2016 4:29:25 PM	R37129
Surr: Toluene-d8	100	0	70-130		%Rec	1	9/12/2016 4:29:25 PM	R37129
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.045	0.015	0.050	J	mg/L	1	9/12/2016 4:29:25 PM	G37129
Surr: BFB	101	0	70-130		%Rec	1	9/12/2016 4:29:25 PM	G37129

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 9:45:00 AM
Lab ID: 1609418-002
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	0.031	0.0033	0.010		µg/L	1	9/13/2016 4:07:34 PM	27428
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	1.2	0.69	1.0		mg/L	1	9/12/2016 5:21:46 PM	27430
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 5:21:46 PM	27430
Surr: DNOP	111	0	77.1-144		%Rec	1	9/12/2016 5:21:46 PM	27430
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.050	0.10		mg/L	1	9/12/2016 4:08:43 PM	R37143
Chloride	630	2.5	25		mg/L	50	9/21/2016 4:56:33 AM	B37361
Bromide	ND	0.044	0.10		mg/L	1	9/12/2016 4:08:43 PM	R37143
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/12/2016 4:08:43 PM	R37143
Sulfate	51	2.8	10		mg/L	20	9/12/2016 4:21:08 PM	R37143
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/21/2016 11:41:52 AM	R37377
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.24	0.0013	0.0020		mg/L	1	9/16/2016 1:45:14 PM	B37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 1:45:14 PM	B37246
Calcium	110	2.5	5.0		mg/L	5	9/16/2016 1:47:13 PM	B37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 1:45:14 PM	B37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 1:45:14 PM	B37246
Iron	0.19	0.020	0.020		mg/L	1	9/16/2016 1:45:14 PM	B37246
Magnesium	19	0.50	1.0		mg/L	1	9/16/2016 1:45:14 PM	B37246
Manganese	1.9	0.0016	0.010	*	mg/L	5	9/16/2016 1:47:13 PM	B37246
Potassium	2.4	0.50	1.0		mg/L	1	9/16/2016 1:45:14 PM	B37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 1:45:14 PM	B37246
Sodium	550	5.0	10		mg/L	10	9/19/2016 3:55:44 PM	B37295
Zinc	0.0071	0.0028	0.010	J	mg/L	1	9/16/2016 1:45:14 PM	B37246
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.34	0.00079	0.0020		mg/L	1	9/19/2016 2:45:53 PM	27529
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 7:52:25 PM	27529
Chromium	ND	0.0027	0.0060		mg/L	1	9/19/2016 2:45:53 PM	27529
Copper	ND	0.0030	0.0060		mg/L	1	9/19/2016 2:45:53 PM	27529
Iron	3.9	0.10	0.10	*	mg/L	5	9/29/2016 11:11:26 AM	27675
Manganese	2.0	0.0014	0.010	*	mg/L	5	9/19/2016 2:53:24 PM	27529
Silver	ND	0.0015	0.0050		mg/L	1	9/19/2016 2:45:53 PM	27529
Zinc	0.0085	0.0027	0.010	J	mg/L	1	9/19/2016 2:45:53 PM	27529
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0035	0.00069	0.0050	J	mg/L	5	9/21/2016 7:40:17 PM	A37386
Lead	0.0015	0.00017	0.00050		mg/L	1	9/20/2016 2:18:01 PM	B37327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 9:45:00 AM
Lab ID: 1609418-002 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Selenium	0.0063	0.00021	0.0010		mg/L	1	9/20/2016 2:18:01 PM	B37327
Uranium	0.020	0.000051	0.00050		mg/L	1	9/20/2016 2:18:01 PM	B37327
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0048	0.0021	0.010	J	mg/L	10	9/19/2016 5:01:34 PM	27529
Lead	0.0089	0.000081	0.00050		mg/L	1	9/19/2016 4:29:10 PM	27529
Selenium	0.0075	0.0019	0.010	J	mg/L	10	9/19/2016 5:01:34 PM	27529
Uranium	0.023	0.00017	0.00050		mg/L	1	9/19/2016 4:29:10 PM	27529
EPA METHOD 245.1: MERCURY							Analyst: **MED**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/15/2016 1:04:48 PM	27494
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Acenaphthylene	ND	2.4	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Aniline	ND	2.4	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Anthracene	ND	2.5	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Azobenzene	ND	2.7	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Benzoic acid	10	2.6	20	J	µg/L	1	9/14/2016 7:47:19 PM	27434
Benzyl alcohol	ND	3.0	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Bis(2-ethylhexyl)phthalate	4.0	2.6	10	J	µg/L	1	9/14/2016 7:47:19 PM	27434
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Carbazole	ND	2.3	10		µg/L	1	9/14/2016 7:47:19 PM	27434
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/14/2016 7:47:19 PM	27434
4-Chloroaniline	ND	2.7	10		µg/L	1	9/14/2016 7:47:19 PM	27434
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/14/2016 7:47:19 PM	27434
2-Chlorophenol	ND	2.2	10		µg/L	1	9/14/2016 7:47:19 PM	27434
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Chrysene	ND	2.8	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Di-n-octyl phthalate	4.9	2.0	10	J	µg/L	1	9/14/2016 7:47:19 PM	27434
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/14/2016 7:47:19 PM	27434

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 9:45:00 AM
Lab ID: 1609418-002
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenzofuran	ND	2.5	10		µg/L	1	9/14/2016 7:47:19 PM	27434
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/14/2016 7:47:19 PM	27434
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/14/2016 7:47:19 PM	27434
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/14/2016 7:47:19 PM	27434
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Diethyl phthalate	ND	2.7	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Dimethyl phthalate	7.3	2.4	10	J	µg/L	1	9/14/2016 7:47:19 PM	27434
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/14/2016 7:47:19 PM	27434
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/14/2016 7:47:19 PM	27434
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/14/2016 7:47:19 PM	27434
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/14/2016 7:47:19 PM	27434
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/14/2016 7:47:19 PM	27434
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Fluoranthene	ND	2.6	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Fluorene	ND	2.7	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Hexachloroethane	ND	2.4	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Isophorone	ND	2.6	10		µg/L	1	9/14/2016 7:47:19 PM	27434
1-Methylnaphthalene	4.2	2.9	10	J	µg/L	1	9/14/2016 7:47:19 PM	27434
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/14/2016 7:47:19 PM	27434
2-Methylphenol	ND	2.5	10		µg/L	1	9/14/2016 7:47:19 PM	27434
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/14/2016 7:47:19 PM	27434
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/14/2016 7:47:19 PM	27434
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/14/2016 7:47:19 PM	27434
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Naphthalene	2.9	2.6	10	J	µg/L	1	9/14/2016 7:47:19 PM	27434
2-Nitroaniline	ND	2.8	10		µg/L	1	9/14/2016 7:47:19 PM	27434
3-Nitroaniline	ND	2.9	10		µg/L	1	9/14/2016 7:47:19 PM	27434
4-Nitroaniline	ND	2.6	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Nitrobenzene	ND	2.8	10		µg/L	1	9/14/2016 7:47:19 PM	27434
2-Nitrophenol	ND	2.4	10		µg/L	1	9/14/2016 7:47:19 PM	27434
4-Nitrophenol	ND	2.6	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Pentachlorophenol	ND	2.3	20		µg/L	1	9/14/2016 7:47:19 PM	27434
Phenanthrene	ND	2.6	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Phenol	ND	2.0	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Pyrene	ND	3.1	10		µg/L	1	9/14/2016 7:47:19 PM	27434

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 9:45:00 AM
Lab ID: 1609418-002 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyridine	ND	2.2	10		µg/L	1	9/14/2016 7:47:19 PM	27434
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/14/2016 7:47:19 PM	27434
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/14/2016 7:47:19 PM	27434
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/14/2016 7:47:19 PM	27434
Surr: 2-Fluorophenol	13.8	0	15-123	S	%Rec	1	9/14/2016 7:47:19 PM	27434
Surr: Phenol-d5	11.8	0	15-124	S	%Rec	1	9/14/2016 7:47:19 PM	27434
Surr: 2,4,6-Tribromophenol	31.5	0	18.4-134		%Rec	1	9/14/2016 7:47:19 PM	27434
Surr: Nitrobenzene-d5	41.1	0	28.8-134		%Rec	1	9/14/2016 7:47:19 PM	27434
Surr: 2-Fluorobiphenyl	32.5	0	35.9-125	S	%Rec	1	9/14/2016 7:47:19 PM	27434
Surr: 4-Terphenyl-d14	35.4	0	15-146		%Rec	1	9/14/2016 7:47:19 PM	27434
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	5300	19	200		µg/L	200	9/12/2016 4:58:14 PM	R37129
Toluene	21	2.4	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
Ethylbenzene	210	2.2	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
Methyl tert-butyl ether (MTBE)	170	4.2	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
1,2,4-Trimethylbenzene	9.3	2.2	20	J	µg/L	20	9/12/2016 5:27:02 PM	R37129
1,3,5-Trimethylbenzene	ND	2.3	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
1,2-Dichloroethane (EDC)	ND	2.3	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
1,2-Dibromoethane (EDB)	ND	2.2	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
Naphthalene	ND	1.9	40		µg/L	20	9/12/2016 5:27:02 PM	R37129
1-Methylnaphthalene	9.3	4.1	80	J	µg/L	20	9/12/2016 5:27:02 PM	R37129
2-Methylnaphthalene	ND	3.2	80		µg/L	20	9/12/2016 5:27:02 PM	R37129
Acetone	ND	98	200		µg/L	20	9/12/2016 5:27:02 PM	R37129
Bromobenzene	ND	2.0	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
Bromodichloromethane	ND	2.8	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
Bromoform	ND	2.0	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
Bromomethane	ND	16	60		µg/L	20	9/12/2016 5:27:02 PM	R37129
2-Butanone	ND	15	200		µg/L	20	9/12/2016 5:27:02 PM	R37129
Carbon disulfide	ND	12	200		µg/L	20	9/12/2016 5:27:02 PM	R37129
Carbon Tetrachloride	ND	2.2	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
Chlorobenzene	ND	2.3	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
Chloroethane	ND	3.8	40		µg/L	20	9/12/2016 5:27:02 PM	R37129
Chloroform	ND	1.8	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
Chloromethane	ND	4.3	60		µg/L	20	9/12/2016 5:27:02 PM	R37129
2-Chlorotoluene	ND	8.0	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
4-Chlorotoluene	ND	2.6	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
cis-1,2-DCE	27	2.5	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
cis-1,3-Dichloropropene	ND	2.1	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
1,2-Dibromo-3-chloropropane	ND	4.7	40		µg/L	20	9/12/2016 5:27:02 PM	R37129

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 9:45:00 AM
Lab ID: 1609418-002 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Dibromochloromethane	ND	1.7	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
Dibromomethane	ND	2.4	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
1,2-Dichlorobenzene	ND	8.0	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
1,3-Dichlorobenzene	ND	2.9	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
1,4-Dichlorobenzene	ND	2.9	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
Dichlorodifluoromethane	ND	7.1	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
1,1-Dichloroethane	94	2.2	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
1,1-Dichloroethene	42	2.1	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
1,2-Dichloropropane	ND	2.2	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
1,3-Dichloropropane	ND	3.1	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
2,2-Dichloropropane	ND	3.3	40		µg/L	20	9/12/2016 5:27:02 PM	R37129
1,1-Dichloropropene	ND	2.7	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
Hexachlorobutadiene	ND	4.0	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
2-Hexanone	ND	17	200		µg/L	20	9/12/2016 5:27:02 PM	R37129
Isopropylbenzene	35	2.1	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
4-Isopropyltoluene	ND	2.8	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
4-Methyl-2-pentanone	ND	8.6	200		µg/L	20	9/12/2016 5:27:02 PM	R37129
Methylene Chloride	ND	3.7	60		µg/L	20	9/12/2016 5:27:02 PM	R37129
n-Butylbenzene	15	3.2	60	J	µg/L	20	9/12/2016 5:27:02 PM	R37129
n-Propylbenzene	65	2.6	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
sec-Butylbenzene	11	2.5	20	J	µg/L	20	9/12/2016 5:27:02 PM	R37129
Styrene	ND	2.2	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
tert-Butylbenzene	ND	2.3	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
1,1,1,2-Tetrachloroethane	ND	2.2	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
1,1,2,2-Tetrachloroethane	ND	2.6	40		µg/L	20	9/12/2016 5:27:02 PM	R37129
Tetrachloroethene (PCE)	ND	3.0	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
trans-1,2-DCE	ND	8.0	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
trans-1,3-Dichloropropene	ND	2.1	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
1,2,3-Trichlorobenzene	ND	2.3	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
1,2,4-Trichlorobenzene	ND	2.7	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
1,1,1-Trichloroethane	3.5	1.8	20	J	µg/L	20	9/12/2016 5:27:02 PM	R37129
1,1,2-Trichloroethane	ND	2.5	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
Trichloroethene (TCE)	ND	3.5	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
Trichlorofluoromethane	ND	4.1	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
1,2,3-Trichloropropane	ND	4.0	40		µg/L	20	9/12/2016 5:27:02 PM	R37129
Vinyl chloride	ND	3.9	20		µg/L	20	9/12/2016 5:27:02 PM	R37129
Xylenes, Total	11	7.3	30	J	µg/L	20	9/12/2016 5:27:02 PM	R37129
Surr: 1,2-Dichloroethane-d4	96.3	0	70-130		%Rec	20	9/12/2016 5:27:02 PM	R37129
Surr: 4-Bromofluorobenzene	88.5	0	70-130		%Rec	20	9/12/2016 5:27:02 PM	R37129

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 9:45:00 AM
Lab ID: 1609418-002 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: Dibromofluoromethane	90.7	0	70-130		%Rec	20	9/12/2016 5:27:02 PM	R37129
Surr: Toluene-d8	95.9	0	70-130		%Rec	20	9/12/2016 5:27:02 PM	R37129
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	19	0.30	1.0		mg/L	20	9/12/2016 5:27:02 PM	G37129
Surr: BFB	99.9	0	70-130		%Rec	20	9/12/2016 5:27:02 PM	G37129

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 1:00:00 PM
Lab ID: 1609418-003 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/12/2016 5:49:38 PM	27430
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 5:49:38 PM	27430
Surr: DNOP	113	0	77.1-144		%Rec	1	9/12/2016 5:49:38 PM	27430
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.29	0.050	0.10		mg/L	1	9/12/2016 4:33:32 PM	R37143
Chloride	2600	10	100		mg/L	200	9/21/2016 5:08:57 AM	B37361
Bromide	1.4	0.87	2.0	J	mg/L	20	9/12/2016 4:45:56 PM	R37143
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/12/2016 4:33:32 PM	R37143
Sulfate	400	2.8	10		mg/L	20	9/12/2016 4:45:56 PM	R37143
Nitrate+Nitrite as N	ND	0.92	2.0		mg/L	10	9/21/2016 11:54:17 AM	R37377
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.067	0.0013	0.0020		mg/L	1	9/16/2016 1:49:12 PM	B37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 1:49:12 PM	B37246
Calcium	170	2.5	5.0		mg/L	5	9/16/2016 1:51:20 PM	B37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 1:49:12 PM	B37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 1:49:12 PM	B37246
Iron	0.083	0.020	0.020		mg/L	1	9/16/2016 1:49:12 PM	B37246
Magnesium	27	0.50	1.0		mg/L	1	9/16/2016 1:49:12 PM	B37246
Manganese	0.29	0.00032	0.0020	*	mg/L	1	9/16/2016 1:49:12 PM	B37246
Potassium	11	0.50	1.0		mg/L	1	9/16/2016 1:49:12 PM	B37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 1:49:12 PM	B37246
Sodium	1900	25	50		mg/L	50	9/19/2016 3:57:43 PM	B37295
Zinc	0.0034	0.0028	0.010	J	mg/L	1	9/16/2016 1:49:12 PM	B37246
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.12	0.00079	0.0020		mg/L	1	9/19/2016 2:55:26 PM	27529
Cadmium	ND	0.0015	0.0020		mg/L	1	9/21/2016 7:56:08 PM	27529
Chromium	0.0035	0.0027	0.0060	J	mg/L	1	9/19/2016 2:55:26 PM	27529
Copper	ND	0.0030	0.0060		mg/L	1	9/19/2016 2:55:26 PM	27529
Iron	3.7	0.10	0.10	*	mg/L	5	9/29/2016 11:13:22 AM	27675
Manganese	0.58	0.00027	0.0020	*	mg/L	1	9/19/2016 2:55:26 PM	27529
Silver	ND	0.0015	0.0050		mg/L	1	9/19/2016 2:55:26 PM	27529
Zinc	0.017	0.0027	0.010		mg/L	1	9/19/2016 2:55:26 PM	27529
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0030	0.00069	0.0050	J	mg/L	5	9/21/2016 7:43:20 PM	A37386
Lead	0.00063	0.00017	0.00050		mg/L	1	9/20/2016 2:21:05 PM	B37327
Selenium	0.0092	0.0021	0.010	J	mg/L	10	9/21/2016 7:46:23 PM	A37386
Uranium	0.055	0.00026	0.0025	*	mg/L	5	9/21/2016 7:43:20 PM	A37386

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 1:00:00 PM
Lab ID: 1609418-003
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0035	0.0011	0.0050	J	mg/L	5	9/19/2016 5:04:35 PM	27529
Lead	0.0051	0.000081	0.00050		mg/L	1	9/19/2016 4:32:10 PM	27529
Selenium	0.010	0.0037	0.020	J	mg/L	20	9/19/2016 5:07:35 PM	27529
Uranium	0.060	0.00087	0.0025	*	mg/L	5	9/19/2016 5:04:35 PM	27529
EPA METHOD 245.1: MERCURY							Analyst: **MED**	
Mercury	0.000062	0.000053	0.00020	J	mg/L	1	9/15/2016 1:06:55 PM	27494
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Acenaphthylene	ND	2.4	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Aniline	ND	2.4	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Anthracene	ND	2.5	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Azobenzene	ND	2.7	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Benzoic acid	9.8	2.6	20	J	µg/L	1	9/14/2016 8:15:37 PM	27434
Benzyl alcohol	ND	3.0	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Bis(2-ethylhexyl)phthalate	3.4	2.6	10	J	µg/L	1	9/14/2016 8:15:37 PM	27434
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Carbazole	ND	2.3	10		µg/L	1	9/14/2016 8:15:37 PM	27434
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/14/2016 8:15:37 PM	27434
4-Chloroaniline	ND	2.7	10		µg/L	1	9/14/2016 8:15:37 PM	27434
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/14/2016 8:15:37 PM	27434
2-Chlorophenol	ND	2.2	10		µg/L	1	9/14/2016 8:15:37 PM	27434
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Chrysene	ND	2.8	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Di-n-octyl phthalate	3.4	2.0	10	J	µg/L	1	9/14/2016 8:15:37 PM	27434
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Dibenzofuran	ND	2.5	10		µg/L	1	9/14/2016 8:15:37 PM	27434
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/14/2016 8:15:37 PM	27434
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/14/2016 8:15:37 PM	27434

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 1:00:00 PM
Lab ID: 1609418-003
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/14/2016 8:15:37 PM	27434
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Diethyl phthalate	ND	2.7	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Dimethyl phthalate	6.4	2.4	10	J	µg/L	1	9/14/2016 8:15:37 PM	27434
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/14/2016 8:15:37 PM	27434
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/14/2016 8:15:37 PM	27434
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/14/2016 8:15:37 PM	27434
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/14/2016 8:15:37 PM	27434
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/14/2016 8:15:37 PM	27434
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Fluoranthene	ND	2.6	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Fluorene	ND	2.7	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Hexachloroethane	ND	2.4	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Isophorone	ND	2.6	10		µg/L	1	9/14/2016 8:15:37 PM	27434
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/14/2016 8:15:37 PM	27434
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/14/2016 8:15:37 PM	27434
2-Methylphenol	ND	2.5	10		µg/L	1	9/14/2016 8:15:37 PM	27434
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/14/2016 8:15:37 PM	27434
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/14/2016 8:15:37 PM	27434
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/14/2016 8:15:37 PM	27434
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Naphthalene	ND	2.6	10		µg/L	1	9/14/2016 8:15:37 PM	27434
2-Nitroaniline	ND	2.8	10		µg/L	1	9/14/2016 8:15:37 PM	27434
3-Nitroaniline	ND	2.9	10		µg/L	1	9/14/2016 8:15:37 PM	27434
4-Nitroaniline	ND	2.6	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Nitrobenzene	ND	2.8	10		µg/L	1	9/14/2016 8:15:37 PM	27434
2-Nitrophenol	ND	2.4	10		µg/L	1	9/14/2016 8:15:37 PM	27434
4-Nitrophenol	ND	2.6	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Pentachlorophenol	ND	2.3	20		µg/L	1	9/14/2016 8:15:37 PM	27434
Phenanthrene	ND	2.6	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Phenol	ND	2.0	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Pyrene	ND	3.1	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Pyridine	ND	2.2	10		µg/L	1	9/14/2016 8:15:37 PM	27434
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/14/2016 8:15:37 PM	27434
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/14/2016 8:15:37 PM	27434

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 1:00:00 PM
Lab ID: 1609418-003 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/14/2016 8:15:37 PM	27434
Surr: 2-Fluorophenol	16.0	0	15-123		%Rec	1	9/14/2016 8:15:37 PM	27434
Surr: Phenol-d5	13.6	0	15-124	S	%Rec	1	9/14/2016 8:15:37 PM	27434
Surr: 2,4,6-Tribromophenol	31.1	0	18.4-134		%Rec	1	9/14/2016 8:15:37 PM	27434
Surr: Nitrobenzene-d5	46.5	0	28.8-134		%Rec	1	9/14/2016 8:15:37 PM	27434
Surr: 2-Fluorobiphenyl	33.7	0	35.9-125	S	%Rec	1	9/14/2016 8:15:37 PM	27434
Surr: 4-Terphenyl-d14	32.0	0	15-146		%Rec	1	9/14/2016 8:15:37 PM	27434
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	0.31	0.096	1.0	J	µg/L	1	9/12/2016 5:55:54 PM	R37129
Toluene	0.21	0.12	1.0	J	µg/L	1	9/12/2016 5:55:54 PM	R37129
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
Methyl tert-butyl ether (MTBE)	26	0.21	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
1,2,4-Trimethylbenzene	0.18	0.11	1.0	J	µg/L	1	9/12/2016 5:55:54 PM	R37129
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
1,2-Dichloroethane (EDC)	0.76	0.12	1.0	J	µg/L	1	9/12/2016 5:55:54 PM	R37129
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
Naphthalene	ND	0.093	2.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
Acetone	ND	4.9	10		µg/L	1	9/12/2016 5:55:54 PM	R37129
Bromobenzene	ND	0.098	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
Bromoform	ND	0.10	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
Bromomethane	ND	0.78	3.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
2-Butanone	ND	0.74	10		µg/L	1	9/12/2016 5:55:54 PM	R37129
Carbon disulfide	ND	0.60	10		µg/L	1	9/12/2016 5:55:54 PM	R37129
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
Chloroethane	ND	0.19	2.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
Chloroform	ND	0.089	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
Chloromethane	ND	0.21	3.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
cis-1,2-DCE	0.32	0.12	1.0	J	µg/L	1	9/12/2016 5:55:54 PM	R37129
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
Dibromomethane	ND	0.12	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 1:00:00 PM
Lab ID: 1609418-003 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
1,1-Dichloroethane	1.7	0.11	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
1,1-Dichloroethene	0.58	0.11	1.0	J	µg/L	1	9/12/2016 5:55:54 PM	R37129
1,2-Dichloropropane	0.41	0.11	1.0	J	µg/L	1	9/12/2016 5:55:54 PM	R37129
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
2-Hexanone	ND	0.84	10		µg/L	1	9/12/2016 5:55:54 PM	R37129
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/12/2016 5:55:54 PM	R37129
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
sec-Butylbenzene	0.31	0.12	1.0	J	µg/L	1	9/12/2016 5:55:54 PM	R37129
Styrene	ND	0.11	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/12/2016 5:55:54 PM	R37129
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/12/2016 5:55:54 PM	R37129
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	1	9/12/2016 5:55:54 PM	R37129
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	1	9/12/2016 5:55:54 PM	R37129
Surr: Dibromofluoromethane	103	0	70-130		%Rec	1	9/12/2016 5:55:54 PM	R37129
Surr: Toluene-d8	96.6	0	70-130		%Rec	1	9/12/2016 5:55:54 PM	R37129
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 1:00:00 PM
Lab ID: 1609418-003 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.068	0.015	0.050		mg/L	1	9/12/2016 5:55:54 PM	G37129
Surr: BFB	99.1	0	70-130		%Rec	1	9/12/2016 5:55:54 PM	G37129

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 2:35:00 PM
Lab ID: 1609418-004 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/12/2016 6:17:12 PM	27430
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 6:17:12 PM	27430
Surr: DNOP	111	0	77.1-144		%Rec	1	9/12/2016 6:17:12 PM	27430
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.85	0.050	0.10		mg/L	1	9/12/2016 4:58:21 PM	R37143
Chloride	81	1.0	10		mg/L	20	9/12/2016 5:10:46 PM	R37143
Bromide	0.34	0.044	0.10		mg/L	1	9/12/2016 4:58:21 PM	R37143
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/12/2016 4:58:21 PM	R37143
Sulfate	590	2.8	10		mg/L	20	9/12/2016 5:10:46 PM	R37143
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/21/2016 12:06:42 PM	R37377
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.037	0.0013	0.0020		mg/L	1	9/16/2016 1:59:29 PM	B37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 1:59:29 PM	B37246
Calcium	66	0.50	1.0		mg/L	1	9/16/2016 1:59:29 PM	B37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 1:59:29 PM	B37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 1:59:29 PM	B37246
Iron	0.073	0.020	0.020		mg/L	1	9/16/2016 1:59:29 PM	B37246
Magnesium	8.8	0.50	1.0		mg/L	1	9/16/2016 1:59:29 PM	B37246
Manganese	0.62	0.00032	0.0020	*	mg/L	1	9/16/2016 1:59:29 PM	B37246
Potassium	ND	0.50	1.0		mg/L	1	9/16/2016 1:59:29 PM	B37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 1:59:29 PM	B37246
Sodium	490	2.5	5.0		mg/L	5	9/16/2016 2:01:37 PM	B37246
Zinc	ND	0.0028	0.010		mg/L	1	9/16/2016 1:59:29 PM	B37246
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.13	0.00079	0.0020		mg/L	1	9/19/2016 2:59:23 PM	27529
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 1:52:06 PM	27675
Chromium	ND	0.0027	0.0060		mg/L	1	9/19/2016 2:59:23 PM	27529
Copper	0.0044	0.0030	0.0060	J	mg/L	1	9/19/2016 2:59:23 PM	27529
Iron	2.6	0.10	0.10	*	mg/L	5	9/29/2016 11:15:13 AM	27675
Manganese	0.52	0.00027	0.0020	*	mg/L	1	9/19/2016 2:59:23 PM	27529
Silver	ND	0.0015	0.0050		mg/L	1	9/19/2016 2:59:23 PM	27529
Zinc	0.0084	0.0027	0.010	J	mg/L	1	9/19/2016 2:59:23 PM	27529
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0018	0.00014	0.0010		mg/L	1	9/20/2016 2:24:08 PM	B37327
Lead	0.0021	0.00017	0.00050		mg/L	1	9/20/2016 2:24:08 PM	B37327
Selenium	0.0023	0.00021	0.0010		mg/L	1	9/20/2016 2:24:08 PM	B37327
Uranium	0.012	0.000051	0.00050		mg/L	1	9/20/2016 2:24:08 PM	B37327

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 2:35:00 PM
Lab ID: 1609418-004 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0018	0.00021	0.0010		mg/L	1	9/19/2016 4:35:10 PM	27529
Lead	0.0028	0.000081	0.00050		mg/L	1	9/19/2016 4:35:10 PM	27529
Selenium	0.0022	0.00094	0.0050	J	mg/L	5	9/19/2016 5:10:36 PM	27529
Uranium	0.011	0.00017	0.00050		mg/L	1	9/19/2016 4:35:10 PM	27529
EPA METHOD 245.1: MERCURY							Analyst: **MED**	
Mercury	0.000066	0.000053	0.00020	J	mg/L	1	9/15/2016 1:09:01 PM	27494
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Acenaphthylene	ND	2.4	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Aniline	ND	2.4	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Anthracene	ND	2.5	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Azobenzene	ND	2.7	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Benz(a)anthracene	2.9	2.6	10	J	µg/L	1	9/14/2016 8:44:02 PM	27434
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Benzoic acid	11	2.6	20	J	µg/L	1	9/14/2016 8:44:02 PM	27434
Benzyl alcohol	ND	3.0	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Bis(2-ethylhexyl)phthalate	3.7	2.6	10	J	µg/L	1	9/14/2016 8:44:02 PM	27434
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Carbazole	ND	2.3	10		µg/L	1	9/14/2016 8:44:02 PM	27434
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/14/2016 8:44:02 PM	27434
4-Chloroaniline	ND	2.7	10		µg/L	1	9/14/2016 8:44:02 PM	27434
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/14/2016 8:44:02 PM	27434
2-Chlorophenol	ND	2.2	10		µg/L	1	9/14/2016 8:44:02 PM	27434
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Chrysene	ND	2.8	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Di-n-octyl phthalate	3.7	2.0	10	J	µg/L	1	9/14/2016 8:44:02 PM	27434
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Dibenzofuran	ND	2.5	10		µg/L	1	9/14/2016 8:44:02 PM	27434
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/14/2016 8:44:02 PM	27434
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/14/2016 8:44:02 PM	27434

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 2:35:00 PM
Lab ID: 1609418-004
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/14/2016 8:44:02 PM	27434
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Diethyl phthalate	ND	2.7	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Dimethyl phthalate	6.5	2.4	10	J	µg/L	1	9/14/2016 8:44:02 PM	27434
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/14/2016 8:44:02 PM	27434
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/14/2016 8:44:02 PM	27434
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/14/2016 8:44:02 PM	27434
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/14/2016 8:44:02 PM	27434
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/14/2016 8:44:02 PM	27434
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Fluoranthene	ND	2.6	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Fluorene	ND	2.7	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Hexachloroethane	ND	2.4	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Isophorone	ND	2.6	10		µg/L	1	9/14/2016 8:44:02 PM	27434
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/14/2016 8:44:02 PM	27434
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/14/2016 8:44:02 PM	27434
2-Methylphenol	ND	2.5	10		µg/L	1	9/14/2016 8:44:02 PM	27434
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/14/2016 8:44:02 PM	27434
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/14/2016 8:44:02 PM	27434
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/14/2016 8:44:02 PM	27434
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Naphthalene	ND	2.6	10		µg/L	1	9/14/2016 8:44:02 PM	27434
2-Nitroaniline	ND	2.8	10		µg/L	1	9/14/2016 8:44:02 PM	27434
3-Nitroaniline	ND	2.9	10		µg/L	1	9/14/2016 8:44:02 PM	27434
4-Nitroaniline	ND	2.6	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Nitrobenzene	ND	2.8	10		µg/L	1	9/14/2016 8:44:02 PM	27434
2-Nitrophenol	ND	2.4	10		µg/L	1	9/14/2016 8:44:02 PM	27434
4-Nitrophenol	ND	2.6	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Pentachlorophenol	ND	2.3	20		µg/L	1	9/14/2016 8:44:02 PM	27434
Phenanthrene	ND	2.6	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Phenol	ND	2.0	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Pyrene	ND	3.1	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Pyridine	ND	2.2	10		µg/L	1	9/14/2016 8:44:02 PM	27434
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/14/2016 8:44:02 PM	27434
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/14/2016 8:44:02 PM	27434

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 2:35:00 PM
Lab ID: 1609418-004 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/14/2016 8:44:02 PM	27434
Surr: 2-Fluorophenol	20.3	0	15-123		%Rec	1	9/14/2016 8:44:02 PM	27434
Surr: Phenol-d5	17.5	0	15-124		%Rec	1	9/14/2016 8:44:02 PM	27434
Surr: 2,4,6-Tribromophenol	33.7	0	18.4-134		%Rec	1	9/14/2016 8:44:02 PM	27434
Surr: Nitrobenzene-d5	50.0	0	28.8-134		%Rec	1	9/14/2016 8:44:02 PM	27434
Surr: 2-Fluorobiphenyl	40.6	0	35.9-125		%Rec	1	9/14/2016 8:44:02 PM	27434
Surr: 4-Terphenyl-d14	32.1	0	15-146		%Rec	1	9/14/2016 8:44:02 PM	27434
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Toluene	ND	0.12	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Methyl tert-butyl ether (MTBE)	2.4	0.21	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Naphthalene	ND	0.093	2.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Acetone	ND	4.9	10		µg/L	1	9/12/2016 6:24:36 PM	R37129
Bromobenzene	ND	0.098	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Bromoform	ND	0.10	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Bromomethane	ND	0.78	3.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
2-Butanone	ND	0.74	10		µg/L	1	9/12/2016 6:24:36 PM	R37129
Carbon disulfide	ND	0.60	10		µg/L	1	9/12/2016 6:24:36 PM	R37129
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Chloroethane	ND	0.19	2.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Chloroform	ND	0.089	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Chloromethane	ND	0.21	3.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Dibromomethane	ND	0.12	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 2:35:00 PM
Lab ID: 1609418-004 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
2-Hexanone	ND	0.84	10		µg/L	1	9/12/2016 6:24:36 PM	R37129
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/12/2016 6:24:36 PM	R37129
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Styrene	ND	0.11	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/12/2016 6:24:36 PM	R37129
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/12/2016 6:24:36 PM	R37129
Surr: 1,2-Dichloroethane-d4	99.6	0	70-130		%Rec	1	9/12/2016 6:24:36 PM	R37129
Surr: 4-Bromofluorobenzene	100	0	70-130		%Rec	1	9/12/2016 6:24:36 PM	R37129
Surr: Dibromofluoromethane	101	0	70-130		%Rec	1	9/12/2016 6:24:36 PM	R37129
Surr: Toluene-d8	97.9	0	70-130		%Rec	1	9/12/2016 6:24:36 PM	R37129
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 2:35:00 PM
Lab ID: 1609418-004 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.029	0.015	0.050	J	mg/L	1	9/12/2016 6:24:36 PM	G37129
Surr: BFB	98.7	0	70-130		%Rec	1	9/12/2016 6:24:36 PM	G37129

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-02
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 3:45:00 PM
Lab ID: 1609418-005 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	0.017	0.0033	0.010		µg/L	1	9/13/2016 4:22:51 PM	27428
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	1.5	0.69	1.0		mg/L	1	9/12/2016 6:44:48 PM	27430
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 6:44:48 PM	27430
Surr: DNOP	109	0	77.1-144		%Rec	1	9/12/2016 6:44:48 PM	27430
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	2.3	0.050	0.10		mg/L	1	9/12/2016 5:23:10 PM	R37143
Chloride	410	2.5	25		mg/L	50	9/21/2016 5:21:22 AM	B37361
Bromide	ND	0.044	0.10		mg/L	1	9/12/2016 5:23:10 PM	R37143
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/12/2016 5:23:10 PM	R37143
Sulfate	48	0.14	0.50		mg/L	1	9/12/2016 5:23:10 PM	R37143
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/21/2016 12:19:07 PM	R37377
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.16	0.0013	0.0020		mg/L	1	9/16/2016 2:03:34 PM	B37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 2:03:34 PM	B37246
Calcium	61	0.50	1.0		mg/L	1	9/16/2016 2:03:34 PM	B37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 2:03:34 PM	B37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 2:03:34 PM	B37246
Iron	0.045	0.020	0.020		mg/L	1	9/16/2016 2:03:34 PM	B37246
Magnesium	9.9	0.50	1.0		mg/L	1	9/16/2016 2:03:34 PM	B37246
Manganese	0.39	0.00032	0.0020	*	mg/L	1	9/16/2016 2:03:34 PM	B37246
Potassium	2.6	0.50	1.0		mg/L	1	9/16/2016 2:03:34 PM	B37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 2:03:34 PM	B37246
Sodium	620	5.0	10		mg/L	10	9/19/2016 3:59:34 PM	B37295
Zinc	0.0035	0.0028	0.010	J	mg/L	1	9/16/2016 2:03:34 PM	B37246
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.32	0.00079	0.0020		mg/L	1	9/19/2016 3:03:16 PM	27529
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 1:54:01 PM	27675
Chromium	0.0054	0.0027	0.0060	J	mg/L	1	9/19/2016 3:03:16 PM	27529
Copper	0.0038	0.0030	0.0060	J	mg/L	1	9/19/2016 3:03:16 PM	27529
Iron	5.9	0.20	0.20	*	mg/L	10	9/29/2016 11:17:01 AM	27675
Manganese	0.65	0.00027	0.0020	*	mg/L	1	9/19/2016 3:03:16 PM	27529
Silver	ND	0.0015	0.0050		mg/L	1	9/19/2016 3:03:16 PM	27529
Zinc	0.018	0.0027	0.010		mg/L	1	9/19/2016 3:03:16 PM	27529
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0029	0.00069	0.0050	J	mg/L	5	9/21/2016 7:49:27 PM	A37386
Lead	0.0015	0.00017	0.00050		mg/L	1	9/20/2016 2:27:11 PM	B37327

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-02
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 3:45:00 PM
Lab ID: 1609418-005 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Selenium	0.0061	0.0011	0.0050		mg/L	5	9/21/2016 7:49:27 PM	A37386
Uranium	0.035	0.00026	0.0025	*	mg/L	5	9/21/2016 7:49:27 PM	A37386
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0041	0.00021	0.0010		mg/L	1	9/19/2016 4:38:11 PM	27529
Lead	0.0089	0.000081	0.00050		mg/L	1	9/19/2016 4:38:11 PM	27529
Selenium	0.0064	0.00019	0.0010		mg/L	1	9/19/2016 4:38:11 PM	27529
Uranium	0.038	0.00087	0.0025	*	mg/L	5	9/19/2016 5:13:36 PM	27529
EPA METHOD 245.1: MERCURY							Analyst: **MED**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/15/2016 1:15:21 PM	27494
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Acenaphthylene	ND	2.4	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Aniline	ND	2.4	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Anthracene	ND	2.5	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Azobenzene	ND	2.7	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Benz(a)anthracene	2.8	2.6	10	J	µg/L	1	9/14/2016 9:12:15 PM	27434
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Benzoic acid	8.3	2.6	20	J	µg/L	1	9/14/2016 9:12:15 PM	27434
Benzyl alcohol	ND	3.0	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Bis(2-ethylhexyl)phthalate	4.3	2.6	10	J	µg/L	1	9/14/2016 9:12:15 PM	27434
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Carbazole	ND	2.3	10		µg/L	1	9/14/2016 9:12:15 PM	27434
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/14/2016 9:12:15 PM	27434
4-Chloroaniline	ND	2.7	10		µg/L	1	9/14/2016 9:12:15 PM	27434
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/14/2016 9:12:15 PM	27434
2-Chlorophenol	ND	2.2	10		µg/L	1	9/14/2016 9:12:15 PM	27434
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Chrysene	ND	2.8	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Di-n-octyl phthalate	3.4	2.0	10	J	µg/L	1	9/14/2016 9:12:15 PM	27434
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/14/2016 9:12:15 PM	27434

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-02
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 3:45:00 PM
Lab ID: 1609418-005 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenzofuran	ND	2.5	10		µg/L	1	9/14/2016 9:12:15 PM	27434
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/14/2016 9:12:15 PM	27434
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/14/2016 9:12:15 PM	27434
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/14/2016 9:12:15 PM	27434
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Diethyl phthalate	ND	2.7	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Dimethyl phthalate	5.4	2.4	10	J	µg/L	1	9/14/2016 9:12:15 PM	27434
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/14/2016 9:12:15 PM	27434
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/14/2016 9:12:15 PM	27434
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/14/2016 9:12:15 PM	27434
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/14/2016 9:12:15 PM	27434
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/14/2016 9:12:15 PM	27434
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Fluoranthene	ND	2.6	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Fluorene	ND	2.7	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Hexachloroethane	ND	2.4	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Isophorone	ND	2.6	10		µg/L	1	9/14/2016 9:12:15 PM	27434
1-Methylnaphthalene	8.2	2.9	10	J	µg/L	1	9/14/2016 9:12:15 PM	27434
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/14/2016 9:12:15 PM	27434
2-Methylphenol	ND	2.5	10		µg/L	1	9/14/2016 9:12:15 PM	27434
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/14/2016 9:12:15 PM	27434
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/14/2016 9:12:15 PM	27434
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/14/2016 9:12:15 PM	27434
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Naphthalene	5.1	2.6	10	J	µg/L	1	9/14/2016 9:12:15 PM	27434
2-Nitroaniline	ND	2.8	10		µg/L	1	9/14/2016 9:12:15 PM	27434
3-Nitroaniline	ND	2.9	10		µg/L	1	9/14/2016 9:12:15 PM	27434
4-Nitroaniline	ND	2.6	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Nitrobenzene	ND	2.8	10		µg/L	1	9/14/2016 9:12:15 PM	27434
2-Nitrophenol	ND	2.4	10		µg/L	1	9/14/2016 9:12:15 PM	27434
4-Nitrophenol	ND	2.6	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Pentachlorophenol	ND	2.3	20		µg/L	1	9/14/2016 9:12:15 PM	27434
Phenanthrene	ND	2.6	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Phenol	6.7	2.0	10	J	µg/L	1	9/14/2016 9:12:15 PM	27434
Pyrene	ND	3.1	10		µg/L	1	9/14/2016 9:12:15 PM	27434

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-02
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 3:45:00 PM
Lab ID: 1609418-005 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyridine	ND	2.2	10		µg/L	1	9/14/2016 9:12:15 PM	27434
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/14/2016 9:12:15 PM	27434
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/14/2016 9:12:15 PM	27434
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/14/2016 9:12:15 PM	27434
Surr: 2-Fluorophenol	21.6	0	15-123		%Rec	1	9/14/2016 9:12:15 PM	27434
Surr: Phenol-d5	19.8	0	15-124		%Rec	1	9/14/2016 9:12:15 PM	27434
Surr: 2,4,6-Tribromophenol	40.6	0	18.4-134		%Rec	1	9/14/2016 9:12:15 PM	27434
Surr: Nitrobenzene-d5	55.4	0	28.8-134		%Rec	1	9/14/2016 9:12:15 PM	27434
Surr: 2-Fluorobiphenyl	44.2	0	35.9-125		%Rec	1	9/14/2016 9:12:15 PM	27434
Surr: 4-Terphenyl-d14	34.4	0	15-146		%Rec	1	9/14/2016 9:12:15 PM	27434
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	1800	9.6	100		µg/L	100	9/13/2016 11:21:01 AM	R37165
Toluene	17	0.12	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
Ethylbenzene	160	1.1	10		µg/L	10	9/12/2016 6:53:22 PM	R37129
Methyl tert-butyl ether (MTBE)	110	0.21	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
1,2,4-Trimethylbenzene	39	1.1	10		µg/L	10	9/12/2016 6:53:22 PM	R37129
1,3,5-Trimethylbenzene	ND	1.2	10		µg/L	10	9/12/2016 6:53:22 PM	R37129
1,2-Dichloroethane (EDC)	3.9	0.12	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
Naphthalene	10	0.93	20	J	µg/L	10	9/12/2016 6:53:22 PM	R37129
1-Methylnaphthalene	12	2.0	40	J	µg/L	10	9/12/2016 6:53:22 PM	R37129
2-Methylnaphthalene	ND	1.6	40		µg/L	10	9/12/2016 6:53:22 PM	R37129
Acetone	10	4.9	10		µg/L	1	9/12/2016 7:22:10 PM	R37129
Bromobenzene	ND	0.98	10		µg/L	10	9/12/2016 6:53:22 PM	R37129
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
Bromoform	ND	1.0	10		µg/L	10	9/12/2016 6:53:22 PM	R37129
Bromomethane	ND	0.78	3.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
2-Butanone	3.6	0.74	10	J	µg/L	1	9/12/2016 7:22:10 PM	R37129
Carbon disulfide	ND	0.60	10		µg/L	1	9/12/2016 7:22:10 PM	R37129
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
Chloroethane	ND	0.19	2.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
Chloroform	ND	0.089	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
Chloromethane	ND	0.21	3.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
2-Chlorotoluene	ND	4.0	10		µg/L	10	9/12/2016 6:53:22 PM	R37129
4-Chlorotoluene	ND	1.3	10		µg/L	10	9/12/2016 6:53:22 PM	R37129
cis-1,2-DCE	15	0.12	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	9/12/2016 6:53:22 PM	R37129

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-02
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 3:45:00 PM
Lab ID: 1609418-005 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
Dibromomethane	ND	0.12	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	9/12/2016 6:53:22 PM	R37129
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	9/12/2016 6:53:22 PM	R37129
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	9/12/2016 6:53:22 PM	R37129
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
1,1-Dichloroethane	48	0.11	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
1,1-Dichloroethene	19	0.11	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
Hexachlorobutadiene	ND	2.0	10		µg/L	10	9/12/2016 6:53:22 PM	R37129
2-Hexanone	ND	0.84	10		µg/L	1	9/12/2016 7:22:10 PM	R37129
Isopropylbenzene	12	1.0	10		µg/L	10	9/12/2016 6:53:22 PM	R37129
4-Isopropyltoluene	ND	1.4	10		µg/L	10	9/12/2016 6:53:22 PM	R37129
4-Methyl-2-pentanone	0.98	0.43	10	J	µg/L	1	9/12/2016 7:22:10 PM	R37129
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
n-Butylbenzene	ND	1.6	30		µg/L	10	9/12/2016 6:53:22 PM	R37129
n-Propylbenzene	25	1.3	10		µg/L	10	9/12/2016 6:53:22 PM	R37129
sec-Butylbenzene	3.2	1.2	10	J	µg/L	10	9/12/2016 6:53:22 PM	R37129
Styrene	0.59	0.11	1.0	J	µg/L	1	9/12/2016 7:22:10 PM	R37129
tert-Butylbenzene	ND	1.2	10		µg/L	10	9/12/2016 6:53:22 PM	R37129
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	9/12/2016 6:53:22 PM	R37129
Tetrachloroethene (PCE)	0.28	0.15	1.0	J	µg/L	1	9/12/2016 7:22:10 PM	R37129
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	9/12/2016 6:53:22 PM	R37129
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	9/12/2016 6:53:22 PM	R37129
1,1,1-Trichloroethane	0.61	0.091	1.0	J	µg/L	1	9/12/2016 7:22:10 PM	R37129
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
Trichloroethene (TCE)	2.5	0.18	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	9/12/2016 6:53:22 PM	R37129
Vinyl chloride	1.1	0.20	1.0		µg/L	1	9/12/2016 7:22:10 PM	R37129
Xylenes, Total	28	0.37	1.5		µg/L	1	9/12/2016 7:22:10 PM	R37129
Surr: 1,2-Dichloroethane-d4	95.2	0	70-130		%Rec	1	9/12/2016 7:22:10 PM	R37129
Surr: 4-Bromofluorobenzene	91.1	0	70-130		%Rec	10	9/12/2016 6:53:22 PM	R37129

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-02
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 3:45:00 PM
Lab ID: 1609418-005 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: Dibromofluoromethane	95.1	0	70-130		%Rec	1	9/12/2016 7:22:10 PM	R37129
Surr: Toluene-d8	97.1	0	70-130		%Rec	1	9/12/2016 7:22:10 PM	R37129
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	6.2	0.15	0.50		mg/L	10	9/12/2016 6:53:22 PM	G37129
Surr: BFB	102	0	70-130		%Rec	10	9/12/2016 6:53:22 PM	G37129

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-30
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 4:15:00 PM
Lab ID: 1609418-006 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	9/13/2016 4:38:07 PM	27428
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/12/2016 7:12:31 PM	27430
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 7:12:31 PM	27430
Surr: DNOP	111	0	77.1-144		%Rec	1	9/12/2016 7:12:31 PM	27430
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.79	0.050	0.10		mg/L	1	9/12/2016 6:12:49 PM	R37143
Chloride	970	5.1	50		mg/L	100	9/21/2016 5:33:46 AM	B37361
Bromide	1.0	0.044	0.10		mg/L	1	9/12/2016 6:12:49 PM	R37143
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/12/2016 6:12:49 PM	R37143
Sulfate	330	2.8	10		mg/L	20	9/12/2016 6:25:13 PM	R37143
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/21/2016 12:31:32 PM	R37377
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.046	0.0013	0.0020		mg/L	1	9/16/2016 2:07:28 PM	B37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 2:07:28 PM	B37246
Calcium	87	0.50	1.0		mg/L	1	9/16/2016 2:07:28 PM	B37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 2:07:28 PM	B37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 2:07:28 PM	B37246
Iron	ND	0.020	0.020		mg/L	1	9/16/2016 2:07:28 PM	B37246
Magnesium	17	0.50	1.0		mg/L	1	9/16/2016 2:07:28 PM	B37246
Manganese	0.053	0.00032	0.0020	*	mg/L	1	9/16/2016 2:07:28 PM	B37246
Potassium	0.63	0.50	1.0	J	mg/L	1	9/16/2016 2:07:28 PM	B37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 2:07:28 PM	B37246
Sodium	930	5.0	10		mg/L	10	9/19/2016 4:10:37 PM	B37295
Zinc	0.0048	0.0028	0.010	J	mg/L	1	9/16/2016 2:07:28 PM	B37246
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.074	0.00079	0.0020		mg/L	1	9/19/2016 3:06:48 PM	27529
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 1:55:50 PM	27675
Chromium	ND	0.0027	0.0060		mg/L	1	9/19/2016 3:06:48 PM	27529
Copper	ND	0.0030	0.0060		mg/L	1	9/19/2016 3:06:48 PM	27529
Iron	1.7	0.10	0.10	*	mg/L	5	9/29/2016 12:45:45 PM	27675
Manganese	0.18	0.00027	0.0020	*	mg/L	1	9/19/2016 3:06:48 PM	27529
Silver	ND	0.0015	0.0050		mg/L	1	9/19/2016 3:06:48 PM	27529
Zinc	0.0063	0.0027	0.010	J	mg/L	1	9/19/2016 3:06:48 PM	27529
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0026	0.00069	0.0050	J	mg/L	5	9/21/2016 7:52:30 PM	A37386
Lead	0.022	0.00017	0.00050	*	mg/L	1	9/20/2016 2:30:15 PM	B37327

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-30
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 4:15:00 PM
Lab ID: 1609418-006 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Selenium	0.0076	0.0011	0.0050		mg/L	5	9/21/2016 7:52:30 PM	A37386
Uranium	0.026	0.00026	0.0025		mg/L	5	9/21/2016 7:52:30 PM	A37386
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0024	0.0011	0.0050	J	mg/L	5	9/19/2016 5:16:36 PM	27529
Lead	0.0039	0.000081	0.00050		mg/L	1	9/19/2016 4:41:11 PM	27529
Selenium	0.0081	0.0019	0.010	J	mg/L	10	9/19/2016 5:19:37 PM	27529
Uranium	0.027	0.00087	0.0025		mg/L	5	9/19/2016 5:16:36 PM	27529
EPA METHOD 245.1: MERCURY							Analyst: **MED**	
Mercury	0.000068	0.000053	0.00020	J	mg/L	1	9/15/2016 1:17:28 PM	27494
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Acenaphthylene	ND	2.4	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Aniline	ND	2.4	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Anthracene	ND	2.5	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Azobenzene	ND	2.7	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Benzoic acid	7.2	2.6	20	J	µg/L	1	9/14/2016 9:40:31 PM	27434
Benzyl alcohol	ND	3.0	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Bis(2-ethylhexyl)phthalate	3.4	2.6	10	J	µg/L	1	9/14/2016 9:40:31 PM	27434
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Carbazole	ND	2.3	10		µg/L	1	9/14/2016 9:40:31 PM	27434
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/14/2016 9:40:31 PM	27434
4-Chloroaniline	ND	2.7	10		µg/L	1	9/14/2016 9:40:31 PM	27434
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/14/2016 9:40:31 PM	27434
2-Chlorophenol	ND	2.2	10		µg/L	1	9/14/2016 9:40:31 PM	27434
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Chrysene	ND	2.8	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Di-n-octyl phthalate	3.5	2.0	10	J	µg/L	1	9/14/2016 9:40:31 PM	27434
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/14/2016 9:40:31 PM	27434

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-30
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 4:15:00 PM
Lab ID: 1609418-006 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenzofuran	ND	2.5	10		µg/L	1	9/14/2016 9:40:31 PM	27434
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/14/2016 9:40:31 PM	27434
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/14/2016 9:40:31 PM	27434
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/14/2016 9:40:31 PM	27434
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Diethyl phthalate	ND	2.7	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Dimethyl phthalate	5.9	2.4	10	J	µg/L	1	9/14/2016 9:40:31 PM	27434
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/14/2016 9:40:31 PM	27434
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/14/2016 9:40:31 PM	27434
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/14/2016 9:40:31 PM	27434
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/14/2016 9:40:31 PM	27434
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/14/2016 9:40:31 PM	27434
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Fluoranthene	ND	2.6	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Fluorene	ND	2.7	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Hexachloroethane	ND	2.4	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Isophorone	ND	2.6	10		µg/L	1	9/14/2016 9:40:31 PM	27434
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/14/2016 9:40:31 PM	27434
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/14/2016 9:40:31 PM	27434
2-Methylphenol	ND	2.5	10		µg/L	1	9/14/2016 9:40:31 PM	27434
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/14/2016 9:40:31 PM	27434
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/14/2016 9:40:31 PM	27434
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/14/2016 9:40:31 PM	27434
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Naphthalene	ND	2.6	10		µg/L	1	9/14/2016 9:40:31 PM	27434
2-Nitroaniline	ND	2.8	10		µg/L	1	9/14/2016 9:40:31 PM	27434
3-Nitroaniline	ND	2.9	10		µg/L	1	9/14/2016 9:40:31 PM	27434
4-Nitroaniline	ND	2.6	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Nitrobenzene	ND	2.8	10		µg/L	1	9/14/2016 9:40:31 PM	27434
2-Nitrophenol	ND	2.4	10		µg/L	1	9/14/2016 9:40:31 PM	27434
4-Nitrophenol	ND	2.6	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Pentachlorophenol	ND	2.3	20		µg/L	1	9/14/2016 9:40:31 PM	27434
Phenanthrene	ND	2.6	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Phenol	ND	2.0	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Pyrene	ND	3.1	10		µg/L	1	9/14/2016 9:40:31 PM	27434

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Hall Environmental Analysis Laboratory, Inc.

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Client Sample ID: MKTF-30
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 4:15:00 PM
Lab ID: 1609418-006 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyridine	ND	2.2	10		µg/L	1	9/14/2016 9:40:31 PM	27434
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/14/2016 9:40:31 PM	27434
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/14/2016 9:40:31 PM	27434
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/14/2016 9:40:31 PM	27434
Surr: 2-Fluorophenol	14.6	0	15-123	S	%Rec	1	9/14/2016 9:40:31 PM	27434
Surr: Phenol-d5	13.0	0	15-124	S	%Rec	1	9/14/2016 9:40:31 PM	27434
Surr: 2,4,6-Tribromophenol	29.4	0	18.4-134		%Rec	1	9/14/2016 9:40:31 PM	27434
Surr: Nitrobenzene-d5	37.4	0	28.8-134		%Rec	1	9/14/2016 9:40:31 PM	27434
Surr: 2-Fluorobiphenyl	34.7	0	35.9-125	S	%Rec	1	9/14/2016 9:40:31 PM	27434
Surr: 4-Terphenyl-d14	22.4	0	15-146		%Rec	1	9/14/2016 9:40:31 PM	27434
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	0.60	0.096	1.0	J	µg/L	1	9/12/2016 8:19:40 PM	R37129
Toluene	ND	0.12	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
Ethylbenzene	0.19	0.11	1.0	J	µg/L	1	9/12/2016 8:19:40 PM	R37129
Methyl tert-butyl ether (MTBE)	0.84	0.21	1.0	J	µg/L	1	9/12/2016 8:19:40 PM	R37129
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
1,2-Dichloroethane (EDC)	5.7	0.12	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
Naphthalene	ND	0.093	2.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
Acetone	ND	4.9	10		µg/L	1	9/12/2016 8:19:40 PM	R37129
Bromobenzene	ND	0.098	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
Bromoform	ND	0.10	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
Bromomethane	ND	0.78	3.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
2-Butanone	ND	0.74	10		µg/L	1	9/12/2016 8:19:40 PM	R37129
Carbon disulfide	ND	0.60	10		µg/L	1	9/12/2016 8:19:40 PM	R37129
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
Chloroethane	ND	0.19	2.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
Chloroform	ND	0.089	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
Chloromethane	ND	0.21	3.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
cis-1,2-DCE	12	0.12	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/12/2016 8:19:40 PM	R37129

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Lab ID: 1609418-006 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
Dibromomethane	ND	0.12	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
1,1-Dichloroethane	110	1.1	10		µg/L	10	9/12/2016 7:50:52 PM	R37129
1,1-Dichloroethene	12	0.11	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
2-Hexanone	ND	0.84	10		µg/L	1	9/12/2016 8:19:40 PM	R37129
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/12/2016 8:19:40 PM	R37129
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
Styrene	ND	0.11	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
Tetrachloroethene (PCE)	0.66	0.15	1.0	J	µg/L	1	9/12/2016 8:19:40 PM	R37129
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
1,1,1-Trichloroethane	2.7	0.091	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
1,1,2-Trichloroethane	0.96	0.13	1.0	J	µg/L	1	9/12/2016 8:19:40 PM	R37129
Trichloroethene (TCE)	7.9	0.18	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
Vinyl chloride	1.8	0.20	1.0		µg/L	1	9/12/2016 8:19:40 PM	R37129
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/12/2016 8:19:40 PM	R37129
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	9/12/2016 8:19:40 PM	R37129
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	1	9/12/2016 8:19:40 PM	R37129

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-30
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016 4:15:00 PM
Lab ID: 1609418-006 **Matrix:** AQUEOUS **Received Date:** 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: Dibromofluoromethane	98.7	0	70-130		%Rec	1	9/12/2016 8:19:40 PM	R37129
Surr: Toluene-d8	96.7	0	70-130		%Rec	1	9/12/2016 8:19:40 PM	R37129
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.23	0.015	0.050		mg/L	1	9/12/2016 8:19:40 PM	G37129
Surr: BFB	98.2	0	70-130		%Rec	1	9/12/2016 8:19:40 PM	G37129

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP01
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016
Lab ID: 1609418-007
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/12/2016 7:40:23 PM	27430
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 7:40:23 PM	27430
Surr: DNOP	111	0	77.1-144		%Rec	1	9/12/2016 7:40:23 PM	27430
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.85	0.050	0.10		mg/L	1	9/12/2016 6:37:38 PM	R37143
Chloride	81	1.0	10		mg/L	20	9/12/2016 6:50:03 PM	R37143
Bromide	0.34	0.044	0.10		mg/L	1	9/12/2016 6:37:38 PM	R37143
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/12/2016 6:37:38 PM	R37143
Sulfate	590	2.8	10		mg/L	20	9/12/2016 6:50:03 PM	R37143
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/21/2016 1:21:09 PM	R37377
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.037	0.0013	0.0020		mg/L	1	9/16/2016 2:11:29 PM	B37246
Cadmium	ND	0.00075	0.0020		mg/L	1	9/16/2016 2:11:29 PM	B37246
Calcium	67	0.50	1.0		mg/L	1	9/16/2016 2:11:29 PM	B37246
Chromium	ND	0.0018	0.0060		mg/L	1	9/16/2016 2:11:29 PM	B37246
Copper	ND	0.0040	0.0060		mg/L	1	9/16/2016 2:11:29 PM	B37246
Iron	0.072	0.020	0.020		mg/L	1	9/16/2016 2:11:29 PM	B37246
Magnesium	8.8	0.50	1.0		mg/L	1	9/16/2016 2:11:29 PM	B37246
Manganese	0.61	0.00032	0.0020	*	mg/L	1	9/16/2016 2:11:29 PM	B37246
Potassium	ND	0.50	1.0		mg/L	1	9/16/2016 2:11:29 PM	B37246
Silver	ND	0.0028	0.0050		mg/L	1	9/16/2016 2:11:29 PM	B37246
Sodium	500	2.5	5.0		mg/L	5	9/16/2016 2:13:36 PM	B37246
Zinc	ND	0.0028	0.010		mg/L	1	9/16/2016 2:11:29 PM	B37246
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.14	0.00079	0.0020		mg/L	1	9/19/2016 3:10:39 PM	27529
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 1:57:33 PM	27675
Chromium	0.0033	0.0027	0.0060	J	mg/L	1	9/19/2016 3:10:39 PM	27529
Copper	0.0054	0.0030	0.0060	J	mg/L	1	9/19/2016 3:10:39 PM	27529
Iron	2.8	0.10	0.10	*	mg/L	5	9/29/2016 12:47:39 PM	27675
Manganese	0.62	0.00027	0.0020	*	mg/L	1	9/19/2016 3:10:39 PM	27529
Silver	ND	0.0015	0.0050		mg/L	1	9/19/2016 3:10:39 PM	27529
Zinc	0.0073	0.0027	0.010	J	mg/L	1	9/19/2016 3:10:39 PM	27529
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0018	0.00014	0.0010		mg/L	1	9/20/2016 2:33:18 PM	B37327
Lead	0.0019	0.00017	0.00050		mg/L	1	9/20/2016 2:33:18 PM	B37327
Selenium	0.0026	0.00021	0.0010		mg/L	1	9/20/2016 2:33:18 PM	B37327
Uranium	0.013	0.000051	0.00050		mg/L	1	9/20/2016 2:33:18 PM	B37327

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Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP01
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016
Lab ID: 1609418-007
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0022	0.00021	0.0010		mg/L	1	9/19/2016 4:50:16 PM	27529
Lead	0.0032	0.000081	0.00050		mg/L	1	9/19/2016 4:50:16 PM	27529
Selenium	0.0031	0.00094	0.0050	J	mg/L	5	9/19/2016 5:22:37 PM	27529
Uranium	0.012	0.00017	0.00050		mg/L	1	9/19/2016 4:50:16 PM	27529
EPA METHOD 245.1: MERCURY							Analyst: **MED**	
Mercury	0.000064	0.000053	0.00020	J	mg/L	1	9/15/2016 1:19:27 PM	27494
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Acenaphthylene	ND	2.4	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Aniline	ND	2.4	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Anthracene	ND	2.5	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Azobenzene	ND	2.7	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Benzoic acid	8.7	2.6	20	J	µg/L	1	9/14/2016 10:08:51 PM	27434
Benzyl alcohol	ND	3.0	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Bis(2-ethylhexyl)phthalate	3.6	2.6	10	J	µg/L	1	9/14/2016 10:08:51 PM	27434
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Carbazole	ND	2.3	10		µg/L	1	9/14/2016 10:08:51 PM	27434
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/14/2016 10:08:51 PM	27434
4-Chloroaniline	ND	2.7	10		µg/L	1	9/14/2016 10:08:51 PM	27434
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/14/2016 10:08:51 PM	27434
2-Chlorophenol	ND	2.2	10		µg/L	1	9/14/2016 10:08:51 PM	27434
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Chrysene	ND	2.8	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Di-n-octyl phthalate	3.7	2.0	10	J	µg/L	1	9/14/2016 10:08:51 PM	27434
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Dibenzofuran	ND	2.5	10		µg/L	1	9/14/2016 10:08:51 PM	27434
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/14/2016 10:08:51 PM	27434
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/14/2016 10:08:51 PM	27434

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP01
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016
Lab ID: 1609418-007
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/14/2016 10:08:51 PM	27434
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Diethyl phthalate	ND	2.7	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Dimethyl phthalate	5.5	2.4	10	J	µg/L	1	9/14/2016 10:08:51 PM	27434
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/14/2016 10:08:51 PM	27434
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/14/2016 10:08:51 PM	27434
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/14/2016 10:08:51 PM	27434
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/14/2016 10:08:51 PM	27434
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/14/2016 10:08:51 PM	27434
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Fluoranthene	ND	2.6	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Fluorene	ND	2.7	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Hexachloroethane	ND	2.4	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Isophorone	ND	2.6	10		µg/L	1	9/14/2016 10:08:51 PM	27434
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/14/2016 10:08:51 PM	27434
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/14/2016 10:08:51 PM	27434
2-Methylphenol	ND	2.5	10		µg/L	1	9/14/2016 10:08:51 PM	27434
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/14/2016 10:08:51 PM	27434
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/14/2016 10:08:51 PM	27434
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/14/2016 10:08:51 PM	27434
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Naphthalene	ND	2.6	10		µg/L	1	9/14/2016 10:08:51 PM	27434
2-Nitroaniline	ND	2.8	10		µg/L	1	9/14/2016 10:08:51 PM	27434
3-Nitroaniline	ND	2.9	10		µg/L	1	9/14/2016 10:08:51 PM	27434
4-Nitroaniline	ND	2.6	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Nitrobenzene	ND	2.8	10		µg/L	1	9/14/2016 10:08:51 PM	27434
2-Nitrophenol	ND	2.4	10		µg/L	1	9/14/2016 10:08:51 PM	27434
4-Nitrophenol	ND	2.6	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Pentachlorophenol	ND	2.3	20		µg/L	1	9/14/2016 10:08:51 PM	27434
Phenanthrene	ND	2.6	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Phenol	ND	2.0	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Pyrene	ND	3.1	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Pyridine	ND	2.2	10		µg/L	1	9/14/2016 10:08:51 PM	27434
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/14/2016 10:08:51 PM	27434
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/14/2016 10:08:51 PM	27434

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP01
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016
Lab ID: 1609418-007
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/14/2016 10:08:51 PM	27434
Surr: 2-Fluorophenol	15.8	0	15-123		%Rec	1	9/14/2016 10:08:51 PM	27434
Surr: Phenol-d5	14.6	0	15-124	S	%Rec	1	9/14/2016 10:08:51 PM	27434
Surr: 2,4,6-Tribromophenol	32.3	0	18.4-134		%Rec	1	9/14/2016 10:08:51 PM	27434
Surr: Nitrobenzene-d5	44.2	0	28.8-134		%Rec	1	9/14/2016 10:08:51 PM	27434
Surr: 2-Fluorobiphenyl	36.4	0	35.9-125		%Rec	1	9/14/2016 10:08:51 PM	27434
Surr: 4-Terphenyl-d14	31.5	0	15-146		%Rec	1	9/14/2016 10:08:51 PM	27434
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	0.30	0.096	1.0	J	µg/L	1	9/12/2016 8:48:27 PM	R37129
Toluene	ND	0.12	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Methyl tert-butyl ether (MTBE)	3.8	0.21	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Naphthalene	ND	0.093	2.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Acetone	ND	4.9	10		µg/L	1	9/12/2016 8:48:27 PM	R37129
Bromobenzene	ND	0.098	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Bromoform	ND	0.10	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Bromomethane	ND	0.78	3.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
2-Butanone	ND	0.74	10		µg/L	1	9/12/2016 8:48:27 PM	R37129
Carbon disulfide	ND	0.60	10		µg/L	1	9/12/2016 8:48:27 PM	R37129
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Chloroethane	ND	0.19	2.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Chloroform	ND	0.089	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Chloromethane	ND	0.21	3.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Dibromomethane	ND	0.12	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP01
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016
Lab ID: 1609418-007
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
2-Hexanone	ND	0.84	10		µg/L	1	9/12/2016 8:48:27 PM	R37129
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/12/2016 8:48:27 PM	R37129
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Styrene	ND	0.11	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/12/2016 8:48:27 PM	R37129
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/12/2016 8:48:27 PM	R37129
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	1	9/12/2016 8:48:27 PM	R37129
Surr: 4-Bromofluorobenzene	105	0	70-130		%Rec	1	9/12/2016 8:48:27 PM	R37129
Surr: Dibromofluoromethane	104	0	70-130		%Rec	1	9/12/2016 8:48:27 PM	R37129
Surr: Toluene-d8	98.1	0	70-130		%Rec	1	9/12/2016 8:48:27 PM	R37129
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP01
Project: 2016 3rd QTR (MKTF)
Collection Date: 9/7/2016
Lab ID: 1609418-007
Matrix: AQUEOUS
Received Date: 9/8/2016 5:10:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.034	0.015	0.050	J	mg/L	1	9/12/2016 8:48:27 PM	G37129
Surr: BFB	99.9	0	70-130		%Rec	1	9/12/2016 8:48:27 PM	G37129

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B37246**	RunNo: **37246**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1155991** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B37246**	RunNo: **37246**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1155992** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.2	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Calcium	49	1.0	50.00	0	98.3	85	115			
Chromium	0.49	0.0060	0.5000	0	98.1	85	115			
Copper	0.48	0.0060	0.5000	0	96.0	85	115			
Iron	0.48	0.020	0.5000	0	96.6	85	115			
Magnesium	49	1.0	50.00	0	97.9	85	115			
Manganese	0.48	0.0020	0.5000	0	96.0	85	115			
Potassium	48	1.0	50.00	0	95.7	85	115			
Silver	0.10	0.0050	0.1000	0	99.9	85	115			
Sodium	48	1.0	50.00	0	96.0	85	115			
Zinc	0.50	0.010	0.5000	0	99.0	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37246**	RunNo: **37246**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1155993** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0022	0.0020	0.002000	0	108	50	150			
Cadmium	0.0017	0.0020	0.002000	0	87.0	50	150			J
Calcium	0.56	1.0	0.5000	0	111	50	150			J
Chromium	0.0056	0.0060	0.006000	0	94.0	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37246**	RunNo: **37246**
Prep Date:	Analysis Date: **9/16/2016**	SeqNo: **1155993** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0043	0.0060	0.006000	0	71.8	50	150			J
Iron	0.023	0.020	0.02000	0	116	50	150			
Magnesium	0.53	1.0	0.5000	0	107	50	150			J
Manganese	0.0022	0.0020	0.002000	0	112	50	150			
Potassium	0.59	1.0	0.5000	0	119	50	150			J
Silver	0.0053	0.0050	0.005000	0	106	50	150			
Sodium	0.48	1.0	0.5000	0	95.6	50	150			J
Zinc	0.0067	0.010	0.005000	0	135	50	150			J

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B37295**	RunNo: **37295**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1158025** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B37295**	RunNo: **37295**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1158026** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	50	1.0	50.00	0	101	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37295**	RunNo: **37295**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1158027** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	0.55	1.0	0.5000	0	111	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID	**MB-27529**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**27529**	RunNo:	**37295**					
Prep Date:	**9/15/2016**	Analysis Date:	**9/19/2016**	SeqNo:	**1159046**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Chromium	ND	0.0060								
Manganese	0.00078	0.0020								J
Silver	ND	0.0050								
Zinc	0.0028	0.010								J

Sample ID	**LCS-27529**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID:	**27529**	RunNo:	**37295**					
Prep Date:	**9/15/2016**	Analysis Date:	**9/19/2016**	SeqNo:	**1159047**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.50	0.0060	0.5000	0	99.5	85	115			
Manganese	0.50	0.0020	0.5000	0	99.3	85	115			
Silver	0.10	0.0050	0.1000	0	105	85	115			
Zinc	0.50	0.010	0.5000	0	101	85	115			

Sample ID	**LLLCS-27529**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID:	**27529**	RunNo:	**37295**					
Prep Date:	**9/15/2016**	Analysis Date:	**9/19/2016**	SeqNo:	**1159048**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0021	0.0020	0.002000	0	106	50	150			
Chromium	0.0067	0.0060	0.006000	0	111	50	150			
Manganese	0.0020	0.0020	0.002000	0	102	50	150			
Silver	0.0051	0.0050	0.005000	0	101	50	150			
Zinc	0.0056	0.010	0.005000	0	112	50	150			J

Sample ID	**MB-27529**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**27529**	RunNo:	**37295**					
Prep Date:	**9/15/2016**	Analysis Date:	**9/19/2016**	SeqNo:	**1159049**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0056	0.0060								J

Sample ID	**LCS-27529**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID:	**27529**	RunNo:	**37295**					
Prep Date:	**9/15/2016**	Analysis Date:	**9/19/2016**	SeqNo:	**1159050**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID	**LCS-27529**	SampType: **LCS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID: **27529**			RunNo: **37295**					
Prep Date:	**9/15/2016**	Analysis Date: **9/19/2016**			SeqNo: **1159050**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.50	0.0060	0.5000	0	99.9	85	115			

Sample ID	**LLLCS-27529**	SampType: **LCSLL**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID: **27529**			RunNo: **37295**					
Prep Date:	**9/15/2016**	Analysis Date: **9/19/2016**			SeqNo: **1159051**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0051	0.0060	0.006000	0	84.5	50	150			J

Sample ID	**MB-27529**	SampType: **MBLK**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID: **27529**			RunNo: **37369**					
Prep Date:	**9/15/2016**	Analysis Date: **9/21/2016**			SeqNo: **1161343**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.0020								

Sample ID	**LCS-27529**	SampType: **LCS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID: **27529**			RunNo: **37369**					
Prep Date:	**9/15/2016**	Analysis Date: **9/21/2016**			SeqNo: **1161344**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	99.8	85	115			

Sample ID	**LLLCS-27529**	SampType: **LCSLL**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID: **27529**			RunNo: **37369**					
Prep Date:	**9/15/2016**	Analysis Date: **9/21/2016**			SeqNo: **1161345**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.0022	0.0020	0.002000	0	110	50	150			

Sample ID	**MB-27675**	SampType: **MBLK**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID: **27675**			RunNo: **37552**					
Prep Date:	**9/23/2016**	Analysis Date: **9/29/2016**			SeqNo: **1168528**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.0020								
Iron	ND	0.020								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID	**LCS-27675**	SampType: **LCS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID: **27675**			RunNo: **37552**					
Prep Date:	**9/23/2016**	Analysis Date: **9/29/2016**			SeqNo: **1168529**		Units: **mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium		0.51	0.0020	0.5000	0	102	85	115			
Iron		0.48	0.020	0.5000	0	95.6	85	115			

Sample ID	**LLLCS-27675**	SampType: **LCSLL**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID: **27675**			RunNo: **37552**					
Prep Date:	**9/23/2016**	Analysis Date: **9/29/2016**			SeqNo: **1168530**		Units: **mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium		0.0024	0.0020	0.002000	0	120	50	150			

Sample ID	**LLLCS-27675**	SampType: **LCSLL**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID: **27675**			RunNo: **37552**					
Prep Date:	**9/23/2016**	Analysis Date: **9/29/2016**			SeqNo: **1168534**		Units: **mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron		0.019	0.020	0.02000	0	92.7	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B37327**	RunNo: **37327**
Prep Date:	Analysis Date: **9/20/2016**	SeqNo: **1160758** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	94.5	85	115			
Lead	0.012	0.00050	0.01250	0	96.8	85	115			
Selenium	0.024	0.0010	0.02500	0	95.3	85	115			
Uranium	0.012	0.00050	0.01250	0	98.7	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37327**	RunNo: **37327**
Prep Date:	Analysis Date: **9/20/2016**	SeqNo: **1160760** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	100	50	150			
Lead	0.00051	0.00050	0.0005000	0	101	50	150			
Selenium	0.00098	0.0010	0.001000	0	98.0	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	98.9	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B37327**	RunNo: **37327**
Prep Date:	Analysis Date: **9/20/2016**	SeqNo: **1160762** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A37386**	RunNo: **37386**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1162017** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.3	85	115			
Selenium	0.024	0.0010	0.02500	0	97.7	85	115			
Uranium	0.012	0.00050	0.01250	0	98.7	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A37386**	RunNo: **37386**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1162020** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00098	0.0010	0.001000	0	98.4	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID	**LLLCS**	SampType:	**LCSLL**	TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**A37386**	RunNo:	**37386**					
Prep Date:		Analysis Date:	**9/21/2016**	SeqNo:	**1162020**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.0010	0.0010	0.001000	0	102	50	150			
Uranium	0.00049	0.00050	0.0005000	0	97.6	50	150			J

Sample ID	**MB**	SampType:	**MBLK**	TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**A37386**	RunNo:	**37386**					
Prep Date:		Analysis Date:	**9/21/2016**	SeqNo:	**1162022**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID	**MB-27529**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID:	**PBW**	Batch ID: **27529**	RunNo: **37309**
Prep Date:	**9/15/2016**	Analysis Date: **9/19/2016**	SeqNo: **1158682** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	0.00010	0.00050								J
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-27529**	SampType: **LCS**	TestCode: **200.8 ICPMS Metals:Total**
Client ID:	**LCSW**	Batch ID: **27529**	RunNo: **37309**
Prep Date:	**9/15/2016**	Analysis Date: **9/19/2016**	SeqNo: **1158684** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.2	85	115			
Lead	0.012	0.00050	0.01250	0	99.4	85	115			
Selenium	0.024	0.0010	0.02500	0	96.4	85	115			
Uranium	0.012	0.00050	0.01250	0	96.1	85	115			

Sample ID	**MSLLLCS-27529**	SampType: **LCSLL**	TestCode: **200.8 ICPMS Metals:Total**
Client ID:	**BatchQC**	Batch ID: **27529**	RunNo: **37309**
Prep Date:	**9/15/2016**	Analysis Date: **9/19/2016**	SeqNo: **1158686** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	108	50	150			
Lead	0.00051	0.00050	0.0005000	0	103	50	150			
Selenium	0.00089	0.0010	0.001000	0	89.1	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	97.3	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID	**MB-27494**	SampType: **MBLK**			TestCode: **EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID: **27494**			RunNo: **37231**					
Prep Date:	**9/14/2016**	Analysis Date: **9/15/2016**			SeqNo: **1155489**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-27494**	SampType: **LCS**			TestCode: **EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID: **27494**			RunNo: **37231**					
Prep Date:	**9/14/2016**	Analysis Date: **9/15/2016**			SeqNo: **1155490**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.4	80	120			

Sample ID	**1609418-001FMS**	SampType: **MS**			TestCode: **EPA Method 245.1: Mercury**					
Client ID:	**FB090716**	Batch ID: **27494**			RunNo: **37231**					
Prep Date:	**9/14/2016**	Analysis Date: **9/15/2016**			SeqNo: **1155492**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	100	75	125			

Sample ID	**1609418-001FMSD**	SampType: **MSD**			TestCode: **EPA Method 245.1: Mercury**					
Client ID:	**FB090716**	Batch ID: **27494**			RunNo: **37231**					
Prep Date:	**9/14/2016**	Analysis Date: **9/15/2016**			SeqNo: **1155493**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	100	75	125	0.0598	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R37143**	RunNo: **37143**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151827** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R37143**	RunNo: **37143**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151828** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.8	0.50	5.000	0	96.3	90	110			
Bromide	2.4	0.10	2.500	0	97.2	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	99.0	90	110			
Sulfate	9.8	0.50	10.00	0	97.8	90	110			

Sample ID **1609418-001DMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **FB090716**	Batch ID: **R37143**	RunNo: **37143**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151852** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	74.5	121			
Chloride	4.7	0.50	5.000	0	94.8	81.9	117			
Bromide	2.4	0.10	2.500	0	95.9	74.6	115			
Sulfate	9.6	0.50	10.00	0	95.8	83	118			

Sample ID **1609418-001DMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **FB090716**	Batch ID: **R37143**	RunNo: **37143**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151853** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	105	74.5	121	0.403	20	
Chloride	4.8	0.50	5.000	0	95.1	81.9	117	0.280	20	
Bromide	2.4	0.10	2.500	0	95.9	74.6	115	0.0459	20	
Sulfate	9.6	0.50	10.00	0	96.0	83	118	0.262	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **B37361**	RunNo: **37361**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1160852** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **B37361**	RunNo: **37361**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1160853** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.7	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R37377**	RunNo: **37377**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1161713** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCSb**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R37377**	RunNo: **37377**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1161716** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID	**MB-27428**	SampType:	**MBLK**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**PBW**	Batch ID:	**27428**	RunNo:	**37191**					
Prep Date:	**9/12/2016**	Analysis Date:	**9/13/2016**	SeqNo:	**1154056**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID	**LCS-27428**	SampType:	**LCS**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**LCSW**	Batch ID:	**27428**	RunNo:	**37191**					
Prep Date:	**9/12/2016**	Analysis Date:	**9/13/2016**	SeqNo:	**1154057**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.11	0.010	0.1000	0	106	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID **LCS-27430**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **27430**	RunNo: **37116**
Prep Date: **9/12/2016**	Analysis Date: **9/12/2016**	SeqNo: **1151166** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.0	1.0	5.000	0	121	63.2	155			
Surr: DNOP	0.55		0.5000		111	77.1	144			

Sample ID **MB-27430**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **27430**	RunNo: **37116**
Prep Date: **9/12/2016**	Analysis Date: **9/12/2016**	SeqNo: **1151167** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		108	77.1	144			

Sample ID **1609418-001BMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **FB090716**	Batch ID: **27430**	RunNo: **37116**
Prep Date: **9/12/2016**	Analysis Date: **9/12/2016**	SeqNo: **1151375** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.3	1.0	5.000	0	126	79.6	148			
Surr: DNOP	0.56		0.5000		113	77.1	144			

Sample ID **1609418-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **FB090716**	Batch ID: **27430**	RunNo: **37116**
Prep Date: **9/12/2016**	Analysis Date: **9/12/2016**	SeqNo: **1151376** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.2	1.0	5.000	0	124	79.6	148	1.42	20	
Surr: DNOP	0.57		0.5000		113	77.1	144	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R37129**	RunNo: **37129**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151411** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.7	70	130			
Toluene	18	1.0	20.00	0	91.9	70	130			
Chlorobenzene	18	1.0	20.00	0	89.9	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	96.2	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	87.9	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.4	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.2	70	130			
Surr: Toluene-d8	9.7		10.00		96.9	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37129**	RunNo: **37129**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151412** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	0.12	0.10								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	0.35	0.10								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	0.28	0.10								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37129**	RunNo: **37129**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151412** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	0.37	0.10								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37129**	RunNo: **37129**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151412** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.1	70	130			
Surr: Dibromofluoromethane	10		10.00		99.9	70	130			
Surr: Toluene-d8	9.8		10.00		97.7	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152880** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.1	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		99.9	70	130			
Surr: Toluene-d8	9.6		10.00		95.5	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152881** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.7	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.8		10.00		97.6	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID **mb-27434**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **27434**	RunNo: **37197**	
Prep Date: **9/12/2016**	Analysis Date: **9/14/2016**	SeqNo: **1154153**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	7.5	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	3.5	10								J
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	3.9	10								J
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	8.5	10								J
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID **mb-27434**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **27434**	RunNo: **37197**
Prep Date: **9/12/2016**	Analysis Date: **9/14/2016**	SeqNo: **1154153** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	47		200.0		23.4	15	123			
Surr: Phenol-d5	43		200.0		21.4	4.13	124			
Surr: 2,4,6-Tribromophenol	80		200.0		40.0	18.4	134			
Surr: Nitrobenzene-d5	52		100.0		51.7	28.8	134			
Surr: 2-Fluorobiphenyl	44		100.0		43.5	35.9	125			
Surr: 4-Terphenyl-d14	32		100.0		32.4	15	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID **lcsd-27434**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **27434**	RunNo: **37197**
Prep Date: **9/12/2016**	Analysis Date: **9/14/2016**	SeqNo: **1154155** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	66	10	100.0	0	66.5	35	113	28.0	0	
4-Chloro-3-methylphenol	110	10	200.0	0	54.2	40.7	114	27.1	0	
2-Chlorophenol	91	10	200.0	0	45.3	37.6	113	43.6	0	
1,4-Dichlorobenzene	42	10	100.0	0	41.6	37.7	106	36.7	0	
2,4-Dinitrotoluene	67	10	100.0	0	66.8	37	91	33.1	0	
N-Nitrosodi-n-propylamine	67	10	100.0	0	67.4	45.4	105	27.9	0	
4-Nitrophenol	90	10	200.0	0	45.2	33.4	104	6.84	0	
Pentachlorophenol	100	20	200.0	0	50.7	29.5	94.9	10.7	0	
Phenol	86	10	200.0	0	43.1	30.6	119	32.2	0	
Pyrene	70	10	100.0	0	70.3	26.2	120	28.0	0	
1,2,4-Trichlorobenzene	45	10	100.0	0	44.8	39.9	125	44.4	0	
Surr: 2-Fluorophenol	95		200.0		47.6	15	123	0	0	
Surr: Phenol-d5	110		200.0		53.5	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	130		200.0		66.9	18.4	134	0	0	
Surr: Nitrobenzene-d5	61		100.0		61.1	28.8	134	0	0	
Surr: 2-Fluorobiphenyl	69		100.0		69.0	35.9	125	0	0	
Surr: 4-Terphenyl-d14	61		100.0		60.5	15	146	0	0	

Sample ID **mb-27514**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **27514**	RunNo: **37269**
Prep Date: **9/15/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157088** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	130		200.0		64.9	15	123			
Surr: Phenol-d5	100		200.0		52.4	4.13	124			
Surr: 2,4,6-Tribromophenol	220		200.0		108	18.4	134			
Surr: Nitrobenzene-d5	85		100.0		84.6	28.8	134			
Surr: 2-Fluorobiphenyl	88		100.0		88.2	35.9	125			
Surr: 4-Terphenyl-d14	58		100.0		58.3	15	146			

Sample ID **lcs-27434**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **27434**	RunNo: **37269**
Prep Date: **9/12/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157089** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	88	10	100.0	0	88.1	35	113			
4-Chloro-3-methylphenol	140	10	200.0	0	71.2	40.7	114			
2-Chlorophenol	140	10	200.0	0	70.6	37.6	113			
1,4-Dichlorobenzene	60	10	100.0	0	60.2	37.7	106			
2,4-Dinitrotoluene	93	10	100.0	0	93.2	37	91			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID **lcs-27434**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **27434**	RunNo: **37269**
Prep Date: **9/12/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157089** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Nitrosodi-n-propylamine	89	10	100.0	0	89.3	45.4	105			
4-Nitrophenol	84	10	200.0	0	42.2	33.4	104			
Pentachlorophenol	110	20	200.0	0	56.5	29.5	94.9			
Phenol	120	10	200.0	0	59.7	30.6	119			
Pyrene	93	10	100.0	0	93.3	26.2	120			
1,2,4-Trichlorobenzene	70	10	100.0	0	70.4	39.9	125			
Surr: 2-Fluorophenol	78		200.0		39.0	15	123			
Surr: Phenol-d5	82		200.0		41.1	4.13	124			
Surr: 2,4,6-Tribromophenol	120		200.0		58.5	18.4	134			
Surr: Nitrobenzene-d5	66		100.0		66.3	28.8	134			
Surr: 2-Fluorobiphenyl	65		100.0		64.7	35.9	125			
Surr: 4-Terphenyl-d14	52		100.0		51.6	15	146			

Sample ID **lcs-27514**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **27514**	RunNo: **37269**
Prep Date: **9/15/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157091** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	130		200.0		66.0	15	123			
Surr: Phenol-d5	140		200.0		69.3	4.13	124			
Surr: 2,4,6-Tribromophenol	180		200.0		89.4	18.4	134			
Surr: Nitrobenzene-d5	79		100.0		79.4	28.8	134			
Surr: 2-Fluorobiphenyl	77		100.0		76.8	35.9	125			
Surr: 4-Terphenyl-d14	56		100.0		55.7	15	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609418**

17-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3rd QTR (MKTF)

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G37129**	RunNo: **37129**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151489** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.52	0.050	0.5000	0	105	75.4	118			
Surr: BFB	10		10.00		103	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G37129**	RunNo: **37129**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151490** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.10								
Surr: BFB	9.5		10.00		94.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1609418** RcptNo: 1

Received by/date: 09/08/16

Logged By: **Ashley Gallegos** 9/8/2016 5:10:00 PM

Completed By: **Ashley Gallegos** 9/8/2016 5:58:16 PM

Reviewed By: 09/09/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 21 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? NO
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: AJ

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609418
7/16	0915	WATER	FB090716	40 ML VOA-6	HCL	-001
				40 ML VOA-3	HCL	
				1 L AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				500 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
↓	↓	↓	↓	500 ML PLASTIC-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8011 (1,2-DIBROMOMETHANE)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)	Air Bubbles (Y or N)
		✓							✓						
											✓				
										✓					
		✓													
													✓		
												✓	✓		
												✓			
													✓		

Date	Time	Relinquished by:	Received by:	Date	Time
9/8/16	0645			9/8/16	1500
9/8/16	1710			09/08/16	1710

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.

GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING RD

GALLUP, NM 87301

Phone #: 505-722-0231

email or Fax#: CHERYL.JOHNSON@WNR.COM

QA/QC Package: Standard [X] Level 4 (Full Validation)

Accreditation: [X] NELAP [ ] Other

EDD (Type) EXCEL

Turn-Around Time: [X] Standard [ ] Rush

Project Name: 2016 3RD QTR (MKTF)

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: [X] Yes [ ] No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
9/1/16	0945	WATER	MKTF-24	40 ML VOA-6	HCL	1609418-002
				40 ML VOA-3	HCL	
				1 L AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				500 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8011 (1,2-DIBROMOMETHANE)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)	Air Bubbles (Y or N)
		✓							✓		✓				
										✓					
		✓													
													✓		
												✓	✓		
												✓			
													✓		

Date:	Time:	Relinquished by:	Received by:	Date	Time
9/8/16	06:45			9/8/16	1500
9/8/16	1710			09/08/16	1710

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

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Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609418	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS (TOTAL & DISSOLVED)		Air Bubbles (Y or N)
7/16	1300	WATER	MKTF-27	40 ML VOA-6	HCL	-003			✓							✓					
				1 L AMBER-2	NEAT												✓				
				250 ML AMBER-1	NEAT				✓												
				500 ML PLASTIC-1	HNO_3														✓		
				125 ML PLASTIC-1	HNO_3													✓	✓		
				125 ML PLASTIC-1	H_2SO_4													✓			
				500 ML PLASTIC-1	NEAT														✓		

Date	Time	Relinquished by:	Received by:	Date	Time
9/7/16	645			9/8/16	1500
9/7/16	1710			09/08/16	1710

Remarks: EXTRA 1 L AMBER INCLUDED WITH THIS SAMPLE

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Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard ☒ Level 4 (Full Validation)
Accreditation: ☒ NELAP ☐ Other
EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

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Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
9/16	1435	WATER	MKTF-29	40 ML VOA-6	HCL	1609418
				1 L AMBER-1	NEAT	-004
				250 ML AMBER-1	NEAT	
				500 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)		Air Bubbles (Y or N)
		✓							✓						
		✓								✓					
		✓													
												✓			
											✓	✓			
											✓				
												✓			

Date	Time	Relinquished by:	Received by:	Date	Time
9/16	0645			9/9/16	1500
9/16	1710			09/08/16	1710

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: NELAP [ ] Other
EDD (Type) EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

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Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
9/7/16	1545	WATER	MKTF-02	40 ML VOA-6	HCL	1609418-005
				40 ML VOA-3	HCL	
				1 L AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				500 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
↓	↓	↓	↓	500 ML PLASTIC-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8011 (1,2-DIBROMOMETHANE)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)	Air Bubbles (Y or N)
		✓							✓						
											✓				
										✓					
		✓													
													✓		
												✓	✓		
												✓			
													✓		

Date	Time	Relinquished by:	Received by:	Date	Time
9/8/16	0645			9/8/16	1500
9/8/16	1710			09/08/16	1710

Remarks:

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Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

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Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
9/16	1615	WATER	MKTF-30	40 ML VOA-6	HCL	1609418-004
				40 ML VOA-3	HCL	
				1 L AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				500 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8011 (1,2-DIBROMOMETHANE)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)	Air Bubbles (Y or N)
		✓							✓						
											✓				
										✓					
		✓													
													✓		
												✓	✓		
												✓			
													✓		

Date	Time	Relinquished by:	Received by:	Date	Time
9/16	0645			9/8/16	1500
9/16	1710			09/08/16	1710

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 3RD QTR (MKTE)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

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4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609418
9/1/16	—	WATER	DUP01	40 mL VOA-6	HCL	-007
				1 L AMBER-1	NEAT	
				250 mL AMBER-1	NEAT	
				500 mL PLASTIC-1	HNO_3	
				125 mL PLASTIC-1	HNO_3	
				125 mL PLASTIC-1	H_2SO_4	
				500 mL PLASTIC-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)		Air Bubbles (Y or N)
		✓							✓						
										✓					
		✓													
												✓			
											✓	✓			
											✓				
												✓			

Date	Time	Relinquished by:	Received by:	Date	Time
9/8/16	0845			9/9/16	1500
9/8/16	1710			09/08/16	1710

Remarks:

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HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 25, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 3RD QTR (MKTF) OrderNo.: 1609507

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 9 sample(s) on 9/10/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 8:35:00 AM
Lab ID: 1609507-001 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/12/2016 10:27:27 PM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 10:27:27 PM	27435
Surr: DNOP	145	0	77.1-144	S	%Rec	1	9/12/2016 10:27:27 PM	27435
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.36	0.25	0.50	J	mg/L	5	9/12/2016 9:40:52 PM	R37147
Chloride	310	1.0	10		mg/L	20	9/12/2016 9:53:17 PM	R37147
Bromide	0.51	0.22	0.50		mg/L	5	9/12/2016 9:40:52 PM	R37147
Phosphorus, Orthophosphate (As P)	1.7	0.38	2.5	JH	mg/L	5	9/12/2016 9:40:52 PM	R37147
Sulfate	97	0.71	2.5		mg/L	5	9/12/2016 9:40:52 PM	R37147
Nitrate+Nitrite as N	1.8	0.46	1.0		mg/L	5	9/17/2016 10:52:19 PM	A37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.058	0.0013	0.0020		mg/L	1	9/29/2016 2:43:37 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 2:43:37 PM	E37552
Calcium	11	0.50	1.0		mg/L	1	9/29/2016 2:43:37 PM	E37552
Chromium	0.0077	0.0018	0.0060		mg/L	1	9/29/2016 2:43:37 PM	E37552
Copper	0.0041	0.0040	0.0060	J	mg/L	1	9/29/2016 2:43:37 PM	E37552
Iron	0.97	0.020	0.020	*	mg/L	1	9/29/2016 2:43:37 PM	E37552
Magnesium	0.68	0.50	1.0	J	mg/L	1	9/29/2016 2:43:37 PM	E37552
Manganese	0.042	0.00032	0.0020		mg/L	1	9/29/2016 2:43:37 PM	E37552
Potassium	1.5	0.50	1.0		mg/L	1	9/29/2016 2:43:37 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 2:43:37 PM	E37552
Sodium	530	5.0	10		mg/L	10	9/29/2016 2:45:36 PM	E37552
Zinc	0.0078	0.0028	0.010	J	mg/L	1	9/29/2016 2:43:37 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.26	0.00079	0.0020		mg/L	1	10/3/2016 6:34:30 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 6:34:30 PM	27613
Chromium	0.031	0.0027	0.0060		mg/L	1	10/3/2016 6:34:30 PM	27613
Copper	0.019	0.0030	0.0060		mg/L	1	10/3/2016 6:34:30 PM	27613
Iron	33	1.0	1.0	*	mg/L	50	10/4/2016 3:50:05 PM	27613
Manganese	0.53	0.00027	0.0020	*	mg/L	1	10/3/2016 6:34:30 PM	27613
Silver	ND	0.0077	0.025		mg/L	5	10/5/2016 1:18:27 PM	27613
Zinc	0.089	0.0027	0.010		mg/L	1	10/3/2016 6:34:30 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0088	0.00014	0.0010		mg/L	1	9/21/2016 10:25:34 PM	B37386
Lead	0.0050	0.00017	0.00050		mg/L	1	9/21/2016 10:25:34 PM	B37386
Selenium	0.015	0.00021	0.0010		mg/L	1	9/21/2016 10:25:34 PM	B37386
Uranium	0.17	0.00051	0.0050	*	mg/L	10	9/22/2016 9:00:52 PM	B37425

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 8:35:00 AM
Lab ID: 1609507-001
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0086	0.00021	0.0010		mg/L	1	9/21/2016 6:04:19 PM	27613
Lead	0.031	0.00041	0.0025	*	mg/L	5	9/22/2016 3:10:44 PM	27613
Selenium	0.014	0.00094	0.0050		mg/L	5	9/22/2016 3:10:44 PM	27613
Uranium	0.17	0.0035	0.010	*	mg/L	20	9/22/2016 3:13:45 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00010	0.000053	0.00020	J	mg/L	1	9/23/2016 11:00:34 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Benzoic acid	6.5	2.6	20	J	µg/L	1	9/16/2016 7:34:03 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Bis(2-ethylhexyl)phthalate	3.5	2.6	10	J	µg/L	1	9/16/2016 7:34:03 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/16/2016 7:34:03 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Di-n-octyl phthalate	ND	2.0	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Dibenzofuran	ND	2.5	10		µg/L	1	9/16/2016 7:34:03 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 8:35:00 AM
Lab ID: 1609507-001 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/16/2016 7:34:03 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/16/2016 7:34:03 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/16/2016 7:34:03 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/16/2016 7:34:03 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/16/2016 7:34:03 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/16/2016 7:34:03 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/16/2016 7:34:03 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/16/2016 7:34:03 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/16/2016 7:34:03 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/16/2016 7:34:03 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Phenol	ND	2.0	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Pyridine	ND	2.2	10		µg/L	1	9/16/2016 7:34:03 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/16/2016 7:34:03 PM	27489

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 8:35:00 AM
Lab ID: 1609507-001 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Surr: 2-Fluorophenol	22.4	0	15-123		%Rec	1	9/16/2016 7:34:03 PM	27489
Surr: Phenol-d5	25.1	0	15-124		%Rec	1	9/16/2016 7:34:03 PM	27489
Surr: 2,4,6-Tribromophenol	40.9	0	18.4-134		%Rec	1	9/16/2016 7:34:03 PM	27489
Surr: Nitrobenzene-d5	64.1	0	28.8-134		%Rec	1	9/16/2016 7:34:03 PM	27489
Surr: 2-Fluorobiphenyl	54.6	0	35.9-125		%Rec	1	9/16/2016 7:34:03 PM	27489
Surr: 4-Terphenyl-d14	24.6	0	15-146		%Rec	1	9/16/2016 7:34:03 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Acetone	ND	4.9	10		µg/L	1	9/13/2016 11:49:48 AM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 11:49:48 AM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 11:49:48 AM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 8:35:00 AM
Lab ID: 1609507-001 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 11:49:48 AM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 11:49:48 AM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 11:49:48 AM	R37165
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	1	9/13/2016 11:49:48 AM	R37165
Surr: 4-Bromofluorobenzene	104	0	70-130		%Rec	1	9/13/2016 11:49:48 AM	R37165
Surr: Dibromofluoromethane	102	0	70-130		%Rec	1	9/13/2016 11:49:48 AM	R37165
Surr: Toluene-d8	96.8	0	70-130		%Rec	1	9/13/2016 11:49:48 AM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 8:35:00 AM
Lab ID: 1609507-001 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.023	0.015	0.050	J	mg/L	1	9/13/2016 11:49:48 AM	G37165
Surr: BFB	100	0	70-130		%Rec	1	9/13/2016 11:49:48 AM	G37165

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 9:30:00 AM
Lab ID: 1609507-002
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	9/21/2016 7:17:42 PM	27623
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	0.94	0.69	1.0	J	mg/L	1	9/13/2016 7:46:38 PM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 7:46:38 PM	27435
Surr: DNOP	126	0	77.1-144		%Rec	1	9/13/2016 7:46:38 PM	27435
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.073	0.050	0.10	J	mg/L	1	9/12/2016 10:05:41 PM	R37147
Chloride	560	2.5	25		mg/L	50	9/29/2016 4:57:44 PM	R37589
Bromide	0.89	0.044	0.10		mg/L	1	9/12/2016 10:05:41 PM	R37147
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/12/2016 10:05:41 PM	R37147
Sulfate	34	0.14	0.50		mg/L	1	9/12/2016 10:05:41 PM	R37147
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 11:04:43 PM	A37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.31	0.0013	0.0020		mg/L	1	9/29/2016 2:47:22 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 2:47:22 PM	E37552
Calcium	100	5.0	10		mg/L	10	9/29/2016 2:49:24 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 2:47:22 PM	E37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 2:47:22 PM	E37552
Iron	0.11	0.020	0.020		mg/L	1	9/29/2016 2:47:22 PM	E37552
Magnesium	20	0.50	1.0		mg/L	1	9/29/2016 2:47:22 PM	E37552
Manganese	2.7	0.0032	0.020	*	mg/L	10	9/29/2016 2:49:24 PM	E37552
Potassium	1.2	0.50	1.0		mg/L	1	9/29/2016 2:47:22 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 2:47:22 PM	E37552
Sodium	570	5.0	10		mg/L	10	9/29/2016 2:49:24 PM	E37552
Zinc	0.0089	0.0028	0.010	J	mg/L	1	9/29/2016 2:47:22 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.45	0.00079	0.0020		mg/L	1	10/3/2016 6:53:43 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 6:53:43 PM	27613
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 6:53:43 PM	27613
Copper	0.0060	0.0030	0.0060	J	mg/L	1	10/3/2016 6:53:43 PM	27613
Iron	4.3	0.10	0.10	*	mg/L	5	10/5/2016 1:31:33 PM	27613
Manganese	3.4	0.0014	0.010	*	mg/L	5	10/3/2016 6:59:15 PM	27613
Silver	ND	0.0015	0.0050		mg/L	1	10/13/2016 1:15:04 PM	28020
Zinc	0.012	0.0027	0.010		mg/L	1	10/3/2016 6:53:43 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0058	0.00014	0.0010		mg/L	1	9/21/2016 10:28:37 PM	B37386
Lead	0.0066	0.00017	0.00050		mg/L	1	9/21/2016 10:28:37 PM	B37386

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 9:30:00 AM
Lab ID: 1609507-002 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Selenium	0.0074	0.00021	0.0010		mg/L	1	9/21/2016 10:28:37 PM	B37386
Uranium	0.032	0.00026	0.0025	*	mg/L	5	9/23/2016 11:23:41 AM	A37462
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0044	0.00021	0.0010		mg/L	1	9/21/2016 6:13:24 PM	27613
Lead	0.0063	0.000081	0.00050		mg/L	1	9/21/2016 6:13:24 PM	27613
Selenium	0.0059	0.0019	0.010	J	mg/L	10	9/22/2016 3:19:46 PM	27613
Uranium	0.027	0.00087	0.0025		mg/L	5	9/22/2016 3:16:45 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000054	0.000053	0.00020	J	mg/L	1	9/23/2016 11:06:39 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Benzoic acid	9.9	2.6	20	J	µg/L	1	9/16/2016 8:01:34 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Bis(2-ethylhexyl)phthalate	3.8	2.6	10	J	µg/L	1	9/16/2016 8:01:34 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/16/2016 8:01:34 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Di-n-octyl phthalate	3.8	2.0	10	J	µg/L	1	9/16/2016 8:01:34 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 9:30:00 AM
Lab ID: 1609507-002
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenzofuran	ND	2.5	10		µg/L	1	9/16/2016 8:01:34 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Dimethyl phthalate	3.1	2.4	10	J	µg/L	1	9/16/2016 8:01:34 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/16/2016 8:01:34 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/16/2016 8:01:34 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/16/2016 8:01:34 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/16/2016 8:01:34 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
1-Methylnaphthalene	4.1	2.9	10	J	µg/L	1	9/16/2016 8:01:34 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/16/2016 8:01:34 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/16/2016 8:01:34 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/16/2016 8:01:34 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/16/2016 8:01:34 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/16/2016 8:01:34 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Phenol	12	2.0	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/16/2016 8:01:34 PM	27489

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 9:30:00 AM
Lab ID: 1609507-002 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyridine	ND	2.2	10		µg/L	1	9/16/2016 8:01:34 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Surr: 2-Fluorophenol	22.1	0	15-123		%Rec	1	9/16/2016 8:01:34 PM	27489
Surr: Phenol-d5	19.5	0	15-124		%Rec	1	9/16/2016 8:01:34 PM	27489
Surr: 2,4,6-Tribromophenol	43.3	0	18.4-134		%Rec	1	9/16/2016 8:01:34 PM	27489
Surr: Nitrobenzene-d5	59.3	0	28.8-134		%Rec	1	9/16/2016 8:01:34 PM	27489
Surr: 2-Fluorobiphenyl	53.7	0	35.9-125		%Rec	1	9/16/2016 8:01:34 PM	27489
Surr: 4-Terphenyl-d14	26.7	0	15-146		%Rec	1	9/16/2016 8:01:34 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	920	0.96	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Toluene	5.0	1.2	10	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
Ethylbenzene	18	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Methyl tert-butyl ether (MTBE)	150	2.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2,4-Trimethylbenzene	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,3,5-Trimethylbenzene	ND	1.2	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2-Dichloroethane (EDC)	7.9	1.2	10	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Naphthalene	ND	0.93	20		µg/L	10	9/13/2016 2:42:49 PM	R37165
1-Methylnaphthalene	ND	2.0	40		µg/L	10	9/13/2016 2:42:49 PM	R37165
2-Methylnaphthalene	ND	1.6	40		µg/L	10	9/13/2016 2:42:49 PM	R37165
Acetone	ND	49	100		µg/L	10	9/13/2016 2:42:49 PM	R37165
Bromobenzene	ND	0.98	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Bromodichloromethane	ND	1.4	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Bromoform	ND	1.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Bromomethane	ND	7.8	30		µg/L	10	9/13/2016 2:42:49 PM	R37165
2-Butanone	ND	7.4	100		µg/L	10	9/13/2016 2:42:49 PM	R37165
Carbon disulfide	ND	6.0	100		µg/L	10	9/13/2016 2:42:49 PM	R37165
Carbon Tetrachloride	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Chlorobenzene	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Chloroethane	ND	1.9	20		µg/L	10	9/13/2016 2:42:49 PM	R37165
Chloroform	ND	0.89	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Chloromethane	ND	2.1	30		µg/L	10	9/13/2016 2:42:49 PM	R37165
2-Chlorotoluene	ND	4.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
4-Chlorotoluene	ND	1.3	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
cis-1,2-DCE	40	1.2	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	9/13/2016 2:42:49 PM	R37165

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 9:30:00 AM
Lab ID: 1609507-002 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Dibromochloromethane	ND	0.87	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Dibromomethane	ND	1.2	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1-Dichloroethane	180	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1-Dichloroethene	55	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2-Dichloropropane	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,3-Dichloropropane	ND	1.6	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
2,2-Dichloropropane	ND	1.7	20		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1-Dichloropropene	ND	1.3	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Hexachlorobutadiene	ND	2.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
2-Hexanone	ND	8.4	100		µg/L	10	9/13/2016 2:42:49 PM	R37165
Isopropylbenzene	25	1.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
4-Isopropyltoluene	ND	1.4	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	9/13/2016 2:42:49 PM	R37165
Methylene Chloride	ND	1.9	30		µg/L	10	9/13/2016 2:42:49 PM	R37165
n-Butylbenzene	9.0	1.6	30	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
n-Propylbenzene	32	1.3	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
sec-Butylbenzene	5.9	1.2	10	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
Styrene	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
tert-Butylbenzene	ND	1.2	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	9/13/2016 2:42:49 PM	R37165
Tetrachloroethene (PCE)	2.1	1.5	10	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
trans-1,2-DCE	ND	4.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1,1-Trichloroethane	5.9	0.91	10	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Trichloroethene (TCE)	11	1.8	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Trichlorofluoromethane	ND	2.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	9/13/2016 2:42:49 PM	R37165
Vinyl chloride	5.9	2.0	10	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
Xylenes, Total	ND	3.7	15		µg/L	10	9/13/2016 2:42:49 PM	R37165
Surr: 1,2-Dichloroethane-d4	95.8	0	70-130		%Rec	10	9/13/2016 2:42:49 PM	R37165
Surr: 4-Bromofluorobenzene	95.1	0	70-130		%Rec	10	9/13/2016 2:42:49 PM	R37165

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 9:30:00 AM
Lab ID: 1609507-002
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: Dibromofluoromethane	94.6	0	70-130		%Rec	10	9/13/2016 2:42:49 PM	R37165
Surr: Toluene-d8	96.2	0	70-130		%Rec	10	9/13/2016 2:42:49 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	7.1	0.15	0.50		mg/L	10	9/13/2016 2:42:49 PM	G37165
Surr: BFB	99.7	0	70-130		%Rec	10	9/13/2016 2:42:49 PM	G37165

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 10:45:00 AM
Lab ID: 1609507-003 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/12/2016 11:11:24 PM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 11:11:24 PM	27435
Surr: DNOP	149	0	77.1-144	S	%Rec	1	9/12/2016 11:11:24 PM	27435
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	1.0	2.0		mg/L	20	9/12/2016 11:32:33 PM	R37147
Chloride	16000	100	1000		mg/L	2000	9/24/2016 2:10:09 AM	A37469
Bromide	13	0.87	2.0		mg/L	20	9/12/2016 11:32:33 PM	R37147
Phosphorus, Orthophosphate (As P)	6.6	1.5	10	J	mg/L	20	9/12/2016 11:32:33 PM	R37147
Sulfate	1800	7.1	25		mg/L	50	9/24/2016 1:32:53 AM	A37469
Nitrate+Nitrite as N	ND	4.6	10		mg/L	50	9/28/2016 3:45:25 PM	R37561
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.086	0.0013	0.0020		mg/L	1	9/29/2016 2:51:14 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 2:51:14 PM	E37552
Calcium	2900	50	100		mg/L	100	9/29/2016 2:57:17 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 2:51:14 PM	E37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 2:51:14 PM	E37552
Iron	0.073	0.020	0.020		mg/L	1	9/29/2016 2:51:14 PM	E37552
Magnesium	460	2.5	5.0		mg/L	5	9/29/2016 2:53:25 PM	E37552
Manganese	23	0.032	0.20	*	mg/L	100	9/29/2016 2:57:17 PM	E37552
Potassium	9.5	0.50	1.0		mg/L	1	9/29/2016 2:51:14 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 2:51:14 PM	E37552
Sodium	6500	50	100		mg/L	100	9/29/2016 2:57:17 PM	E37552
Zinc	0.013	0.0028	0.010		mg/L	1	9/29/2016 2:51:14 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.17	0.0040	0.010		mg/L	5	10/3/2016 7:07:19 PM	27613
Cadmium	ND	0.0074	0.010		mg/L	5	10/3/2016 7:07:19 PM	27613
Chromium	ND	0.013	0.030		mg/L	5	10/3/2016 7:07:19 PM	27613
Copper	ND	0.015	0.030		mg/L	5	10/3/2016 7:07:19 PM	27613
Iron	3.6	0.10	0.10	*	mg/L	5	10/3/2016 7:07:19 PM	27613
Manganese	21	0.014	0.10	*	mg/L	50	10/5/2016 1:44:36 PM	27613
Silver	ND	0.0077	0.025		mg/L	5	10/3/2016 7:07:19 PM	27613
Zinc	0.032	0.013	0.050	J	mg/L	5	10/3/2016 7:07:19 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.018	0.0069	0.050	J*	mg/L	50	9/22/2016 9:31:46 PM	B37425
Lead	ND	0.0017	0.0050		mg/L	10	9/22/2016 9:26:38 PM	B37425
Selenium	0.067	0.011	0.050	*	mg/L	50	9/22/2016 9:31:46 PM	B37425
Uranium	0.25	0.0010	0.010	*	mg/L	20	9/23/2016 11:26:44 AM	A37462

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 10:45:00 AM
Lab ID: 1609507-003
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.022	0.011	0.050	J*	mg/L	50	9/22/2016 3:34:53 PM	27613
Lead	0.0041	0.00041	0.0025		mg/L	5	9/22/2016 3:28:52 PM	27613
Selenium	0.065	0.019	0.10	J*	mg/L	100	9/22/2016 3:46:56 PM	27613
Uranium	0.21	0.0087	0.025	*	mg/L	50	9/22/2016 3:34:53 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:08:42 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Benzoic acid	17	2.6	20	J	µg/L	1	9/17/2016 11:24:17 AM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Bis(2-ethylhexyl)phthalate	4.1	2.6	10	J	µg/L	1	9/17/2016 11:24:17 AM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 11:24:17 AM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Di-n-octyl phthalate	3.4	2.0	10	J	µg/L	1	9/17/2016 11:24:17 AM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 11:24:17 AM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 10:45:00 AM
Lab ID: 1609507-003
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/17/2016 11:24:17 AM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 11:24:17 AM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 11:24:17 AM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 11:24:17 AM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 11:24:17 AM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 11:24:17 AM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 11:24:17 AM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 11:24:17 AM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 11:24:17 AM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 11:24:17 AM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 11:24:17 AM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 11:24:17 AM	27489

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 10:45:00 AM
Lab ID: 1609507-003 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Surr: 2-Fluorophenol	19.7	0	15-123		%Rec	1	9/17/2016 11:24:17 AM	27489
Surr: Phenol-d5	12.4	0	15-124	S	%Rec	1	9/17/2016 11:24:17 AM	27489
Surr: 2,4,6-Tribromophenol	57.9	0	18.4-134		%Rec	1	9/17/2016 11:24:17 AM	27489
Surr: Nitrobenzene-d5	63.8	0	28.8-134		%Rec	1	9/17/2016 11:24:17 AM	27489
Surr: 2-Fluorobiphenyl	49.6	0	35.9-125		%Rec	1	9/17/2016 11:24:17 AM	27489
Surr: 4-Terphenyl-d14	64.7	0	15-146		%Rec	1	9/17/2016 11:24:17 AM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	0.14	0.096	1.0	J	µg/L	1	9/13/2016 3:11:36 PM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Acetone	ND	4.9	10		µg/L	1	9/13/2016 3:11:36 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 3:11:36 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 3:11:36 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 10:45:00 AM
Lab ID: 1609507-003 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 3:11:36 PM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 3:11:36 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 3:11:36 PM	R37165
Surr: 1,2-Dichloroethane-d4	106	0	70-130		%Rec	1	9/13/2016 3:11:36 PM	R37165
Surr: 4-Bromofluorobenzene	105	0	70-130		%Rec	1	9/13/2016 3:11:36 PM	R37165
Surr: Dibromofluoromethane	105	0	70-130		%Rec	1	9/13/2016 3:11:36 PM	R37165
Surr: Toluene-d8	95.8	0	70-130		%Rec	1	9/13/2016 3:11:36 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 10:45:00 AM
Lab ID: 1609507-003 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.026	0.015	0.050	J	mg/L	1	9/13/2016 3:11:36 PM	G37165
Surr: BFB	97.7	0	70-130		%Rec	1	9/13/2016 3:11:36 PM	G37165

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 12:15:00 PM
Lab ID: 1609507-004
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	62	6.9	10		mg/L	10	9/12/2016 11:33:09 PM	27435
Motor Oil Range Organics (MRO)	ND	50	50		mg/L	10	9/12/2016 11:33:09 PM	27435
Surr: DNOP	0	0	77.1-144	S	%Rec	10	9/12/2016 11:33:09 PM	27435
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.43	0.25	0.50	J	mg/L	5	9/12/2016 11:44:57 PM	R37147
Chloride	880	5.1	50		mg/L	100	9/24/2016 2:22:33 AM	A37469
Bromide	1.7	0.22	0.50		mg/L	5	9/12/2016 11:44:57 PM	R37147
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5	H	mg/L	5	9/12/2016 11:44:57 PM	R37147
Sulfate	110	0.71	2.5		mg/L	5	9/12/2016 11:44:57 PM	R37147
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 11:29:32 PM	A37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.078	0.0013	0.0020		mg/L	1	9/29/2016 2:59:11 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 2:59:11 PM	E37552
Calcium	20	0.50	1.0		mg/L	1	9/29/2016 2:59:11 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 2:59:11 PM	E37552
Copper	0.0052	0.0040	0.0060	J	mg/L	1	9/29/2016 2:59:11 PM	E37552
Iron	0.081	0.020	0.020		mg/L	1	9/29/2016 2:59:11 PM	E37552
Magnesium	2.6	0.50	1.0		mg/L	1	9/29/2016 2:59:11 PM	E37552
Manganese	0.29	0.00032	0.0020	*	mg/L	1	9/29/2016 2:59:11 PM	E37552
Potassium	1.5	0.50	1.0		mg/L	1	9/29/2016 2:59:11 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 2:59:11 PM	E37552
Sodium	690	5.0	10		mg/L	10	9/29/2016 3:01:12 PM	E37552
Zinc	0.0078	0.0028	0.010	J	mg/L	1	9/29/2016 2:59:11 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.11	0.00079	0.0020		mg/L	1	10/3/2016 7:09:21 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 7:09:21 PM	27613
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 7:09:21 PM	27613
Copper	0.0054	0.0030	0.0060	J	mg/L	1	10/3/2016 7:09:21 PM	27613
Iron	0.80	0.020	0.020	*	mg/L	1	10/3/2016 7:09:21 PM	27613
Manganese	0.32	0.00027	0.0020	*	mg/L	1	10/3/2016 7:09:21 PM	27613
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 7:09:21 PM	27613
Zinc	0.0074	0.0027	0.010	J	mg/L	1	10/3/2016 7:09:21 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0033	0.00069	0.0050	J	mg/L	5	9/22/2016 9:36:54 PM	B37425
Lead	0.00067	0.00017	0.00050		mg/L	1	9/21/2016 10:34:43 PM	B37386
Selenium	0.0095	0.0011	0.0050		mg/L	5	9/22/2016 9:36:54 PM	B37425
Uranium	0.019	0.000051	0.00050		mg/L	1	9/21/2016 10:34:43 PM	B37386

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Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 12:15:00 PM
Lab ID: 1609507-004
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0042	0.0011	0.0050	J	mg/L	5	9/22/2016 3:37:53 PM	27613
Lead	0.0018	0.000081	0.00050		mg/L	1	9/21/2016 6:22:25 PM	27613
Selenium	0.011	0.0037	0.020	J	mg/L	20	9/22/2016 3:49:58 PM	27613
Uranium	0.017	0.00087	0.0025		mg/L	5	9/22/2016 3:37:53 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:10:47 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Acenaphthylene	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Aniline	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Anthracene	ND	25	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Azobenzene	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Benz(a)anthracene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Benzo(a)pyrene	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Benzo(b)fluoranthene	ND	29	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Benzo(g,h,i)perylene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Benzo(k)fluoranthene	ND	30	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Benzoic acid	72	26	200	JD	µg/L	10	9/17/2016 9:35:09 PM	27489
Benzyl alcohol	ND	30	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Bis(2-chloroethoxy)methane	ND	28	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Bis(2-chloroethyl)ether	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Bis(2-chloroisopropyl)ether	ND	19	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Bis(2-ethylhexyl)phthalate	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4-Bromophenyl phenyl ether	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Butyl benzyl phthalate	ND	25	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Carbazole	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4-Chloro-3-methylphenol	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4-Chloroaniline	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2-Chloronaphthalene	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2-Chlorophenol	ND	22	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4-Chlorophenyl phenyl ether	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Chrysene	ND	28	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Di-n-butyl phthalate	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Di-n-octyl phthalate	ND	20	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Dibenz(a,h)anthracene	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Dibenzofuran	ND	25	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
1,2-Dichlorobenzene	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
1,3-Dichlorobenzene	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 12:15:00 PM
Lab ID: 1609507-004 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
3,3´-Dichlorobenzidine	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Diethyl phthalate	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Dimethyl phthalate	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2,4-Dichlorophenol	ND	23	200	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2,4-Dimethylphenol	ND	30	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4,6-Dinitro-2-methylphenol	ND	18	200	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2,4-Dinitrophenol	ND	28	200	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2,4-Dinitrotoluene	ND	31	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2,6-Dinitrotoluene	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Fluoranthene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Fluorene	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Hexachlorobenzene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Hexachlorobutadiene	ND	22	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Hexachlorocyclopentadiene	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Hexachloroethane	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Indeno(1,2,3-cd)pyrene	ND	30	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Isophorone	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
1-Methylnaphthalene	170	29	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2-Methylnaphthalene	ND	29	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2-Methylphenol	ND	25	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
3+4-Methylphenol	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
N-Nitrosodi-n-propylamine	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
N-Nitrosodimethylamine	ND	22	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
N-Nitrosodiphenylamine	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Naphthalene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2-Nitroaniline	ND	28	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
3-Nitroaniline	ND	29	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4-Nitroaniline	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Nitrobenzene	ND	28	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2-Nitrophenol	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4-Nitrophenol	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Pentachlorophenol	ND	23	200	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Phenanthrene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Phenol	ND	20	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Pyrene	ND	31	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Pyridine	ND	22	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
1,2,4-Trichlorobenzene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2,4,5-Trichlorophenol	ND	22	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 12:15:00 PM
Lab ID: 1609507-004
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Surr: 2-Fluorophenol	0	0	15-123	SD	%Rec	10	9/17/2016 9:35:09 PM	27489
Surr: Phenol-d5	0	0	15-124	SD	%Rec	10	9/17/2016 9:35:09 PM	27489
Surr: 2,4,6-Tribromophenol	0	0	18.4-134	SD	%Rec	10	9/17/2016 9:35:09 PM	27489
Surr: Nitrobenzene-d5	0	0	28.8-134	SD	%Rec	10	9/17/2016 9:35:09 PM	27489
Surr: 2-Fluorobiphenyl	0	0	35.9-125	SD	%Rec	10	9/17/2016 9:35:09 PM	27489
Surr: 4-Terphenyl-d14	0	0	15-146	SD	%Rec	10	9/17/2016 9:35:09 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	4.0	0.096	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Toluene	0.33	0.12	1.0	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
Ethylbenzene	1.8	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Methyl tert-butyl ether (MTBE)	0.56	0.21	1.0	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2,4-Trimethylbenzene	6.6	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,3,5-Trimethylbenzene	2.9	0.12	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2-Dichloroethane (EDC)	0.98	0.12	1.0	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Naphthalene	26	0.093	2.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1-Methylnaphthalene	13	0.20	4.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
2-Methylnaphthalene	8.3	0.16	4.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Acetone	31	4.9	10		µg/L	1	9/13/2016 3:40:25 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
2-Butanone	8.3	0.74	10	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 3:40:25 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 12:15:00 PM
Lab ID: 1609507-004 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
2-Hexanone	2.2	0.84	10	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
Isopropylbenzene	0.58	0.10	1.0	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
4-Isopropyltoluene	1.8	0.14	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
4-Methyl-2-pentanone	3.2	0.43	10	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
n-Propylbenzene	0.72	0.13	1.0	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
sec-Butylbenzene	0.41	0.12	1.0	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Xylenes, Total	25	0.37	1.5		µg/L	1	9/13/2016 3:40:25 PM	R37165
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	1	9/13/2016 3:40:25 PM	R37165
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	1	9/13/2016 3:40:25 PM	R37165
Surr: Dibromofluoromethane	102	0	70-130		%Rec	1	9/13/2016 3:40:25 PM	R37165
Surr: Toluene-d8	95.6	0	70-130		%Rec	1	9/13/2016 3:40:25 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 12:15:00 PM
Lab ID: 1609507-004 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.70	0.015	0.050		mg/L	1	9/13/2016 3:40:25 PM	G37165
Surr: BFB	144	0	70-130	S	%Rec	1	9/13/2016 3:40:25 PM	G37165

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 1:20:00 PM
Lab ID: 1609507-005
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	9/21/2016 7:32:51 PM	27623
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/13/2016 12:16:57 AM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 12:16:57 AM	27435
Surr: DNOP	162	0	77.1-144	S	%Rec	1	9/13/2016 12:16:57 AM	27435
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.18	0.050	0.10		mg/L	1	9/13/2016 12:09:47 AM	R37147
Chloride	460	2.5	25		mg/L	50	9/24/2016 2:34:58 AM	A37469
Bromide	1.2	0.044	0.10		mg/L	1	9/13/2016 12:09:47 AM	R37147
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/13/2016 12:09:47 AM	R37147
Sulfate	91	2.8	10		mg/L	20	9/13/2016 12:22:11 AM	R37147
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 11:41:57 PM	A37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.050	0.0013	0.0020		mg/L	1	9/29/2016 3:08:47 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 3:08:47 PM	E37552
Calcium	29	0.50	1.0		mg/L	1	9/29/2016 3:08:47 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 3:08:47 PM	E37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 3:08:47 PM	E37552
Iron	0.027	0.020	0.020		mg/L	1	9/29/2016 3:08:47 PM	E37552
Magnesium	5.9	0.50	1.0		mg/L	1	9/29/2016 3:08:47 PM	E37552
Manganese	0.074	0.00032	0.0020	*	mg/L	1	9/29/2016 3:08:47 PM	E37552
Potassium	0.64	0.50	1.0	J	mg/L	1	9/29/2016 3:08:47 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 3:08:47 PM	E37552
Sodium	630	5.0	10		mg/L	10	9/29/2016 3:10:49 PM	E37552
Zinc	0.0095	0.0028	0.010	J	mg/L	1	9/29/2016 3:08:47 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.086	0.00079	0.0020		mg/L	1	10/3/2016 7:21:22 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 7:21:22 PM	27613
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 7:21:22 PM	27613
Copper	0.013	0.0030	0.0060		mg/L	1	10/3/2016 7:21:22 PM	27613
Iron	1.8	0.10	0.10	*	mg/L	5	10/3/2016 7:23:17 PM	27613
Manganese	0.12	0.00027	0.0020	*	mg/L	1	10/3/2016 7:21:22 PM	27613
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 7:21:22 PM	27613
Zinc	0.016	0.0027	0.010		mg/L	1	10/3/2016 7:21:22 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0038	0.00069	0.0050	J	mg/L	5	9/23/2016 11:29:48 AM	A37462
Lead	0.00031	0.00017	0.00050	J	mg/L	1	9/22/2016 9:42:03 PM	B37425

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 1:20:00 PM
Lab ID: 1609507-005 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Selenium	0.0072	0.0011	0.0050		mg/L	5	9/23/2016 11:29:48 AM	A37462
Uranium	0.059	0.00026	0.0025	*	mg/L	5	9/23/2016 11:29:48 AM	A37462
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0047	0.0011	0.0050	J	mg/L	5	9/22/2016 3:52:59 PM	27613
Lead	0.0023	0.000081	0.00050		mg/L	1	9/21/2016 6:31:27 PM	27613
Selenium	0.0069	0.00094	0.0050		mg/L	5	9/22/2016 3:52:59 PM	27613
Uranium	0.058	0.00087	0.0025	*	mg/L	5	9/22/2016 3:52:59 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:12:51 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Benzoic acid	12	2.6	20	J	µg/L	1	9/17/2016 11:52:05 AM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Bis(2-ethylhexyl)phthalate	4.6	2.6	10	J	µg/L	1	9/17/2016 11:52:05 AM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 11:52:05 AM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Di-n-octyl phthalate	3.8	2.0	10	J	µg/L	1	9/17/2016 11:52:05 AM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 1:20:00 PM
Lab ID: 1609507-005
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 11:52:05 AM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/17/2016 11:52:05 AM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 11:52:05 AM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 11:52:05 AM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 11:52:05 AM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 11:52:05 AM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 11:52:05 AM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 11:52:05 AM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 11:52:05 AM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 11:52:05 AM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 11:52:05 AM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 11:52:05 AM	27489

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 1:20:00 PM
Lab ID: 1609507-005 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 11:52:05 AM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Surr: 2-Fluorophenol	22.9	0	15-123		%Rec	1	9/17/2016 11:52:05 AM	27489
Surr: Phenol-d5	21.2	0	15-124		%Rec	1	9/17/2016 11:52:05 AM	27489
Surr: 2,4,6-Tribromophenol	58.0	0	18.4-134		%Rec	1	9/17/2016 11:52:05 AM	27489
Surr: Nitrobenzene-d5	64.0	0	28.8-134		%Rec	1	9/17/2016 11:52:05 AM	27489
Surr: 2-Fluorobiphenyl	53.6	0	35.9-125		%Rec	1	9/17/2016 11:52:05 AM	27489
Surr: 4-Terphenyl-d14	38.5	0	15-146		%Rec	1	9/17/2016 11:52:05 AM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	0.47	0.19	2.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
Toluene	ND	0.24	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Ethylbenzene	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Methyl tert-butyl ether (MTBE)	750	4.2	20		µg/L	20	9/13/2016 4:09:18 PM	R37165
1,2,4-Trimethylbenzene	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,3,5-Trimethylbenzene	ND	0.23	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2-Dichloroethane (EDC)	17	0.23	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Naphthalene	ND	0.19	4.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1-Methylnaphthalene	ND	0.41	8.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
2-Methylnaphthalene	ND	0.32	8.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Acetone	ND	9.8	20		µg/L	2	9/13/2016 4:38:15 PM	R37165
Bromobenzene	ND	0.20	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Bromodichloromethane	ND	0.28	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Bromoform	ND	0.20	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Bromomethane	ND	1.6	6.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
2-Butanone	ND	1.5	20		µg/L	2	9/13/2016 4:38:15 PM	R37165
Carbon disulfide	ND	1.2	20		µg/L	2	9/13/2016 4:38:15 PM	R37165
Carbon Tetrachloride	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Chlorobenzene	ND	0.23	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Chloroethane	ND	0.38	4.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Chloroform	ND	0.18	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Chloromethane	ND	0.43	6.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
2-Chlorotoluene	ND	0.80	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
4-Chlorotoluene	ND	0.26	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
cis-1,2-DCE	1.5	0.25	2.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
cis-1,3-Dichloropropene	ND	0.21	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.47	4.0		µg/L	2	9/13/2016 4:38:15 PM	R37165

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 1:20:00 PM
Lab ID: 1609507-005 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Dibromochloromethane	ND	0.17	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Dibromomethane	ND	0.24	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2-Dichlorobenzene	ND	0.80	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,3-Dichlorobenzene	ND	0.29	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,4-Dichlorobenzene	ND	0.29	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Dichlorodifluoromethane	ND	0.71	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1-Dichloroethane	12	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1-Dichloroethene	26	0.21	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2-Dichloropropane	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,3-Dichloropropane	ND	0.31	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
2,2-Dichloropropane	ND	0.33	4.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1-Dichloropropene	ND	0.27	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Hexachlorobutadiene	ND	0.40	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
2-Hexanone	ND	1.7	20		µg/L	2	9/13/2016 4:38:15 PM	R37165
Isopropylbenzene	0.27	0.21	2.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
4-Isopropyltoluene	ND	0.28	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
4-Methyl-2-pentanone	ND	0.86	20		µg/L	2	9/13/2016 4:38:15 PM	R37165
Methylene Chloride	1.0	0.37	6.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
n-Butylbenzene	ND	0.32	6.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
n-Propylbenzene	ND	0.26	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
sec-Butylbenzene	1.1	0.25	2.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
Styrene	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
tert-Butylbenzene	ND	0.23	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.26	4.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Tetrachloroethene (PCE)	ND	0.30	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
trans-1,2-DCE	ND	0.80	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
trans-1,3-Dichloropropene	ND	0.21	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2,3-Trichlorobenzene	ND	0.23	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2,4-Trichlorobenzene	ND	0.27	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1,1-Trichloroethane	0.61	0.18	2.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1,2-Trichloroethane	1.1	0.25	2.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
Trichloroethene (TCE)	ND	0.35	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Trichlorofluoromethane	ND	0.41	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2,3-Trichloropropane	ND	0.40	4.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Vinyl chloride	ND	0.39	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Xylenes, Total	ND	0.73	3.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	2	9/13/2016 4:38:15 PM	R37165
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	2	9/13/2016 4:38:15 PM	R37165

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 1:20:00 PM
Lab ID: 1609507-005 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: Dibromofluoromethane	105	0	70-130		%Rec	2	9/13/2016 4:38:15 PM	R37165
Surr: Toluene-d8	96.0	0	70-130		%Rec	2	9/13/2016 4:38:15 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.79	0.030	0.10		mg/L	2	9/13/2016 4:38:15 PM	G37165
Surr: BFB	99.5	0	70-130		%Rec	2	9/13/2016 4:38:15 PM	G37165

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB090916
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 2:20:00 PM
Lab ID: 1609507-006
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/13/2016 12:38:49 AM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 12:38:49 AM	27435
Surr: DNOP	160	0	77.1-144	S	%Rec	1	9/13/2016 12:38:49 AM	27435
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.050	0.10		mg/L	1	9/13/2016 12:34:35 AM	R37147
Chloride	ND	0.051	0.50		mg/L	1	9/13/2016 12:34:35 AM	R37147
Bromide	ND	0.044	0.10		mg/L	1	9/13/2016 12:34:35 AM	R37147
Phosphorus, Orthophosphate (As P)	0.28	0.076	0.50	JH	mg/L	1	9/13/2016 12:34:35 AM	R37147
Sulfate	ND	0.14	0.50		mg/L	1	9/13/2016 12:34:35 AM	R37147
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 11:54:21 PM	A37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	ND	0.0013	0.0020		mg/L	1	9/29/2016 3:12:37 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 3:12:37 PM	E37552
Calcium	ND	0.50	1.0		mg/L	1	9/29/2016 3:12:37 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 3:12:37 PM	E37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 3:12:37 PM	E37552
Iron	ND	0.020	0.020		mg/L	1	9/29/2016 3:12:37 PM	E37552
Magnesium	ND	0.50	1.0		mg/L	1	9/29/2016 3:12:37 PM	E37552
Manganese	ND	0.00032	0.0020		mg/L	1	9/29/2016 3:12:37 PM	E37552
Potassium	ND	0.50	1.0		mg/L	1	9/29/2016 3:12:37 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 3:12:37 PM	E37552
Sodium	ND	0.50	1.0		mg/L	1	9/29/2016 3:12:37 PM	E37552
Zinc	0.035	0.0028	0.010		mg/L	1	9/29/2016 3:12:37 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	ND	0.00079	0.0020		mg/L	1	10/3/2016 7:25:14 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 7:25:14 PM	27613
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 7:25:14 PM	27613
Copper	ND	0.0030	0.0060		mg/L	1	10/3/2016 7:25:14 PM	27613
Iron	ND	0.020	0.020		mg/L	1	10/3/2016 7:25:14 PM	27613
Manganese	0.00070	0.00027	0.0020	J	mg/L	1	10/3/2016 7:25:14 PM	27613
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 7:25:14 PM	27613
Zinc	ND	0.0027	0.010		mg/L	1	10/3/2016 7:25:14 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	ND	0.00014	0.0010		mg/L	1	9/22/2016 9:47:11 PM	B37425
Lead	ND	0.00017	0.00050		mg/L	1	9/22/2016 9:47:11 PM	B37425
Selenium	ND	0.00021	0.0010		mg/L	1	9/22/2016 9:47:11 PM	B37425
Uranium	ND	0.000051	0.00050		mg/L	1	9/23/2016 11:32:51 AM	A37462

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB090916
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 2:20:00 PM
Lab ID: 1609507-006
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.00022	0.00021	0.0010	J	mg/L	1	9/21/2016 6:34:27 PM	27613
Lead	ND	0.000081	0.00050		mg/L	1	9/21/2016 6:34:27 PM	27613
Selenium	ND	0.00019	0.0010		mg/L	1	9/21/2016 6:34:27 PM	27613
Uranium	ND	0.00017	0.00050		mg/L	1	9/21/2016 6:34:27 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:14:55 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Benzoic acid	7.2	2.6	20	J	µg/L	1	9/17/2016 12:19:45 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Bis(2-ethylhexyl)phthalate	3.3	2.6	10	J	µg/L	1	9/17/2016 12:19:45 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 12:19:45 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Di-n-octyl phthalate	3.5	2.0	10	J	µg/L	1	9/17/2016 12:19:45 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 12:19:45 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB090916
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 2:20:00 PM
Lab ID: 1609507-006
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/17/2016 12:19:45 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 12:19:45 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 12:19:45 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 12:19:45 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 12:19:45 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 12:19:45 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 12:19:45 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 12:19:45 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 12:19:45 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 12:19:45 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 12:19:45 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 12:19:45 PM	27489

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB090916
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 2:20:00 PM
Lab ID: 1609507-006
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Surr: 2-Fluorophenol	50.7	0	15-123		%Rec	1	9/17/2016 12:19:45 PM	27489
Surr: Phenol-d5	36.9	0	15-124		%Rec	1	9/17/2016 12:19:45 PM	27489
Surr: 2,4,6-Tribromophenol	94.1	0	18.4-134		%Rec	1	9/17/2016 12:19:45 PM	27489
Surr: Nitrobenzene-d5	68.3	0	28.8-134		%Rec	1	9/17/2016 12:19:45 PM	27489
Surr: 2-Fluorobiphenyl	65.4	0	35.9-125		%Rec	1	9/17/2016 12:19:45 PM	27489
Surr: 4-Terphenyl-d14	48.8	0	15-146		%Rec	1	9/17/2016 12:19:45 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Acetone	6.4	4.9	10	J	µg/L	1	9/13/2016 5:07:10 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 5:07:10 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 5:07:10 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB090916
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 2:20:00 PM
Lab ID: 1609507-006
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 5:07:10 PM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 5:07:10 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 5:07:10 PM	R37165
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	1	9/13/2016 5:07:10 PM	R37165
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	9/13/2016 5:07:10 PM	R37165
Surr: Dibromofluoromethane	103	0	70-130		%Rec	1	9/13/2016 5:07:10 PM	R37165
Surr: Toluene-d8	94.1	0	70-130		%Rec	1	9/13/2016 5:07:10 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB090916
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 2:20:00 PM
Lab ID: 1609507-006
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/13/2016 5:07:10 PM	G37165
Surr: BFB	99.8	0	70-130		%Rec	1	9/13/2016 5:07:10 PM	G37165

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 3:00:00 PM
Lab ID: 1609507-007
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	9/21/2016 7:48:01 PM	27623
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/13/2016 1:00:36 AM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 1:00:36 AM	27435
Surr: DNOP	167	0	77.1-144	S	%Rec	1	9/13/2016 1:00:36 AM	27435
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.29	0.050	0.10		mg/L	1	9/13/2016 12:59:24 AM	R37147
Chloride	910	2.5	25		mg/L	50	9/24/2016 2:47:23 AM	A37469
Bromide	2.3	0.044	0.10		mg/L	1	9/13/2016 12:59:24 AM	R37147
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/13/2016 12:59:24 AM	R37147
Sulfate	60	2.8	10		mg/L	20	9/13/2016 1:11:49 AM	R37147
Nitrate+Nitrite as N	5.7	0.46	1.0		mg/L	5	9/18/2016 12:06:46 AM	A37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.059	0.0013	0.0020		mg/L	1	9/29/2016 3:16:36 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 3:16:36 PM	E37552
Calcium	13	0.50	1.0		mg/L	1	9/29/2016 3:16:36 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 3:16:36 PM	E37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 3:16:36 PM	E37552
Iron	ND	0.020	0.020		mg/L	1	9/29/2016 3:16:36 PM	E37552
Magnesium	1.6	0.50	1.0		mg/L	1	9/29/2016 3:16:36 PM	E37552
Manganese	0.0012	0.00032	0.0020	J	mg/L	1	9/29/2016 3:16:36 PM	E37552
Potassium	1.5	0.50	1.0		mg/L	1	9/29/2016 3:16:36 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 3:16:36 PM	E37552
Sodium	640	5.0	10		mg/L	10	9/29/2016 3:18:39 PM	E37552
Zinc	0.0098	0.0028	0.010	J	mg/L	1	9/29/2016 3:16:36 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.12	0.00079	0.0020		mg/L	1	10/3/2016 7:29:42 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 7:29:42 PM	27613
Chromium	0.0030	0.0027	0.0060	J	mg/L	1	10/3/2016 7:29:42 PM	27613
Copper	0.0031	0.0030	0.0060	J	mg/L	1	10/3/2016 7:29:42 PM	27613
Iron	2.5	0.10	0.10	*	mg/L	5	10/3/2016 7:31:26 PM	27613
Manganese	0.12	0.00027	0.0020	*	mg/L	1	10/3/2016 7:29:42 PM	27613
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 7:29:42 PM	27613
Zinc	0.018	0.0027	0.010		mg/L	1	10/3/2016 7:29:42 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	ND	0.0069	0.050		mg/L	50	9/23/2016 11:48:12 AM	A37462
Lead	ND	0.00017	0.00050		mg/L	1	9/22/2016 9:52:19 PM	B37425

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 3:00:00 PM
Lab ID: 1609507-007
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Selenium	0.048	0.0011	0.0050		mg/L	5	9/23/2016 11:38:58 AM	A37462
Uranium	0.014	0.000051	0.00050		mg/L	1	9/23/2016 11:35:54 AM	A37462
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0061	0.0021	0.010	J	mg/L	10	9/22/2016 4:05:05 PM	27613
Lead	0.0037	0.000081	0.00050		mg/L	1	9/21/2016 6:37:28 PM	27613
Selenium	0.045	0.0094	0.050	J	mg/L	50	9/22/2016 4:08:05 PM	27613
Uranium	0.015	0.00017	0.00050		mg/L	1	9/21/2016 6:37:28 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:21:14 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Benzoic acid	9.8	2.6	20	J	µg/L	1	9/17/2016 12:47:27 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Bis(2-ethylhexyl)phthalate	3.1	2.6	10	J	µg/L	1	9/17/2016 12:47:27 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 12:47:27 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Di-n-octyl phthalate	3.5	2.0	10	J	µg/L	1	9/17/2016 12:47:27 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 3:00:00 PM
Lab ID: 1609507-007
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 12:47:27 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/17/2016 12:47:27 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 12:47:27 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 12:47:27 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 12:47:27 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 12:47:27 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 12:47:27 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 12:47:27 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 12:47:27 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 12:47:27 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 12:47:27 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 12:47:27 PM	27489

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 3:00:00 PM
Lab ID: 1609507-007
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 12:47:27 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Surr: 2-Fluorophenol	39.9	0	15-123		%Rec	1	9/17/2016 12:47:27 PM	27489
Surr: Phenol-d5	31.5	0	15-124		%Rec	1	9/17/2016 12:47:27 PM	27489
Surr: 2,4,6-Tribromophenol	81.1	0	18.4-134		%Rec	1	9/17/2016 12:47:27 PM	27489
Surr: Nitrobenzene-d5	60.7	0	28.8-134		%Rec	1	9/17/2016 12:47:27 PM	27489
Surr: 2-Fluorobiphenyl	56.1	0	35.9-125		%Rec	1	9/17/2016 12:47:27 PM	27489
Surr: 4-Terphenyl-d14	42.3	0	15-146		%Rec	1	9/17/2016 12:47:27 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Methyl tert-butyl ether (MTBE)	0.41	0.21	1.0	J	µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2-Dichloroethane (EDC)	2.4	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Acetone	ND	4.9	10		µg/L	1	9/13/2016 5:35:54 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 5:35:54 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 5:35:54 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 5:35:54 PM	R37165

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 3:00:00 PM
Lab ID: 1609507-007 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1-Dichloroethane	2.5	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1-Dichloroethene	6.1	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 5:35:54 PM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 5:35:54 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1,2-Trichloroethane	0.53	0.13	1.0	J	µg/L	1	9/13/2016 5:35:54 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 5:35:54 PM	R37165
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	1	9/13/2016 5:35:54 PM	R37165
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	9/13/2016 5:35:54 PM	R37165

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 3:00:00 PM
Lab ID: 1609507-007 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: Dibromofluoromethane	103	0	70-130		%Rec	1	9/13/2016 5:35:54 PM	R37165
Surr: Toluene-d8	96.3	0	70-130		%Rec	1	9/13/2016 5:35:54 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/13/2016 5:35:54 PM	G37165
Surr: BFB	98.8	0	70-130		%Rec	1	9/13/2016 5:35:54 PM	G37165

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Qualifiers:

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP03
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016
Lab ID: 1609507-008
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/13/2016 1:22:32 AM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 1:22:32 AM	27435
Surr: DNOP	168	0	77.1-144	S	%Rec	1	9/13/2016 1:22:32 AM	27435
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	1.0	2.0		mg/L	20	9/13/2016 2:01:28 AM	R37147
Chloride	18000	51	500		mg/L	1000	9/24/2016 2:59:47 AM	A37469
Bromide	12	0.87	2.0		mg/L	20	9/13/2016 2:01:28 AM	R37147
Phosphorus, Orthophosphate (As P)	6.4	1.5	10	J	mg/L	20	9/13/2016 2:01:28 AM	R37147
Sulfate	1600	140	500		mg/L	1000	9/24/2016 2:59:47 AM	A37469
Nitrate+Nitrite as N	ND	4.6	10		mg/L	50	9/28/2016 3:57:49 PM	R37561
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.086	0.0013	0.0020		mg/L	1	9/29/2016 3:20:30 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 3:20:30 PM	E37552
Calcium	3000	50	100		mg/L	100	9/29/2016 3:26:32 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 3:20:30 PM	E37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 3:20:30 PM	E37552
Iron	0.086	0.020	0.020		mg/L	1	9/29/2016 3:20:30 PM	E37552
Magnesium	470	2.5	5.0		mg/L	5	9/29/2016 3:22:39 PM	E37552
Manganese	23	0.032	0.20	*	mg/L	100	9/29/2016 3:26:32 PM	E37552
Potassium	8.9	0.50	1.0		mg/L	1	9/29/2016 3:20:30 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 3:20:30 PM	E37552
Sodium	6500	50	100		mg/L	100	9/29/2016 3:26:32 PM	E37552
Zinc	0.016	0.0028	0.010		mg/L	1	9/29/2016 3:20:30 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.17	0.0040	0.010		mg/L	5	10/3/2016 7:35:27 PM	27613
Cadmium	ND	0.0074	0.010		mg/L	5	10/3/2016 7:35:27 PM	27613
Chromium	ND	0.013	0.030		mg/L	5	10/3/2016 7:35:27 PM	27613
Copper	ND	0.015	0.030		mg/L	5	10/3/2016 7:35:27 PM	27613
Iron	4.3	0.10	0.10	*	mg/L	5	10/3/2016 7:35:27 PM	27613
Manganese	22	0.014	0.10	*	mg/L	50	10/5/2016 1:52:15 PM	27613
Silver	ND	0.0077	0.025		mg/L	5	10/3/2016 7:35:27 PM	27613
Zinc	0.029	0.013	0.050	J	mg/L	5	10/3/2016 7:35:27 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.025	0.0069	0.050	J*	mg/L	50	9/23/2016 12:00:25 PM	A37462
Lead	ND	0.00084	0.0025		mg/L	5	9/23/2016 11:51:15 AM	A37462
Selenium	0.099	0.021	0.10	J*	mg/L	100	9/23/2016 2:04:19 PM	B37462
Uranium	0.24	0.0026	0.025	*	mg/L	50	9/23/2016 12:00:25 PM	A37462

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP03
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016
Lab ID: 1609507-008
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.025	0.011	0.050	J*	mg/L	50	9/22/2016 4:18:31 PM	27613
Lead	0.0074	0.00041	0.0025		mg/L	5	9/22/2016 4:11:06 PM	27613
Selenium	0.079	0.019	0.10	J*	mg/L	100	9/22/2016 4:21:32 PM	27613
Uranium	0.25	0.0087	0.025	*	mg/L	50	9/22/2016 4:18:31 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:23:20 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Benzoic acid	13	2.6	20	J	µg/L	1	9/17/2016 1:15:10 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Bis(2-ethylhexyl)phthalate	3.4	2.6	10	J	µg/L	1	9/17/2016 1:15:10 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 1:15:10 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Di-n-octyl phthalate	3.4	2.0	10	J	µg/L	1	9/17/2016 1:15:10 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 1:15:10 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489

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Lab ID: 1609507-008
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/17/2016 1:15:10 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 1:15:10 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 1:15:10 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 1:15:10 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 1:15:10 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 1:15:10 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 1:15:10 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 1:15:10 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 1:15:10 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 1:15:10 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 1:15:10 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 1:15:10 PM	27489

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Lab ID: 1609507-008
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Surr: 2-Fluorophenol	16.4	0	15-123		%Rec	1	9/17/2016 1:15:10 PM	27489
Surr: Phenol-d5	10.0	0	15-124	S	%Rec	1	9/17/2016 1:15:10 PM	27489
Surr: 2,4,6-Tribromophenol	50.3	0	18.4-134		%Rec	1	9/17/2016 1:15:10 PM	27489
Surr: Nitrobenzene-d5	54.2	0	28.8-134		%Rec	1	9/17/2016 1:15:10 PM	27489
Surr: 2-Fluorobiphenyl	44.4	0	35.9-125		%Rec	1	9/17/2016 1:15:10 PM	27489
Surr: 4-Terphenyl-d14	29.3	0	15-146		%Rec	1	9/17/2016 1:15:10 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Acetone	ND	4.9	10		µg/L	1	9/13/2016 6:04:36 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 6:04:36 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 6:04:36 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165

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Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 6:04:36 PM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 6:04:36 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 6:04:36 PM	R37165
Surr: 1,2-Dichloroethane-d4	99.3	0	70-130		%Rec	1	9/13/2016 6:04:36 PM	R37165
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	1	9/13/2016 6:04:36 PM	R37165
Surr: Dibromofluoromethane	101	0	70-130		%Rec	1	9/13/2016 6:04:36 PM	R37165
Surr: Toluene-d8	96.2	0	70-130		%Rec	1	9/13/2016 6:04:36 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

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Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/13/2016 6:04:36 PM	G37165
Surr: BFB	99.0	0	70-130		%Rec	1	9/13/2016 6:04:36 PM	G37165

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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 3RD QTR (MKTF)
Collection Date:
Lab ID: 1609507-009
Matrix: TRIP BLANK
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Acetone	6.8	4.9	10	J	µg/L	1	9/13/2016 6:33:17 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 6:33:17 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 6:33:17 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 6:33:17 PM	R37165

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 3RD QTR (MKTF)
Collection Date:
Lab ID: 1609507-009
Matrix: TRIP BLANK
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 6:33:17 PM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 6:33:17 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 6:33:17 PM	R37165
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	1	9/13/2016 6:33:17 PM	R37165
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	9/13/2016 6:33:17 PM	R37165
Surr: Dibromofluoromethane	104	0	70-130		%Rec	1	9/13/2016 6:33:17 PM	R37165
Surr: Toluene-d8	96.2	0	70-130		%Rec	1	9/13/2016 6:33:17 PM	R37165

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **MB-E**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **E37552**	RunNo: **37552**
Prep Date:	Analysis Date: **9/29/2016**	SeqNo: **1169123** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-E**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **E37552**	RunNo: **37552**
Prep Date:	Analysis Date: **9/29/2016**	SeqNo: **1169127** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.9	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Calcium	50	1.0	50.00	0	99.5	85	115			
Chromium	0.49	0.0060	0.5000	0	98.0	85	115			
Copper	0.50	0.0060	0.5000	0	99.5	85	115			
Iron	0.50	0.020	0.5000	0	99.8	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Manganese	0.50	0.0020	0.5000	0	99.4	85	115			
Potassium	49	1.0	50.00	0	97.3	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	49	1.0	50.00	0	98.6	85	115			
Zinc	0.49	0.010	0.5000	0	97.6	85	115			

Sample ID **LLLCS-E**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **E37552**	RunNo: **37552**
Prep Date:	Analysis Date: **9/29/2016**	SeqNo: **1169128** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0018	0.0020	0.002000	0	91.0	50	150			J
Cadmium	0.0021	0.0020	0.002000	0	103	50	150			
Calcium	0.51	1.0	0.5000	0	102	50	150			J
Chromium	0.0064	0.0060	0.006000	0	107	50	150			

Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **LLLCS-E**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **E37552**	RunNo: **37552**
Prep Date:	Analysis Date: **9/29/2016**	SeqNo: **1169128** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0081	0.0060	0.006000	0	135	50	150			
Iron	0.021	0.020	0.02000	0	106	50	150			
Magnesium	0.52	1.0	0.5000	0	105	50	150			J
Manganese	0.0020	0.0020	0.002000	0	101	50	150			
Potassium	0.53	1.0	0.5000	0	105	50	150			J
Silver	0.0050	0.0050	0.005000	0	100	50	150			
Sodium	0.50	1.0	0.5000	0	100	50	150			J
Zinc	0.0050	0.010	0.005000	0	101	50	150			J

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **MB-27613**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **27613**	RunNo: **37369**
Prep Date: **9/20/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161052** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	0.00038	0.0020								J
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-27613**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **27613**	RunNo: **37369**
Prep Date: **9/20/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161053** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.6	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.48	0.0060	0.5000	0	96.6	85	115			
Copper	0.48	0.0060	0.5000	0	95.5	85	115			
Iron	0.49	0.020	0.5000	0	97.6	85	115			
Manganese	0.48	0.0020	0.5000	0	95.7	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			
Zinc	0.48	0.010	0.5000	0	95.9	85	115			

Sample ID **LLLCS-27613**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **27613**	RunNo: **37369**
Prep Date: **9/20/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161054** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0024	0.0020	0.002000	0	121	50	150			
Cadmium	0.0020	0.0020	0.002000	0	101	50	150			
Chromium	0.0062	0.0060	0.006000	0	104	50	150			
Copper	0.0053	0.0060	0.006000	0	88.2	50	150			J
Manganese	0.0020	0.0020	0.002000	0	102	50	150			
Silver	0.0051	0.0050	0.005000	0	102	50	150			
Zinc	0.0054	0.010	0.005000	0	109	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**LLLCS-27613**	SampType: **LCSLL**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID: **27613**			RunNo: **37369**					
Prep Date:	**9/20/2016**	Analysis Date: **9/21/2016**			SeqNo: **1161124**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.020	0.020	0.02000	0	102	50	150			

Sample ID	**1609507-001FMS**	SampType: **MS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-44**	Batch ID: **27613**			RunNo: **37643**					
Prep Date:	**9/20/2016**	Analysis Date: **10/3/2016**			SeqNo: **1171758**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.71	0.0020	0.5000	0.2642	90.0	70	130			
Cadmium	0.47	0.0020	0.5000	0	93.2	70	130			
Chromium	0.48	0.0060	0.5000	0.03096	89.8	70	130			
Copper	0.52	0.0060	0.5000	0.01865	99.6	70	130			
Manganese	0.96	0.0020	0.5000	0.5286	85.7	70	130			
Zinc	0.55	0.010	0.5000	0.08861	92.3	70	130			

Sample ID	**1609507-001FMSD**	SampType: **MSD**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-44**	Batch ID: **27613**			RunNo: **37643**					
Prep Date:	**9/20/2016**	Analysis Date: **10/3/2016**			SeqNo: **1171759**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.67	0.0020	0.5000	0.2642	80.8	70	130	6.69	20	
Cadmium	0.44	0.0020	0.5000	0	88.3	70	130	5.43	20	
Chromium	0.45	0.0060	0.5000	0.03096	83.8	70	130	6.43	20	
Copper	0.48	0.0060	0.5000	0.01865	92.4	70	130	7.12	20	
Manganese	0.90	0.0020	0.5000	0.5286	73.3	70	130	6.72	20	
Zinc	0.51	0.010	0.5000	0.08861	84.5	70	130	7.33	20	

Sample ID	**1609507-002GMS**	SampType: **MS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-25**	Batch ID: **27613**			RunNo: **37643**					
Prep Date:	**9/20/2016**	Analysis Date: **10/3/2016**			SeqNo: **1171767**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.93	0.0020	0.5000	0.4482	96.1	70	130			
Cadmium	0.50	0.0020	0.5000	0	100	70	130			
Chromium	0.49	0.0060	0.5000	0	97.1	70	130			
Copper	0.54	0.0060	0.5000	0.005950	107	70	130			
Zinc	0.49	0.010	0.5000	0.01169	95.5	70	130			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**1609507-002GMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-25**	Batch ID:	**27613**		RunNo:	**37643**				
Prep Date:	**9/20/2016**	Analysis Date:	**10/3/2016**		SeqNo:	**1171768**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.94	0.0020	0.5000	0.4482	97.4	70	130	0.711	20	
Cadmium	0.51	0.0020	0.5000	0	101	70	130	1.18	20	
Chromium	0.49	0.0060	0.5000	0	98.9	70	130	1.85	20	
Copper	0.55	0.0060	0.5000	0.005950	108	70	130	1.15	20	
Zinc	0.50	0.010	0.5000	0.01169	96.9	70	130	1.39	20	

Sample ID	**1609507-002GMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-25**	Batch ID:	**27613**		RunNo:	**37643**				
Prep Date:	**9/20/2016**	Analysis Date:	**10/3/2016**		SeqNo:	**1171770**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	3.9	0.010	0.5000	3.385	93.8	70	130			

Sample ID	**1609507-002GMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-25**	Batch ID:	**27613**		RunNo:	**37643**				
Prep Date:	**9/20/2016**	Analysis Date:	**10/3/2016**		SeqNo:	**1171771**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	3.9	0.010	0.5000	3.385	111	70	130	2.19	20	

Sample ID	**1609507-001FMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-44**	Batch ID:	**27613**		RunNo:	**37699**				
Prep Date:	**9/20/2016**	Analysis Date:	**10/5/2016**		SeqNo:	**1174290**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.026	0.025	0.1000	0	26.1	70	130			S

Sample ID	**1609507-001FMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-44**	Batch ID:	**27613**		RunNo:	**37699**				
Prep Date:	**9/20/2016**	Analysis Date:	**10/5/2016**		SeqNo:	**1174294**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.027	0.025	0.1000	0	27.1	70	130	3.76	20	S

Sample ID	**1609507-002GMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-25**	Batch ID:	**28020**		RunNo:	**37932**				
Prep Date:	**10/12/2016**	Analysis Date:	**10/13/2016**		SeqNo:	**1181988**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.096	0.0050	0.1000	0	95.7	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**1609507-002GMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-25**	Batch ID:	**28020**		RunNo:	**37932**				
Prep Date:	**10/12/2016**	Analysis Date:	**10/13/2016**		SeqNo:	**1181989**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.097	0.0050	0.1000	0	97.0	70	130	1.37	20	

Sample ID	**MB-28020**	SampType:	**MBLK**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**PBW**	Batch ID:	**28020**		RunNo:	**37932**				
Prep Date:	**10/12/2016**	Analysis Date:	**10/13/2016**		SeqNo:	**1182663**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID	**LCS-28020**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**LCSW**	Batch ID:	**28020**		RunNo:	**37932**				
Prep Date:	**10/12/2016**	Analysis Date:	**10/13/2016**		SeqNo:	**1182664**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.096	0.0050	0.1000	0	95.6	85	115			

Sample ID	**LLLCS-28020**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**BatchQC**	Batch ID:	**28020**		RunNo:	**37932**				
Prep Date:	**10/12/2016**	Analysis Date:	**10/13/2016**		SeqNo:	**1182665**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.0042	0.0050	0.005000	0	85.0	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B37386**	RunNo: **37386**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1162018** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	93.8	85	115			
Lead	0.012	0.00050	0.01250	0	97.0	85	115			
Selenium	0.025	0.0010	0.02500	0	99.9	85	115			
Uranium	0.013	0.00050	0.01250	0	103	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37386**	RunNo: **37386**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1162021** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00098	0.0010	0.001000	0	98.2	50	150			J
Lead	0.00050	0.00050	0.0005000	0	100	50	150			
Selenium	0.00098	0.0010	0.001000	0	97.5	50	150			J
Uranium	0.00051	0.00050	0.0005000	0	101	50	150			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B37386**	RunNo: **37386**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1162023** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B37425**	RunNo: **37425**
Prep Date:	Analysis Date: **9/22/2016**	SeqNo: **1163315** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	90.1	85	115			
Lead	0.012	0.00050	0.01250	0	93.2	85	115			
Selenium	0.023	0.0010	0.02500	0	90.3	85	115			
Uranium	0.011	0.00050	0.01250	0	90.9	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37425**	RunNo: **37425**
Prep Date:	Analysis Date: **9/22/2016**	SeqNo: **1163316** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37425**	RunNo: **37425**
Prep Date:	Analysis Date: **9/22/2016**	SeqNo: **1163316** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00091	0.0010	0.001000	0	91.5	50	150			J
Lead	0.00052	0.00050	0.0005000	0	104	50	150			
Selenium	0.00092	0.0010	0.001000	0	91.9	50	150			J
Uranium	0.00048	0.00050	0.0005000	0	95.7	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B37425**	RunNo: **37425**
Prep Date:	Analysis Date: **9/22/2016**	SeqNo: **1163317** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **1609507-008EMSLL**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **DUP03**	Batch ID: **A37462**	RunNo: **37462**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164673** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.068	0.0025	0.06250	0	108	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A37462**	RunNo: **37462**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164727** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	92.9	85	115			
Lead	0.012	0.00050	0.01250	0	96.1	85	115			
Selenium	0.023	0.0010	0.02500	0	91.2	85	115			
Uranium	0.012	0.00050	0.01250	0	93.0	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B37462**	RunNo: **37462**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164728** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.024	0.0010	0.02500	0	95.2	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A37462**	RunNo: **37462**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164730** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00089	0.0010	0.001000	0	89.2	50	150			J
Lead	0.00050	0.00050	0.0005000	0	99.9	50	150			J
Selenium	0.00087	0.0010	0.001000	0	87.1	50	150			J
Uranium	0.00046	0.00050	0.0005000	0	92.8	50	150			J

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37462**	RunNo: **37462**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164731** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.0011	0.0010	0.001000	0	112	50	150			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A37462**	RunNo: **37462**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164733** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B37462**	RunNo: **37462**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164734** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**1609507-004FMSDL**	SampType:	**MSDLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-42**	Batch ID:	**27613**		RunNo:	**37385**				
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161935**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.013	0.00050	0.01250	0.001838	89.7	70	130	8.66	20	

Sample ID	**1609507-004FMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-42**	Batch ID:	**27613**		RunNo:	**37385**				
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161936**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.014	0.00050	0.01250	0.001838	99.2	70	130			

Sample ID	**MB-27613**	SampType:	**MBLK**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**PBW**	Batch ID:	**27613**		RunNo:	**37385**				
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161948**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-27613**	SampType:	**LCS**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**LCSW**	Batch ID:	**27613**		RunNo:	**37385**				
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161951**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	91.9	85	115			
Lead	0.011	0.00050	0.01250	0	90.1	85	115			
Selenium	0.024	0.0010	0.02500	0	94.8	85	115			
Uranium	0.012	0.00050	0.01250	0	95.0	85	115			

Sample ID	**MSLLLCS-27613**	SampType:	**LCSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**BatchQC**	Batch ID:	**27613**		RunNo:	**37385**				
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161954**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	114	50	150			
Lead	0.00046	0.00050	0.0005000	0	92.7	50	150			J
Selenium	0.00097	0.0010	0.001000	0	96.7	50	150			J
Uranium	0.00046	0.00050	0.0005000	0	92.7	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**1609507-003FMSLL**	SampType: **MSLL**		TestCode: **200.8 ICPMS Metals:Total**					
Client ID:	**MKTF-43**	Batch ID: **27613**		RunNo: **37417**					
Prep Date:	**9/20/2016**	Analysis Date: **9/22/2016**		SeqNo: **1162922**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.018	0.0025	0.01250	0.004079	108	70	130			

Sample ID	**1609507-004FMSDL**	SampType: **MSDLL**		TestCode: **200.8 ICPMS Metals:Total**					
Client ID:	**MKTF-42**	Batch ID: **27613**		RunNo: **37417**					
Prep Date:	**9/20/2016**	Analysis Date: **9/22/2016**		SeqNo: **1162926**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0050	0.02500	0.004203	97.9	70	130	0.838	20	
Uranium	0.030	0.0025	0.01250	0.01716	100	70	130	2.04	20	

Sample ID	**1609507-004FMSLL**	SampType: **MSLL**		TestCode: **200.8 ICPMS Metals:Total**					
Client ID:	**MKTF-42**	Batch ID: **27613**		RunNo: **37417**					
Prep Date:	**9/20/2016**	Analysis Date: **9/22/2016**		SeqNo: **1162927**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0050	0.02500	0.004203	98.9	70	130			
Uranium	0.030	0.0025	0.01250	0.01716	105	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**MB-27664**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**27664**	RunNo:	**37436**					
Prep Date:	**9/22/2016**	Analysis Date:	**9/23/2016**	SeqNo:	**1163804**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-27664**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**27664**	RunNo:	**37436**					
Prep Date:	**9/22/2016**	Analysis Date:	**9/23/2016**	SeqNo:	**1163806**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	106	80	120			

Sample ID	**1609507-001FMS**	SampType:	**MS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**MKTF-44**	Batch ID:	**27664**	RunNo:	**37436**					
Prep Date:	**9/22/2016**	Analysis Date:	**9/23/2016**	SeqNo:	**1163810**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0060	0.00020	0.005000	.00009952	118	75	125			

Sample ID	**1609507-001FMSD**	SampType:	**MSD**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**MKTF-44**	Batch ID:	**27664**	RunNo:	**37436**					
Prep Date:	**9/22/2016**	Analysis Date:	**9/23/2016**	SeqNo:	**1163811**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0059	0.00020	0.005000	.00009952	116	75	125	1.18	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R37147**	RunNo: **37147**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1152031** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R37147**	RunNo: **37147**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1152032** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.7	0.50	5.000	0	94.6	90	110			
Bromide	2.4	0.10	2.500	0	96.0	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.8	90	110			
Sulfate	9.8	0.50	10.00	0	97.6	90	110			

Sample ID **1609507-002EMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **MKTF-25**	Batch ID: **R37147**	RunNo: **37147**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1152050** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0.07290	84.4	74.5	121			
Bromide	2.6	0.10	2.500	0.8934	69.5	74.6	115			S

Sample ID **1609507-002EMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **MKTF-25**	Batch ID: **R37147**	RunNo: **37147**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1152051** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0.07290	84.7	74.5	121	0.303	20	
Bromide	2.6	0.10	2.500	0.8934	69.8	74.6	115	0.330	20	S

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A37294**	RunNo: **37294**
Prep Date:	Analysis Date: **9/17/2016**	SeqNo: **1157982** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A37294**	RunNo: **37294**
Prep Date:	Analysis Date: **9/17/2016**	SeqNo: **1157983** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	101	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A37469**	RunNo: **37469**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1165133** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A37469**	RunNo: **37469**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1165134** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.8	90	110			
Sulfate	9.7	0.50	10.00	0	96.7	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R37561**	RunNo: **37561**
Prep Date:	Analysis Date: **9/28/2016**	SeqNo: **1168729** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R37561**	RunNo: **37561**
Prep Date:	Analysis Date: **9/28/2016**	SeqNo: **1168730** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	98.6	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R37589**	RunNo: **37589**
Prep Date:	Analysis Date: **9/29/2016**	SeqNo: **1169949** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	0.082	0.50								J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **LCSb**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R37589**	RunNo: **37589**
Prep Date:	Analysis Date: **9/29/2016**	SeqNo: **1169952** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	91.4	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **MB-27623**	SampType: **MBLK**	TestCode: **EPA Method 8011/504.1: EDB**
Client ID: **PBW**	Batch ID: **27623**	RunNo: **37388**
Prep Date: **9/21/2016**	Analysis Date: **9/21/2016**	SeqNo: **1162067** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID **LCS-27623**	SampType: **LCS**	TestCode: **EPA Method 8011/504.1: EDB**
Client ID: **LCSW**	Batch ID: **27623**	RunNo: **37388**
Prep Date: **9/21/2016**	Analysis Date: **9/21/2016**	SeqNo: **1162073** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.11	0.010	0.1000	0	114	70	130			

Sample ID **LCSD-27623**	SampType: **LCSD**	TestCode: **EPA Method 8011/504.1: EDB**
Client ID: **LCSS02**	Batch ID: **27623**	RunNo: **37388**
Prep Date: **9/21/2016**	Analysis Date: **9/21/2016**	SeqNo: **1162075** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.12	0.010	0.1000	0	119	70	130	4.13	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **LCS-27435**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **27435**	RunNo: **37115**
Prep Date: **9/12/2016**	Analysis Date: **9/12/2016**	SeqNo: **1151345** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.6	1.0	5.000	0	111	63.2	155			
Surr: DNOP	0.59		0.5000		119	77.1	144			

Sample ID **MB-27435**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **27435**	RunNo: **37115**
Prep Date: **9/12/2016**	Analysis Date: **9/12/2016**	SeqNo: **1151346** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.3		1.000		127	77.1	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152880** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.1	70	130			
Toluene	18	1.0	20.00	0	92.2	70	130			
Chlorobenzene	17	1.0	20.00	0	86.5	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.1	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.0	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		99.9	70	130			
Surr: Toluene-d8	9.6		10.00		95.5	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152881** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	0.10								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	0.10								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	0.10								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	0.10								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152881** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	0.51	0.10								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152881** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.7	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.8		10.00		97.6	70	130			

Sample ID **1609507-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-44**	Batch ID: **R37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152896** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.6	70	130			
Toluene	18	1.0	20.00	0	91.1	70	130			
Chlorobenzene	18	1.0	20.00	0	87.8	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	95.7	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	91.7	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	9.5		10.00		95.1	70	130			

Sample ID **1609507-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-44**	Batch ID: **R37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152897** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.8	70	130	1.85	20	
Toluene	17	1.0	20.00	0	85.8	70	130	6.01	20	
Chlorobenzene	17	1.0	20.00	0	84.3	70	130	4.02	20	
1,1-Dichloroethene	19	1.0	20.00	0	93.7	70	130	2.11	20	
Trichloroethene (TCE)	17	1.0	20.00	0	87.2	70	130	4.98	20	
Surr: 1,2-Dichloroethane-d4	11		10.00		108	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130	0	0	
Surr: Dibromofluoromethane	10		10.00		103	70	130	0	0	
Surr: Toluene-d8	9.5		10.00		94.9	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **mb-27489**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **27489**	RunNo: **37269**
Prep Date: **9/14/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157087** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	6.6	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	5.6	10								J
Diethyl phthalate	ND	10								
Dimethyl phthalate	3.0	10								J
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	7.9	20								J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **mb-27489**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **27489**	RunNo: **37269**
Prep Date: **9/14/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157087** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	2.9	10								J
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	2.5	10								J
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	96		200.0		48.1	15	123			
Surr: Phenol-d5	82		200.0		40.8	4.13	124			
Surr: 2,4,6-Tribromophenol	140		200.0		69.0	18.4	134			
Surr: Nitrobenzene-d5	65		100.0		64.9	28.8	134			
Surr: 2-Fluorobiphenyl	57		100.0		57.0	35.9	125			
Surr: 4-Terphenyl-d14	58		100.0		58.2	15	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **lcs-27489**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **27489**	RunNo: **37269**
Prep Date: **9/14/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157090** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	72	10	100.0	0	71.6	35	113			
4-Chloro-3-methylphenol	140	10	200.0	0	71.2	40.7	114			
2-Chlorophenol	140	10	200.0	0	70.9	37.6	113			
1,4-Dichlorobenzene	56	10	100.0	0	56.2	37.7	106			
2,4-Dinitrotoluene	67	10	100.0	0	67.2	37	91			
N-Nitrosodi-n-propylamine	73	10	100.0	0	72.5	45.4	105			
4-Nitrophenol	110	10	200.0	0	52.9	33.4	104			
Pentachlorophenol	120	20	200.0	0	58.0	29.5	94.9			
Phenol	110	10	200.0	0	57.3	30.6	119			
Pyrene	62	10	100.0	0	62.4	26.2	120			
1,2,4-Trichlorobenzene	62	10	100.0	0	62.2	39.9	125			
Surr: 2-Fluorophenol	120		200.0		60.1	15	123			
Surr: Phenol-d5	130		200.0		63.9	4.13	124			
Surr: 2,4,6-Tribromophenol	150		200.0		74.4	18.4	134			
Surr: Nitrobenzene-d5	70		100.0		69.6	28.8	134			
Surr: 2-Fluorobiphenyl	67		100.0		67.2	35.9	125			
Surr: 4-Terphenyl-d14	48		100.0		48.4	15	146			

Sample ID **1609507-002dms**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **MKTF-25**	Batch ID: **27489**	RunNo: **37269**
Prep Date: **9/14/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157094** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	48	10	100.0	0	47.7	27.6	123			
4-Chloro-3-methylphenol	57	10	200.0	0	28.5	29.3	126			S
2-Chlorophenol	63	10	200.0	0	31.4	15	133			
1,4-Dichlorobenzene	34	10	100.0	0	34.0	17.6	127			
2,4-Dinitrotoluene	54	10	100.0	0	54.1	38.9	98.5			
N-Nitrosodi-n-propylamine	57	10	100.0	0	57.1	25.9	131			
4-Nitrophenol	40	10	200.0	0	20.0	15	102			
Pentachlorophenol	74	20	200.0	0	37.1	15	120			
Phenol	34	10	200.0	11.68	11.2	15	100			S
Pyrene	47	10	100.0	0	47.1	22.8	126			
1,2,4-Trichlorobenzene	39	10	100.0	0	38.6	15	143			
Surr: 2-Fluorophenol	35		200.0		17.4	15	123			
Surr: Phenol-d5	28		200.0		13.8	4.13	124			
Surr: 2,4,6-Tribromophenol	86		200.0		43.1	18.4	134			
Surr: Nitrobenzene-d5	52		100.0		52.5	28.8	134			
Surr: 2-Fluorobiphenyl	41		100.0		41.2	35.9	125			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **1609507-002dms**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **MKTF-25**	Batch ID: **27489**	RunNo: **37269**
Prep Date: **9/14/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157094** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	33		100.0		33.1	15	146			

Sample ID **1609507-002DMSD**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **MKTF-25**	Batch ID: **27489**	RunNo: **37269**
Prep Date: **9/14/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157095** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	46	10	100.0	0	46.5	27.6	123	2.67	31.3	
4-Chloro-3-methylphenol	55	10	200.0	0	27.3	29.3	126	4.19	29	S
2-Chlorophenol	56	10	200.0	0	27.8	15	133	12.0	28.4	
1,4-Dichlorobenzene	29	10	100.0	0	29.2	17.6	127	15.2	28.2	
2,4-Dinitrotoluene	51	10	100.0	0	51.4	38.9	98.5	5.12	22.9	
N-Nitrosodi-n-propylamine	49	10	100.0	0	48.8	25.9	131	15.7	28.8	
4-Nitrophenol	43	10	200.0	0	21.3	15	102	6.54	41.5	
Pentachlorophenol	66	20	200.0	0	33.1	15	120	11.5	45.1	
Phenol	42	10	200.0	11.68	15.3	15	100	21.6	33.9	
Pyrene	46	10	100.0	0	46.4	22.8	126	1.41	33.6	
1,2,4-Trichlorobenzene	34	10	100.0	0	34.4	15	143	11.4	28.2	
Surr: 2-Fluorophenol	36		200.0		17.9	15	123	0	0	
Surr: Phenol-d5	34		200.0		17.2	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	75		200.0		37.6	18.4	134	0	0	
Surr: Nitrobenzene-d5	48		100.0		47.7	28.8	134	0	0	
Surr: 2-Fluorobiphenyl	41		100.0		41.1	35.9	125	0	0	
Surr: 4-Terphenyl-d14	51		100.0		50.8	15	146	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152730** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.52	0.050	0.5000	0	103	75.4	118			
Surr: BFB	10		10.00		100	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152731** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	10		10.00		99.8	70	130			

Sample ID **1609507-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-44**	Batch ID: **G37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152733** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0.02320	95.1	53.8	128			
Surr: BFB	9.8		10.00		98.2	70	130			

Sample ID **1609507-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-44**	Batch ID: **G37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152734** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0.02320	91.3	53.8	128	3.88	20	
Surr: BFB	10		10.00		99.7	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1609507 RcptNo: 1

Received by/date: KM 09/10/16

Logged By: Ashley Gallegos 9/10/2016 9:00:00 AM

Completed By: Ashley Gallegos 9/12/2016 11:14:11 AM

Reviewed By: AG | aJ

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 24 (<2 or >12 unless noted)

Adjusted? NO

Checked by: aJ

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard ☒ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☑ Yes ☐ No
Sample Temperature: 3.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609507	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8011 (1,2-DIBROMOMETHANE)	MAJOR CATIONS ANIONS	WQCC METALS (TOTAL & DISSOLVED)	Air Bubbles (Y or N)
9/16	0835	WATER	MKTF-44	40 ML VOA-6	HCL	-001			✓							✓					
				1 L AMBER-1	NEAT												✓				
				250 ML AMBER-1	NEAT				✓												
				500 ML PLASTIC-1	HNO_3															✓	
				125 ML PLASTIC-1	HNO_3														✓	✓	
				125 ML PLASTIC-1	H_2SO_4														✓		
				500 ML PLASTIC-1	NEAT															✓	
	0930		MKTF-25	40 ML VOA-6	HCL	-002			✓							✓					
				40 ML VOA-3	HCL													✓			
				1 L AMBER-2	NEAT												✓				
				250 ML AMBER-1	NEAT				✓												
				500 ML PLASTIC-1	HNO_3															✓	

Date: 9/16 Time: 0900 Relinquished by:
Date: Time: Relinquished by:

Received by: Date Time: 09/10/16 0900
Received by: Date Time:

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package:
☐ Standard ☒ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☑ Yes ☐ No
Sample Temperature: 3.0

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4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609507
9/16	0930	WATER	MKTF-25	125 ML PLASTIC-1	HNO_3	-002
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	
	1045	WATER	MKTF-43	40 ML VOA-6	HCL	-003
				1 L AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				500 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	
	1215	WATER	MKTF-42	40 ML VOA-6	HCL	-004
				1 L AMBER-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS (TOTAL & DISSOLVED)		Air Bubbles (Y or N)
											✓	✓		
											✓			
												✓		
		✓							✓					
										✓				
		✓												
												✓		
											✓	✓		
											✓			
												✓		
		✓							✓					
										✓				

Date: 9/16 Time: 0900 Relinquished by:
Date: Time: Relinquished by:

Received by: Date: 09/10/16 Time: 0900
Received by: Date: Time:

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 3.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609507
9/16	1215	WATER	MKTF-42	250 ML AMBER-1	NEAT	-004
				500 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	
	1320	WATER	MKTF-32	40 ML VOA-6	HCL	-005
				40 ML VOA-3	HCL	
				1 L AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				500 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	

Analysis Request	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8011 (1,2-EDB/DIBROMOETHANE)	MAJOR CATIONS/ANIONS	WQCC METALS (TOTAL & DISSOLVED)	Air Bubbles (Y or N)
250 ML AMBER-1			✓												
500 ML PLASTIC-1														✓	
125 ML PLASTIC-1													✓	✓	
125 ML PLASTIC-1													✓		
500 ML PLASTIC-1														✓	
40 ML VOA-6			✓							✓					
40 ML VOA-3												✓			
1 L AMBER-1											✓				
250 ML AMBER-1			✓												
500 ML PLASTIC-1														✓	
125 ML PLASTIC-1													✓	✓	
125 ML PLASTIC-1													✓		

Date: 9/9/16 Time: 0900 Relinquished by:
Date: Time: Relinquished by:

Received by: Date: 09/10/16 Time: 0900
Received by: Date: Time:

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard ☒ Level 4 (Full Validation)
Accreditation: NELAP ☐ Other
EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☐ Yes ☐ No
Sample Temperature: 3.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609507	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8011 (1,2-DIBROMOMETHANE)	MAJOR CATIONS / ANIONS	WQCC METALS	(TOTAL & DISSOLVED)	Air Bubbles (Y or N)
9/16	1320	WATER	MKTF-32	500ML PLASTIC-1	NEAT	-005														✓		
	1420	WATER	FB090916	40ML VOA-6	HCL	-006			✓							✓						
				1L AMBER-1	NEAT												✓					
				250ML AMBER-1	NEAT				✓										9.9.16 TP	✓	TP 9.9.16	
				500ML PLASTIC-1	HNO_3															✓		
				125ML PLASTIC-1	HNO_3															✓		
				125ML PLASTIC-1	H_2SO_4															✓		
				500ML PLASTIC-1	NEAT															✓		
	1500	WATER	MKTF-41	40ML VOA-6	HCL	-007			✓							✓						
				40ML VOA-3	HCL													✓				
				1L AMBER-1	NEAT												✓					
				250ML AMBER-1	NEAT				✓													

Date: 9/9/16 Time: 0900 Relinquished by:
Date: Time: Relinquished by:

Received by: Date 09/10/16 Time 0900
Received by: Date Time

Remarks:

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mail or Fax#: CHERYL.JOHNSON@WNR.COM
A/QC Package:
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Turn-Around Time:
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Project Name: 2016 3RD QTR (MKTF)
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Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609507
9/16	1500	WATER	MKTF-41	500 ML PLASTIC-1	HNO_3	-007
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	
	—	WATER	DUP03	40 ML VOA-6	HCL	-008
				1 L AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				500 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500ML PLASTIC	NEAT	
9/16	—	WATER	TRIP BLANK	40 ML VOA-6	HCL	-009

Analysis Request																
BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
												✓			
											✓	✓			
											✓				
												✓			
		✓							✓						
										✓					
		✓													
												✓			
											✓	✓			
											✓				
												✓			
									✓						

Date: 9/10/16 Time: 0900 Relinquished by:
Date: Time: Relinquished by:
Received by:
Received by: 09/10/16 0900 (Date Time)

Remarks:

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Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 25, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 3RD QTR (MKTF) OrderNo.: 1609507

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 9 sample(s) on 9/10/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 8:35:00 AM
Lab ID: 1609507-001 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/12/2016 10:27:27 PM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 10:27:27 PM	27435
Surr: DNOP	145	0	77.1-144	S	%Rec	1	9/12/2016 10:27:27 PM	27435
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.36	0.25	0.50	J	mg/L	5	9/12/2016 9:40:52 PM	R37147
Chloride	310	1.0	10		mg/L	20	9/12/2016 9:53:17 PM	R37147
Bromide	0.51	0.22	0.50		mg/L	5	9/12/2016 9:40:52 PM	R37147
Phosphorus, Orthophosphate (As P)	1.7	0.38	2.5	JH	mg/L	5	9/12/2016 9:40:52 PM	R37147
Sulfate	97	0.71	2.5		mg/L	5	9/12/2016 9:40:52 PM	R37147
Nitrate+Nitrite as N	1.8	0.46	1.0		mg/L	5	9/17/2016 10:52:19 PM	A37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.058	0.0013	0.0020		mg/L	1	9/29/2016 2:43:37 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 2:43:37 PM	E37552
Calcium	11	0.50	1.0		mg/L	1	9/29/2016 2:43:37 PM	E37552
Chromium	0.0077	0.0018	0.0060		mg/L	1	9/29/2016 2:43:37 PM	E37552
Copper	0.0041	0.0040	0.0060	J	mg/L	1	9/29/2016 2:43:37 PM	E37552
Iron	0.97	0.020	0.020	*	mg/L	1	9/29/2016 2:43:37 PM	E37552
Magnesium	0.68	0.50	1.0	J	mg/L	1	9/29/2016 2:43:37 PM	E37552
Manganese	0.042	0.00032	0.0020		mg/L	1	9/29/2016 2:43:37 PM	E37552
Potassium	1.5	0.50	1.0		mg/L	1	9/29/2016 2:43:37 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 2:43:37 PM	E37552
Sodium	530	5.0	10		mg/L	10	9/29/2016 2:45:36 PM	E37552
Zinc	0.0078	0.0028	0.010	J	mg/L	1	9/29/2016 2:43:37 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.26	0.00079	0.0020		mg/L	1	10/3/2016 6:34:30 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 6:34:30 PM	27613
Chromium	0.031	0.0027	0.0060		mg/L	1	10/3/2016 6:34:30 PM	27613
Copper	0.019	0.0030	0.0060		mg/L	1	10/3/2016 6:34:30 PM	27613
Iron	33	1.0	1.0	*	mg/L	50	10/4/2016 3:50:05 PM	27613
Manganese	0.53	0.00027	0.0020	*	mg/L	1	10/3/2016 6:34:30 PM	27613
Silver	ND	0.0077	0.025		mg/L	5	10/5/2016 1:18:27 PM	27613
Zinc	0.089	0.0027	0.010		mg/L	1	10/3/2016 6:34:30 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0088	0.00014	0.0010		mg/L	1	9/21/2016 10:25:34 PM	B37386
Lead	0.0050	0.00017	0.00050		mg/L	1	9/21/2016 10:25:34 PM	B37386
Selenium	0.015	0.00021	0.0010		mg/L	1	9/21/2016 10:25:34 PM	B37386
Uranium	0.17	0.00051	0.0050	*	mg/L	10	9/22/2016 9:00:52 PM	B37425

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 8:35:00 AM
Lab ID: 1609507-001
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0086	0.00021	0.0010		mg/L	1	9/21/2016 6:04:19 PM	27613
Lead	0.031	0.00041	0.0025	*	mg/L	5	9/22/2016 3:10:44 PM	27613
Selenium	0.014	0.00094	0.0050		mg/L	5	9/22/2016 3:10:44 PM	27613
Uranium	0.17	0.0035	0.010	*	mg/L	20	9/22/2016 3:13:45 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00010	0.000053	0.00020	J	mg/L	1	9/23/2016 11:00:34 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Benzoic acid	6.5	2.6	20	J	µg/L	1	9/16/2016 7:34:03 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Bis(2-ethylhexyl)phthalate	3.5	2.6	10	J	µg/L	1	9/16/2016 7:34:03 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/16/2016 7:34:03 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Di-n-octyl phthalate	ND	2.0	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Dibenzofuran	ND	2.5	10		µg/L	1	9/16/2016 7:34:03 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489

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Collection Date: 9/9/2016 8:35:00 AM
Lab ID: 1609507-001 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/16/2016 7:34:03 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/16/2016 7:34:03 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/16/2016 7:34:03 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/16/2016 7:34:03 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/16/2016 7:34:03 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/16/2016 7:34:03 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/16/2016 7:34:03 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/16/2016 7:34:03 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/16/2016 7:34:03 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/16/2016 7:34:03 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Phenol	ND	2.0	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Pyridine	ND	2.2	10		µg/L	1	9/16/2016 7:34:03 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/16/2016 7:34:03 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/16/2016 7:34:03 PM	27489

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CLIENT: Western Refining Southwest, Gallup
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Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 8:35:00 AM
Lab ID: 1609507-001 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/16/2016 7:34:03 PM	27489
Surr: 2-Fluorophenol	22.4	0	15-123		%Rec	1	9/16/2016 7:34:03 PM	27489
Surr: Phenol-d5	25.1	0	15-124		%Rec	1	9/16/2016 7:34:03 PM	27489
Surr: 2,4,6-Tribromophenol	40.9	0	18.4-134		%Rec	1	9/16/2016 7:34:03 PM	27489
Surr: Nitrobenzene-d5	64.1	0	28.8-134		%Rec	1	9/16/2016 7:34:03 PM	27489
Surr: 2-Fluorobiphenyl	54.6	0	35.9-125		%Rec	1	9/16/2016 7:34:03 PM	27489
Surr: 4-Terphenyl-d14	24.6	0	15-146		%Rec	1	9/16/2016 7:34:03 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Acetone	ND	4.9	10		µg/L	1	9/13/2016 11:49:48 AM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 11:49:48 AM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 11:49:48 AM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 8:35:00 AM
Lab ID: 1609507-001 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 11:49:48 AM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 11:49:48 AM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 11:49:48 AM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 11:49:48 AM	R37165
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	1	9/13/2016 11:49:48 AM	R37165
Surr: 4-Bromofluorobenzene	104	0	70-130		%Rec	1	9/13/2016 11:49:48 AM	R37165
Surr: Dibromofluoromethane	102	0	70-130		%Rec	1	9/13/2016 11:49:48 AM	R37165
Surr: Toluene-d8	96.8	0	70-130		%Rec	1	9/13/2016 11:49:48 AM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 8:35:00 AM
Lab ID: 1609507-001 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.023	0.015	0.050	J	mg/L	1	9/13/2016 11:49:48 AM	G37165
Surr: BFB	100	0	70-130		%Rec	1	9/13/2016 11:49:48 AM	G37165

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 9:30:00 AM
Lab ID: 1609507-002
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	9/21/2016 7:17:42 PM	27623
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	0.94	0.69	1.0	J	mg/L	1	9/13/2016 7:46:38 PM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 7:46:38 PM	27435
Surr: DNOP	126	0	77.1-144		%Rec	1	9/13/2016 7:46:38 PM	27435
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.073	0.050	0.10	J	mg/L	1	9/12/2016 10:05:41 PM	R37147
Chloride	560	2.5	25		mg/L	50	9/29/2016 4:57:44 PM	R37589
Bromide	0.89	0.044	0.10		mg/L	1	9/12/2016 10:05:41 PM	R37147
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/12/2016 10:05:41 PM	R37147
Sulfate	34	0.14	0.50		mg/L	1	9/12/2016 10:05:41 PM	R37147
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 11:04:43 PM	A37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.31	0.0013	0.0020		mg/L	1	9/29/2016 2:47:22 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 2:47:22 PM	E37552
Calcium	100	5.0	10		mg/L	10	9/29/2016 2:49:24 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 2:47:22 PM	E37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 2:47:22 PM	E37552
Iron	0.11	0.020	0.020		mg/L	1	9/29/2016 2:47:22 PM	E37552
Magnesium	20	0.50	1.0		mg/L	1	9/29/2016 2:47:22 PM	E37552
Manganese	2.7	0.0032	0.020	*	mg/L	10	9/29/2016 2:49:24 PM	E37552
Potassium	1.2	0.50	1.0		mg/L	1	9/29/2016 2:47:22 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 2:47:22 PM	E37552
Sodium	570	5.0	10		mg/L	10	9/29/2016 2:49:24 PM	E37552
Zinc	0.0089	0.0028	0.010	J	mg/L	1	9/29/2016 2:47:22 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.45	0.00079	0.0020		mg/L	1	10/3/2016 6:53:43 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 6:53:43 PM	27613
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 6:53:43 PM	27613
Copper	0.0060	0.0030	0.0060	J	mg/L	1	10/3/2016 6:53:43 PM	27613
Iron	4.3	0.10	0.10	*	mg/L	5	10/5/2016 1:31:33 PM	27613
Manganese	3.4	0.0014	0.010	*	mg/L	5	10/3/2016 6:59:15 PM	27613
Silver	ND	0.0015	0.0050		mg/L	1	10/13/2016 1:15:04 PM	28020
Zinc	0.012	0.0027	0.010		mg/L	1	10/3/2016 6:53:43 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0058	0.00014	0.0010		mg/L	1	9/21/2016 10:28:37 PM	B37386
Lead	0.0066	0.00017	0.00050		mg/L	1	9/21/2016 10:28:37 PM	B37386

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 9:30:00 AM
Lab ID: 1609507-002 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Selenium	0.0074	0.00021	0.0010		mg/L	1	9/21/2016 10:28:37 PM	B37386
Uranium	0.032	0.00026	0.0025	*	mg/L	5	9/23/2016 11:23:41 AM	A37462
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0044	0.00021	0.0010		mg/L	1	9/21/2016 6:13:24 PM	27613
Lead	0.0063	0.000081	0.00050		mg/L	1	9/21/2016 6:13:24 PM	27613
Selenium	0.0059	0.0019	0.010	J	mg/L	10	9/22/2016 3:19:46 PM	27613
Uranium	0.027	0.00087	0.0025		mg/L	5	9/22/2016 3:16:45 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000054	0.000053	0.00020	J	mg/L	1	9/23/2016 11:06:39 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Benzoic acid	9.9	2.6	20	J	µg/L	1	9/16/2016 8:01:34 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Bis(2-ethylhexyl)phthalate	3.8	2.6	10	J	µg/L	1	9/16/2016 8:01:34 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/16/2016 8:01:34 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Di-n-octyl phthalate	3.8	2.0	10	J	µg/L	1	9/16/2016 8:01:34 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 9:30:00 AM
Lab ID: 1609507-002
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenzofuran	ND	2.5	10		µg/L	1	9/16/2016 8:01:34 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Dimethyl phthalate	3.1	2.4	10	J	µg/L	1	9/16/2016 8:01:34 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/16/2016 8:01:34 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/16/2016 8:01:34 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/16/2016 8:01:34 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/16/2016 8:01:34 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
1-Methylnaphthalene	4.1	2.9	10	J	µg/L	1	9/16/2016 8:01:34 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/16/2016 8:01:34 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/16/2016 8:01:34 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/16/2016 8:01:34 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/16/2016 8:01:34 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/16/2016 8:01:34 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Phenol	12	2.0	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/16/2016 8:01:34 PM	27489

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 9:30:00 AM
Lab ID: 1609507-002 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyridine	ND	2.2	10		µg/L	1	9/16/2016 8:01:34 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/16/2016 8:01:34 PM	27489
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/16/2016 8:01:34 PM	27489
Surr: 2-Fluorophenol	22.1	0	15-123		%Rec	1	9/16/2016 8:01:34 PM	27489
Surr: Phenol-d5	19.5	0	15-124		%Rec	1	9/16/2016 8:01:34 PM	27489
Surr: 2,4,6-Tribromophenol	43.3	0	18.4-134		%Rec	1	9/16/2016 8:01:34 PM	27489
Surr: Nitrobenzene-d5	59.3	0	28.8-134		%Rec	1	9/16/2016 8:01:34 PM	27489
Surr: 2-Fluorobiphenyl	53.7	0	35.9-125		%Rec	1	9/16/2016 8:01:34 PM	27489
Surr: 4-Terphenyl-d14	26.7	0	15-146		%Rec	1	9/16/2016 8:01:34 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	920	0.96	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Toluene	5.0	1.2	10	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
Ethylbenzene	18	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Methyl tert-butyl ether (MTBE)	150	2.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2,4-Trimethylbenzene	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,3,5-Trimethylbenzene	ND	1.2	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2-Dichloroethane (EDC)	7.9	1.2	10	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Naphthalene	ND	0.93	20		µg/L	10	9/13/2016 2:42:49 PM	R37165
1-Methylnaphthalene	ND	2.0	40		µg/L	10	9/13/2016 2:42:49 PM	R37165
2-Methylnaphthalene	ND	1.6	40		µg/L	10	9/13/2016 2:42:49 PM	R37165
Acetone	ND	49	100		µg/L	10	9/13/2016 2:42:49 PM	R37165
Bromobenzene	ND	0.98	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Bromodichloromethane	ND	1.4	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Bromoform	ND	1.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Bromomethane	ND	7.8	30		µg/L	10	9/13/2016 2:42:49 PM	R37165
2-Butanone	ND	7.4	100		µg/L	10	9/13/2016 2:42:49 PM	R37165
Carbon disulfide	ND	6.0	100		µg/L	10	9/13/2016 2:42:49 PM	R37165
Carbon Tetrachloride	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Chlorobenzene	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Chloroethane	ND	1.9	20		µg/L	10	9/13/2016 2:42:49 PM	R37165
Chloroform	ND	0.89	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Chloromethane	ND	2.1	30		µg/L	10	9/13/2016 2:42:49 PM	R37165
2-Chlorotoluene	ND	4.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
4-Chlorotoluene	ND	1.3	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
cis-1,2-DCE	40	1.2	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	9/13/2016 2:42:49 PM	R37165

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 9:30:00 AM
Lab ID: 1609507-002 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Dibromochloromethane	ND	0.87	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Dibromomethane	ND	1.2	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1-Dichloroethane	180	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1-Dichloroethene	55	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2-Dichloropropane	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,3-Dichloropropane	ND	1.6	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
2,2-Dichloropropane	ND	1.7	20		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1-Dichloropropene	ND	1.3	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Hexachlorobutadiene	ND	2.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
2-Hexanone	ND	8.4	100		µg/L	10	9/13/2016 2:42:49 PM	R37165
Isopropylbenzene	25	1.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
4-Isopropyltoluene	ND	1.4	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	9/13/2016 2:42:49 PM	R37165
Methylene Chloride	ND	1.9	30		µg/L	10	9/13/2016 2:42:49 PM	R37165
n-Butylbenzene	9.0	1.6	30	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
n-Propylbenzene	32	1.3	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
sec-Butylbenzene	5.9	1.2	10	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
Styrene	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
tert-Butylbenzene	ND	1.2	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	9/13/2016 2:42:49 PM	R37165
Tetrachloroethene (PCE)	2.1	1.5	10	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
trans-1,2-DCE	ND	4.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1,1-Trichloroethane	5.9	0.91	10	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Trichloroethene (TCE)	11	1.8	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
Trichlorofluoromethane	ND	2.0	10		µg/L	10	9/13/2016 2:42:49 PM	R37165
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	9/13/2016 2:42:49 PM	R37165
Vinyl chloride	5.9	2.0	10	J	µg/L	10	9/13/2016 2:42:49 PM	R37165
Xylenes, Total	ND	3.7	15		µg/L	10	9/13/2016 2:42:49 PM	R37165
Surr: 1,2-Dichloroethane-d4	95.8	0	70-130		%Rec	10	9/13/2016 2:42:49 PM	R37165
Surr: 4-Bromofluorobenzene	95.1	0	70-130		%Rec	10	9/13/2016 2:42:49 PM	R37165

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 9:30:00 AM
Lab ID: 1609507-002
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: Dibromofluoromethane	94.6	0	70-130		%Rec	10	9/13/2016 2:42:49 PM	R37165
Surr: Toluene-d8	96.2	0	70-130		%Rec	10	9/13/2016 2:42:49 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	7.1	0.15	0.50		mg/L	10	9/13/2016 2:42:49 PM	G37165
Surr: BFB	99.7	0	70-130		%Rec	10	9/13/2016 2:42:49 PM	G37165

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 10:45:00 AM
Lab ID: 1609507-003 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/12/2016 11:11:24 PM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/12/2016 11:11:24 PM	27435
Surr: DNOP	149	0	77.1-144	S	%Rec	1	9/12/2016 11:11:24 PM	27435
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	1.0	2.0		mg/L	20	9/12/2016 11:32:33 PM	R37147
Chloride	16000	100	1000		mg/L	2000	9/24/2016 2:10:09 AM	A37469
Bromide	13	0.87	2.0		mg/L	20	9/12/2016 11:32:33 PM	R37147
Phosphorus, Orthophosphate (As P)	6.6	1.5	10	J	mg/L	20	9/12/2016 11:32:33 PM	R37147
Sulfate	1800	7.1	25		mg/L	50	9/24/2016 1:32:53 AM	A37469
Nitrate+Nitrite as N	ND	4.6	10		mg/L	50	9/28/2016 3:45:25 PM	R37561
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.086	0.0013	0.0020		mg/L	1	9/29/2016 2:51:14 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 2:51:14 PM	E37552
Calcium	2900	50	100		mg/L	100	9/29/2016 2:57:17 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 2:51:14 PM	E37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 2:51:14 PM	E37552
Iron	0.073	0.020	0.020		mg/L	1	9/29/2016 2:51:14 PM	E37552
Magnesium	460	2.5	5.0		mg/L	5	9/29/2016 2:53:25 PM	E37552
Manganese	23	0.032	0.20	*	mg/L	100	9/29/2016 2:57:17 PM	E37552
Potassium	9.5	0.50	1.0		mg/L	1	9/29/2016 2:51:14 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 2:51:14 PM	E37552
Sodium	6500	50	100		mg/L	100	9/29/2016 2:57:17 PM	E37552
Zinc	0.013	0.0028	0.010		mg/L	1	9/29/2016 2:51:14 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.17	0.0040	0.010		mg/L	5	10/3/2016 7:07:19 PM	27613
Cadmium	ND	0.0074	0.010		mg/L	5	10/3/2016 7:07:19 PM	27613
Chromium	ND	0.013	0.030		mg/L	5	10/3/2016 7:07:19 PM	27613
Copper	ND	0.015	0.030		mg/L	5	10/3/2016 7:07:19 PM	27613
Iron	3.6	0.10	0.10	*	mg/L	5	10/3/2016 7:07:19 PM	27613
Manganese	21	0.014	0.10	*	mg/L	50	10/5/2016 1:44:36 PM	27613
Silver	ND	0.0077	0.025		mg/L	5	10/3/2016 7:07:19 PM	27613
Zinc	0.032	0.013	0.050	J	mg/L	5	10/3/2016 7:07:19 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.018	0.0069	0.050	J*	mg/L	50	9/22/2016 9:31:46 PM	B37425
Lead	ND	0.0017	0.0050		mg/L	10	9/22/2016 9:26:38 PM	B37425
Selenium	0.067	0.011	0.050	*	mg/L	50	9/22/2016 9:31:46 PM	B37425
Uranium	0.25	0.0010	0.010	*	mg/L	20	9/23/2016 11:26:44 AM	A37462

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 10:45:00 AM
Lab ID: 1609507-003
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.022	0.011	0.050	J*	mg/L	50	9/22/2016 3:34:53 PM	27613
Lead	0.0041	0.00041	0.0025		mg/L	5	9/22/2016 3:28:52 PM	27613
Selenium	0.065	0.019	0.10	J*	mg/L	100	9/22/2016 3:46:56 PM	27613
Uranium	0.21	0.0087	0.025	*	mg/L	50	9/22/2016 3:34:53 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:08:42 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Benzoic acid	17	2.6	20	J	µg/L	1	9/17/2016 11:24:17 AM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Bis(2-ethylhexyl)phthalate	4.1	2.6	10	J	µg/L	1	9/17/2016 11:24:17 AM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 11:24:17 AM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Di-n-octyl phthalate	3.4	2.0	10	J	µg/L	1	9/17/2016 11:24:17 AM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 11:24:17 AM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 10:45:00 AM
Lab ID: 1609507-003
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/17/2016 11:24:17 AM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 11:24:17 AM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 11:24:17 AM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 11:24:17 AM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 11:24:17 AM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 11:24:17 AM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 11:24:17 AM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 11:24:17 AM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 11:24:17 AM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 11:24:17 AM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 11:24:17 AM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 11:24:17 AM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 11:24:17 AM	27489

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 10:45:00 AM
Lab ID: 1609507-003 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 11:24:17 AM	27489
Surr: 2-Fluorophenol	19.7	0	15-123		%Rec	1	9/17/2016 11:24:17 AM	27489
Surr: Phenol-d5	12.4	0	15-124	S	%Rec	1	9/17/2016 11:24:17 AM	27489
Surr: 2,4,6-Tribromophenol	57.9	0	18.4-134		%Rec	1	9/17/2016 11:24:17 AM	27489
Surr: Nitrobenzene-d5	63.8	0	28.8-134		%Rec	1	9/17/2016 11:24:17 AM	27489
Surr: 2-Fluorobiphenyl	49.6	0	35.9-125		%Rec	1	9/17/2016 11:24:17 AM	27489
Surr: 4-Terphenyl-d14	64.7	0	15-146		%Rec	1	9/17/2016 11:24:17 AM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	0.14	0.096	1.0	J	µg/L	1	9/13/2016 3:11:36 PM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Acetone	ND	4.9	10		µg/L	1	9/13/2016 3:11:36 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 3:11:36 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 3:11:36 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 10:45:00 AM
Lab ID: 1609507-003 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 3:11:36 PM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 3:11:36 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 3:11:36 PM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 3:11:36 PM	R37165
Surr: 1,2-Dichloroethane-d4	106	0	70-130		%Rec	1	9/13/2016 3:11:36 PM	R37165
Surr: 4-Bromofluorobenzene	105	0	70-130		%Rec	1	9/13/2016 3:11:36 PM	R37165
Surr: Dibromofluoromethane	105	0	70-130		%Rec	1	9/13/2016 3:11:36 PM	R37165
Surr: Toluene-d8	95.8	0	70-130		%Rec	1	9/13/2016 3:11:36 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 10:45:00 AM
Lab ID: 1609507-003 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.026	0.015	0.050	J	mg/L	1	9/13/2016 3:11:36 PM	G37165
Surr: BFB	97.7	0	70-130		%Rec	1	9/13/2016 3:11:36 PM	G37165

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 12:15:00 PM
Lab ID: 1609507-004
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	62	6.9	10		mg/L	10	9/12/2016 11:33:09 PM	27435
Motor Oil Range Organics (MRO)	ND	50	50		mg/L	10	9/12/2016 11:33:09 PM	27435
Surr: DNOP	0	0	77.1-144	S	%Rec	10	9/12/2016 11:33:09 PM	27435
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.43	0.25	0.50	J	mg/L	5	9/12/2016 11:44:57 PM	R37147
Chloride	880	5.1	50		mg/L	100	9/24/2016 2:22:33 AM	A37469
Bromide	1.7	0.22	0.50		mg/L	5	9/12/2016 11:44:57 PM	R37147
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5	H	mg/L	5	9/12/2016 11:44:57 PM	R37147
Sulfate	110	0.71	2.5		mg/L	5	9/12/2016 11:44:57 PM	R37147
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 11:29:32 PM	A37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.078	0.0013	0.0020		mg/L	1	9/29/2016 2:59:11 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 2:59:11 PM	E37552
Calcium	20	0.50	1.0		mg/L	1	9/29/2016 2:59:11 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 2:59:11 PM	E37552
Copper	0.0052	0.0040	0.0060	J	mg/L	1	9/29/2016 2:59:11 PM	E37552
Iron	0.081	0.020	0.020		mg/L	1	9/29/2016 2:59:11 PM	E37552
Magnesium	2.6	0.50	1.0		mg/L	1	9/29/2016 2:59:11 PM	E37552
Manganese	0.29	0.00032	0.0020	*	mg/L	1	9/29/2016 2:59:11 PM	E37552
Potassium	1.5	0.50	1.0		mg/L	1	9/29/2016 2:59:11 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 2:59:11 PM	E37552
Sodium	690	5.0	10		mg/L	10	9/29/2016 3:01:12 PM	E37552
Zinc	0.0078	0.0028	0.010	J	mg/L	1	9/29/2016 2:59:11 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.11	0.00079	0.0020		mg/L	1	10/3/2016 7:09:21 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 7:09:21 PM	27613
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 7:09:21 PM	27613
Copper	0.0054	0.0030	0.0060	J	mg/L	1	10/3/2016 7:09:21 PM	27613
Iron	0.80	0.020	0.020	*	mg/L	1	10/3/2016 7:09:21 PM	27613
Manganese	0.32	0.00027	0.0020	*	mg/L	1	10/3/2016 7:09:21 PM	27613
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 7:09:21 PM	27613
Zinc	0.0074	0.0027	0.010	J	mg/L	1	10/3/2016 7:09:21 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0033	0.00069	0.0050	J	mg/L	5	9/22/2016 9:36:54 PM	B37425
Lead	0.00067	0.00017	0.00050		mg/L	1	9/21/2016 10:34:43 PM	B37386
Selenium	0.0095	0.0011	0.0050		mg/L	5	9/22/2016 9:36:54 PM	B37425
Uranium	0.019	0.000051	0.00050		mg/L	1	9/21/2016 10:34:43 PM	B37386

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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 12:15:00 PM
Lab ID: 1609507-004
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0042	0.0011	0.0050	J	mg/L	5	9/22/2016 3:37:53 PM	27613
Lead	0.0018	0.000081	0.00050		mg/L	1	9/21/2016 6:22:25 PM	27613
Selenium	0.011	0.0037	0.020	J	mg/L	20	9/22/2016 3:49:58 PM	27613
Uranium	0.017	0.00087	0.0025		mg/L	5	9/22/2016 3:37:53 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:10:47 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Acenaphthylene	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Aniline	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Anthracene	ND	25	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Azobenzene	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Benz(a)anthracene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Benzo(a)pyrene	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Benzo(b)fluoranthene	ND	29	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Benzo(g,h,i)perylene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Benzo(k)fluoranthene	ND	30	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Benzoic acid	72	26	200	JD	µg/L	10	9/17/2016 9:35:09 PM	27489
Benzyl alcohol	ND	30	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Bis(2-chloroethoxy)methane	ND	28	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Bis(2-chloroethyl)ether	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Bis(2-chloroisopropyl)ether	ND	19	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Bis(2-ethylhexyl)phthalate	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4-Bromophenyl phenyl ether	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Butyl benzyl phthalate	ND	25	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Carbazole	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4-Chloro-3-methylphenol	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4-Chloroaniline	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2-Chloronaphthalene	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2-Chlorophenol	ND	22	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4-Chlorophenyl phenyl ether	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Chrysene	ND	28	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Di-n-butyl phthalate	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Di-n-octyl phthalate	ND	20	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Dibenz(a,h)anthracene	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Dibenzofuran	ND	25	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
1,2-Dichlorobenzene	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
1,3-Dichlorobenzene	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 12:15:00 PM
Lab ID: 1609507-004 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
3,3´-Dichlorobenzidine	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Diethyl phthalate	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Dimethyl phthalate	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2,4-Dichlorophenol	ND	23	200	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2,4-Dimethylphenol	ND	30	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4,6-Dinitro-2-methylphenol	ND	18	200	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2,4-Dinitrophenol	ND	28	200	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2,4-Dinitrotoluene	ND	31	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2,6-Dinitrotoluene	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Fluoranthene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Fluorene	ND	27	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Hexachlorobenzene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Hexachlorobutadiene	ND	22	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Hexachlorocyclopentadiene	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Hexachloroethane	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Indeno(1,2,3-cd)pyrene	ND	30	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Isophorone	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
1-Methylnaphthalene	170	29	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2-Methylnaphthalene	ND	29	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2-Methylphenol	ND	25	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
3+4-Methylphenol	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
N-Nitrosodi-n-propylamine	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
N-Nitrosodimethylamine	ND	22	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
N-Nitrosodiphenylamine	ND	23	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Naphthalene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2-Nitroaniline	ND	28	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
3-Nitroaniline	ND	29	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4-Nitroaniline	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Nitrobenzene	ND	28	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2-Nitrophenol	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
4-Nitrophenol	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Pentachlorophenol	ND	23	200	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Phenanthrene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Phenol	ND	20	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Pyrene	ND	31	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Pyridine	ND	22	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
1,2,4-Trichlorobenzene	ND	26	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
2,4,5-Trichlorophenol	ND	22	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 12:15:00 PM
Lab ID: 1609507-004
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	24	100	D	µg/L	10	9/17/2016 9:35:09 PM	27489
Surr: 2-Fluorophenol	0	0	15-123	SD	%Rec	10	9/17/2016 9:35:09 PM	27489
Surr: Phenol-d5	0	0	15-124	SD	%Rec	10	9/17/2016 9:35:09 PM	27489
Surr: 2,4,6-Tribromophenol	0	0	18.4-134	SD	%Rec	10	9/17/2016 9:35:09 PM	27489
Surr: Nitrobenzene-d5	0	0	28.8-134	SD	%Rec	10	9/17/2016 9:35:09 PM	27489
Surr: 2-Fluorobiphenyl	0	0	35.9-125	SD	%Rec	10	9/17/2016 9:35:09 PM	27489
Surr: 4-Terphenyl-d14	0	0	15-146	SD	%Rec	10	9/17/2016 9:35:09 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	4.0	0.096	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Toluene	0.33	0.12	1.0	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
Ethylbenzene	1.8	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Methyl tert-butyl ether (MTBE)	0.56	0.21	1.0	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2,4-Trimethylbenzene	6.6	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,3,5-Trimethylbenzene	2.9	0.12	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2-Dichloroethane (EDC)	0.98	0.12	1.0	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Naphthalene	26	0.093	2.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1-Methylnaphthalene	13	0.20	4.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
2-Methylnaphthalene	8.3	0.16	4.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Acetone	31	4.9	10		µg/L	1	9/13/2016 3:40:25 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
2-Butanone	8.3	0.74	10	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 3:40:25 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 12:15:00 PM
Lab ID: 1609507-004 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
2-Hexanone	2.2	0.84	10	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
Isopropylbenzene	0.58	0.10	1.0	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
4-Isopropyltoluene	1.8	0.14	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
4-Methyl-2-pentanone	3.2	0.43	10	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
n-Propylbenzene	0.72	0.13	1.0	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
sec-Butylbenzene	0.41	0.12	1.0	J	µg/L	1	9/13/2016 3:40:25 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 3:40:25 PM	R37165
Xylenes, Total	25	0.37	1.5		µg/L	1	9/13/2016 3:40:25 PM	R37165
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	1	9/13/2016 3:40:25 PM	R37165
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	1	9/13/2016 3:40:25 PM	R37165
Surr: Dibromofluoromethane	102	0	70-130		%Rec	1	9/13/2016 3:40:25 PM	R37165
Surr: Toluene-d8	95.6	0	70-130		%Rec	1	9/13/2016 3:40:25 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 12:15:00 PM
Lab ID: 1609507-004 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.70	0.015	0.050		mg/L	1	9/13/2016 3:40:25 PM	G37165
Surr: BFB	144	0	70-130	S	%Rec	1	9/13/2016 3:40:25 PM	G37165

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 1:20:00 PM
Lab ID: 1609507-005
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	9/21/2016 7:32:51 PM	27623
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/13/2016 12:16:57 AM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 12:16:57 AM	27435
Surr: DNOP	162	0	77.1-144	S	%Rec	1	9/13/2016 12:16:57 AM	27435
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.18	0.050	0.10		mg/L	1	9/13/2016 12:09:47 AM	R37147
Chloride	460	2.5	25		mg/L	50	9/24/2016 2:34:58 AM	A37469
Bromide	1.2	0.044	0.10		mg/L	1	9/13/2016 12:09:47 AM	R37147
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/13/2016 12:09:47 AM	R37147
Sulfate	91	2.8	10		mg/L	20	9/13/2016 12:22:11 AM	R37147
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 11:41:57 PM	A37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.050	0.0013	0.0020		mg/L	1	9/29/2016 3:08:47 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 3:08:47 PM	E37552
Calcium	29	0.50	1.0		mg/L	1	9/29/2016 3:08:47 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 3:08:47 PM	E37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 3:08:47 PM	E37552
Iron	0.027	0.020	0.020		mg/L	1	9/29/2016 3:08:47 PM	E37552
Magnesium	5.9	0.50	1.0		mg/L	1	9/29/2016 3:08:47 PM	E37552
Manganese	0.074	0.00032	0.0020	*	mg/L	1	9/29/2016 3:08:47 PM	E37552
Potassium	0.64	0.50	1.0	J	mg/L	1	9/29/2016 3:08:47 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 3:08:47 PM	E37552
Sodium	630	5.0	10		mg/L	10	9/29/2016 3:10:49 PM	E37552
Zinc	0.0095	0.0028	0.010	J	mg/L	1	9/29/2016 3:08:47 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.086	0.00079	0.0020		mg/L	1	10/3/2016 7:21:22 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 7:21:22 PM	27613
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 7:21:22 PM	27613
Copper	0.013	0.0030	0.0060		mg/L	1	10/3/2016 7:21:22 PM	27613
Iron	1.8	0.10	0.10	*	mg/L	5	10/3/2016 7:23:17 PM	27613
Manganese	0.12	0.00027	0.0020	*	mg/L	1	10/3/2016 7:21:22 PM	27613
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 7:21:22 PM	27613
Zinc	0.016	0.0027	0.010		mg/L	1	10/3/2016 7:21:22 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0038	0.00069	0.0050	J	mg/L	5	9/23/2016 11:29:48 AM	A37462
Lead	0.00031	0.00017	0.00050	J	mg/L	1	9/22/2016 9:42:03 PM	B37425

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 1:20:00 PM
Lab ID: 1609507-005 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Selenium	0.0072	0.0011	0.0050		mg/L	5	9/23/2016 11:29:48 AM	A37462
Uranium	0.059	0.00026	0.0025	*	mg/L	5	9/23/2016 11:29:48 AM	A37462
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0047	0.0011	0.0050	J	mg/L	5	9/22/2016 3:52:59 PM	27613
Lead	0.0023	0.000081	0.00050		mg/L	1	9/21/2016 6:31:27 PM	27613
Selenium	0.0069	0.00094	0.0050		mg/L	5	9/22/2016 3:52:59 PM	27613
Uranium	0.058	0.00087	0.0025	*	mg/L	5	9/22/2016 3:52:59 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:12:51 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Benzoic acid	12	2.6	20	J	µg/L	1	9/17/2016 11:52:05 AM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Bis(2-ethylhexyl)phthalate	4.6	2.6	10	J	µg/L	1	9/17/2016 11:52:05 AM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 11:52:05 AM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Di-n-octyl phthalate	3.8	2.0	10	J	µg/L	1	9/17/2016 11:52:05 AM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 1:20:00 PM
Lab ID: 1609507-005
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 11:52:05 AM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/17/2016 11:52:05 AM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 11:52:05 AM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 11:52:05 AM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 11:52:05 AM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 11:52:05 AM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 11:52:05 AM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 11:52:05 AM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 11:52:05 AM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 11:52:05 AM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 11:52:05 AM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 11:52:05 AM	27489

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 1:20:00 PM
Lab ID: 1609507-005 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 11:52:05 AM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 11:52:05 AM	27489
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 11:52:05 AM	27489
Surr: 2-Fluorophenol	22.9	0	15-123		%Rec	1	9/17/2016 11:52:05 AM	27489
Surr: Phenol-d5	21.2	0	15-124		%Rec	1	9/17/2016 11:52:05 AM	27489
Surr: 2,4,6-Tribromophenol	58.0	0	18.4-134		%Rec	1	9/17/2016 11:52:05 AM	27489
Surr: Nitrobenzene-d5	64.0	0	28.8-134		%Rec	1	9/17/2016 11:52:05 AM	27489
Surr: 2-Fluorobiphenyl	53.6	0	35.9-125		%Rec	1	9/17/2016 11:52:05 AM	27489
Surr: 4-Terphenyl-d14	38.5	0	15-146		%Rec	1	9/17/2016 11:52:05 AM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	0.47	0.19	2.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
Toluene	ND	0.24	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Ethylbenzene	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Methyl tert-butyl ether (MTBE)	750	4.2	20		µg/L	20	9/13/2016 4:09:18 PM	R37165
1,2,4-Trimethylbenzene	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,3,5-Trimethylbenzene	ND	0.23	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2-Dichloroethane (EDC)	17	0.23	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Naphthalene	ND	0.19	4.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1-Methylnaphthalene	ND	0.41	8.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
2-Methylnaphthalene	ND	0.32	8.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Acetone	ND	9.8	20		µg/L	2	9/13/2016 4:38:15 PM	R37165
Bromobenzene	ND	0.20	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Bromodichloromethane	ND	0.28	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Bromoform	ND	0.20	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Bromomethane	ND	1.6	6.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
2-Butanone	ND	1.5	20		µg/L	2	9/13/2016 4:38:15 PM	R37165
Carbon disulfide	ND	1.2	20		µg/L	2	9/13/2016 4:38:15 PM	R37165
Carbon Tetrachloride	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Chlorobenzene	ND	0.23	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Chloroethane	ND	0.38	4.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Chloroform	ND	0.18	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Chloromethane	ND	0.43	6.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
2-Chlorotoluene	ND	0.80	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
4-Chlorotoluene	ND	0.26	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
cis-1,2-DCE	1.5	0.25	2.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
cis-1,3-Dichloropropene	ND	0.21	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.47	4.0		µg/L	2	9/13/2016 4:38:15 PM	R37165

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Project: 2016 3RD QTR (MKTF)
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Lab ID: 1609507-005 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Dibromochloromethane	ND	0.17	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Dibromomethane	ND	0.24	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2-Dichlorobenzene	ND	0.80	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,3-Dichlorobenzene	ND	0.29	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,4-Dichlorobenzene	ND	0.29	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Dichlorodifluoromethane	ND	0.71	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1-Dichloroethane	12	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1-Dichloroethene	26	0.21	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2-Dichloropropane	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,3-Dichloropropane	ND	0.31	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
2,2-Dichloropropane	ND	0.33	4.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1-Dichloropropene	ND	0.27	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Hexachlorobutadiene	ND	0.40	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
2-Hexanone	ND	1.7	20		µg/L	2	9/13/2016 4:38:15 PM	R37165
Isopropylbenzene	0.27	0.21	2.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
4-Isopropyltoluene	ND	0.28	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
4-Methyl-2-pentanone	ND	0.86	20		µg/L	2	9/13/2016 4:38:15 PM	R37165
Methylene Chloride	1.0	0.37	6.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
n-Butylbenzene	ND	0.32	6.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
n-Propylbenzene	ND	0.26	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
sec-Butylbenzene	1.1	0.25	2.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
Styrene	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
tert-Butylbenzene	ND	0.23	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.22	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.26	4.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Tetrachloroethene (PCE)	ND	0.30	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
trans-1,2-DCE	ND	0.80	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
trans-1,3-Dichloropropene	ND	0.21	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2,3-Trichlorobenzene	ND	0.23	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2,4-Trichlorobenzene	ND	0.27	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1,1-Trichloroethane	0.61	0.18	2.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
1,1,2-Trichloroethane	1.1	0.25	2.0	J	µg/L	2	9/13/2016 4:38:15 PM	R37165
Trichloroethene (TCE)	ND	0.35	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Trichlorofluoromethane	ND	0.41	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
1,2,3-Trichloropropane	ND	0.40	4.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Vinyl chloride	ND	0.39	2.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Xylenes, Total	ND	0.73	3.0		µg/L	2	9/13/2016 4:38:15 PM	R37165
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	2	9/13/2016 4:38:15 PM	R37165
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	2	9/13/2016 4:38:15 PM	R37165

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 1:20:00 PM
Lab ID: 1609507-005 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: Dibromofluoromethane	105	0	70-130		%Rec	2	9/13/2016 4:38:15 PM	R37165
Surr: Toluene-d8	96.0	0	70-130		%Rec	2	9/13/2016 4:38:15 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.79	0.030	0.10		mg/L	2	9/13/2016 4:38:15 PM	G37165
Surr: BFB	99.5	0	70-130		%Rec	2	9/13/2016 4:38:15 PM	G37165

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB090916
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 2:20:00 PM
Lab ID: 1609507-006
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/13/2016 12:38:49 AM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 12:38:49 AM	27435
Surr: DNOP	160	0	77.1-144	S	%Rec	1	9/13/2016 12:38:49 AM	27435
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.050	0.10		mg/L	1	9/13/2016 12:34:35 AM	R37147
Chloride	ND	0.051	0.50		mg/L	1	9/13/2016 12:34:35 AM	R37147
Bromide	ND	0.044	0.10		mg/L	1	9/13/2016 12:34:35 AM	R37147
Phosphorus, Orthophosphate (As P)	0.28	0.076	0.50	JH	mg/L	1	9/13/2016 12:34:35 AM	R37147
Sulfate	ND	0.14	0.50		mg/L	1	9/13/2016 12:34:35 AM	R37147
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/17/2016 11:54:21 PM	A37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	ND	0.0013	0.0020		mg/L	1	9/29/2016 3:12:37 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 3:12:37 PM	E37552
Calcium	ND	0.50	1.0		mg/L	1	9/29/2016 3:12:37 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 3:12:37 PM	E37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 3:12:37 PM	E37552
Iron	ND	0.020	0.020		mg/L	1	9/29/2016 3:12:37 PM	E37552
Magnesium	ND	0.50	1.0		mg/L	1	9/29/2016 3:12:37 PM	E37552
Manganese	ND	0.00032	0.0020		mg/L	1	9/29/2016 3:12:37 PM	E37552
Potassium	ND	0.50	1.0		mg/L	1	9/29/2016 3:12:37 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 3:12:37 PM	E37552
Sodium	ND	0.50	1.0		mg/L	1	9/29/2016 3:12:37 PM	E37552
Zinc	0.035	0.0028	0.010		mg/L	1	9/29/2016 3:12:37 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	ND	0.00079	0.0020		mg/L	1	10/3/2016 7:25:14 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 7:25:14 PM	27613
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 7:25:14 PM	27613
Copper	ND	0.0030	0.0060		mg/L	1	10/3/2016 7:25:14 PM	27613
Iron	ND	0.020	0.020		mg/L	1	10/3/2016 7:25:14 PM	27613
Manganese	0.00070	0.00027	0.0020	J	mg/L	1	10/3/2016 7:25:14 PM	27613
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 7:25:14 PM	27613
Zinc	ND	0.0027	0.010		mg/L	1	10/3/2016 7:25:14 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	ND	0.00014	0.0010		mg/L	1	9/22/2016 9:47:11 PM	B37425
Lead	ND	0.00017	0.00050		mg/L	1	9/22/2016 9:47:11 PM	B37425
Selenium	ND	0.00021	0.0010		mg/L	1	9/22/2016 9:47:11 PM	B37425
Uranium	ND	0.000051	0.00050		mg/L	1	9/23/2016 11:32:51 AM	A37462

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB090916
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 2:20:00 PM
Lab ID: 1609507-006
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.00022	0.00021	0.0010	J	mg/L	1	9/21/2016 6:34:27 PM	27613
Lead	ND	0.000081	0.00050		mg/L	1	9/21/2016 6:34:27 PM	27613
Selenium	ND	0.00019	0.0010		mg/L	1	9/21/2016 6:34:27 PM	27613
Uranium	ND	0.00017	0.00050		mg/L	1	9/21/2016 6:34:27 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:14:55 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Benzoic acid	7.2	2.6	20	J	µg/L	1	9/17/2016 12:19:45 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Bis(2-ethylhexyl)phthalate	3.3	2.6	10	J	µg/L	1	9/17/2016 12:19:45 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 12:19:45 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Di-n-octyl phthalate	3.5	2.0	10	J	µg/L	1	9/17/2016 12:19:45 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 12:19:45 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB090916
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 2:20:00 PM
Lab ID: 1609507-006
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/17/2016 12:19:45 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 12:19:45 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 12:19:45 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 12:19:45 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 12:19:45 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 12:19:45 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 12:19:45 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 12:19:45 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 12:19:45 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 12:19:45 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 12:19:45 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 12:19:45 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 12:19:45 PM	27489

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB090916
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 2:20:00 PM
Lab ID: 1609507-006
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 12:19:45 PM	27489
Surr: 2-Fluorophenol	50.7	0	15-123		%Rec	1	9/17/2016 12:19:45 PM	27489
Surr: Phenol-d5	36.9	0	15-124		%Rec	1	9/17/2016 12:19:45 PM	27489
Surr: 2,4,6-Tribromophenol	94.1	0	18.4-134		%Rec	1	9/17/2016 12:19:45 PM	27489
Surr: Nitrobenzene-d5	68.3	0	28.8-134		%Rec	1	9/17/2016 12:19:45 PM	27489
Surr: 2-Fluorobiphenyl	65.4	0	35.9-125		%Rec	1	9/17/2016 12:19:45 PM	27489
Surr: 4-Terphenyl-d14	48.8	0	15-146		%Rec	1	9/17/2016 12:19:45 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Acetone	6.4	4.9	10	J	µg/L	1	9/13/2016 5:07:10 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 5:07:10 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 5:07:10 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB090916
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 2:20:00 PM
Lab ID: 1609507-006
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 5:07:10 PM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 5:07:10 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 5:07:10 PM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 5:07:10 PM	R37165
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	1	9/13/2016 5:07:10 PM	R37165
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	9/13/2016 5:07:10 PM	R37165
Surr: Dibromofluoromethane	103	0	70-130		%Rec	1	9/13/2016 5:07:10 PM	R37165
Surr: Toluene-d8	94.1	0	70-130		%Rec	1	9/13/2016 5:07:10 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

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Client Sample ID: FB090916
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 2:20:00 PM
Lab ID: 1609507-006
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/13/2016 5:07:10 PM	G37165
Surr: BFB	99.8	0	70-130		%Rec	1	9/13/2016 5:07:10 PM	G37165

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 3:00:00 PM
Lab ID: 1609507-007
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	9/21/2016 7:48:01 PM	27623
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/13/2016 1:00:36 AM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 1:00:36 AM	27435
Surr: DNOP	167	0	77.1-144	S	%Rec	1	9/13/2016 1:00:36 AM	27435
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.29	0.050	0.10		mg/L	1	9/13/2016 12:59:24 AM	R37147
Chloride	910	2.5	25		mg/L	50	9/24/2016 2:47:23 AM	A37469
Bromide	2.3	0.044	0.10		mg/L	1	9/13/2016 12:59:24 AM	R37147
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/13/2016 12:59:24 AM	R37147
Sulfate	60	2.8	10		mg/L	20	9/13/2016 1:11:49 AM	R37147
Nitrate+Nitrite as N	5.7	0.46	1.0		mg/L	5	9/18/2016 12:06:46 AM	A37294
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.059	0.0013	0.0020		mg/L	1	9/29/2016 3:16:36 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 3:16:36 PM	E37552
Calcium	13	0.50	1.0		mg/L	1	9/29/2016 3:16:36 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 3:16:36 PM	E37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 3:16:36 PM	E37552
Iron	ND	0.020	0.020		mg/L	1	9/29/2016 3:16:36 PM	E37552
Magnesium	1.6	0.50	1.0		mg/L	1	9/29/2016 3:16:36 PM	E37552
Manganese	0.0012	0.00032	0.0020	J	mg/L	1	9/29/2016 3:16:36 PM	E37552
Potassium	1.5	0.50	1.0		mg/L	1	9/29/2016 3:16:36 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 3:16:36 PM	E37552
Sodium	640	5.0	10		mg/L	10	9/29/2016 3:18:39 PM	E37552
Zinc	0.0098	0.0028	0.010	J	mg/L	1	9/29/2016 3:16:36 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.12	0.00079	0.0020		mg/L	1	10/3/2016 7:29:42 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 7:29:42 PM	27613
Chromium	0.0030	0.0027	0.0060	J	mg/L	1	10/3/2016 7:29:42 PM	27613
Copper	0.0031	0.0030	0.0060	J	mg/L	1	10/3/2016 7:29:42 PM	27613
Iron	2.5	0.10	0.10	*	mg/L	5	10/3/2016 7:31:26 PM	27613
Manganese	0.12	0.00027	0.0020	*	mg/L	1	10/3/2016 7:29:42 PM	27613
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 7:29:42 PM	27613
Zinc	0.018	0.0027	0.010		mg/L	1	10/3/2016 7:29:42 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	ND	0.0069	0.050		mg/L	50	9/23/2016 11:48:12 AM	A37462
Lead	ND	0.00017	0.00050		mg/L	1	9/22/2016 9:52:19 PM	B37425

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 3:00:00 PM
Lab ID: 1609507-007
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Selenium	0.048	0.0011	0.0050		mg/L	5	9/23/2016 11:38:58 AM	A37462
Uranium	0.014	0.000051	0.00050		mg/L	1	9/23/2016 11:35:54 AM	A37462
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0061	0.0021	0.010	J	mg/L	10	9/22/2016 4:05:05 PM	27613
Lead	0.0037	0.000081	0.00050		mg/L	1	9/21/2016 6:37:28 PM	27613
Selenium	0.045	0.0094	0.050	J	mg/L	50	9/22/2016 4:08:05 PM	27613
Uranium	0.015	0.00017	0.00050		mg/L	1	9/21/2016 6:37:28 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:21:14 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Benzoic acid	9.8	2.6	20	J	µg/L	1	9/17/2016 12:47:27 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Bis(2-ethylhexyl)phthalate	3.1	2.6	10	J	µg/L	1	9/17/2016 12:47:27 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 12:47:27 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Di-n-octyl phthalate	3.5	2.0	10	J	µg/L	1	9/17/2016 12:47:27 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 3:00:00 PM
Lab ID: 1609507-007
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 12:47:27 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/17/2016 12:47:27 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 12:47:27 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 12:47:27 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 12:47:27 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 12:47:27 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 12:47:27 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 12:47:27 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 12:47:27 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 12:47:27 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 12:47:27 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 12:47:27 PM	27489

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 3:00:00 PM
Lab ID: 1609507-007
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 12:47:27 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 12:47:27 PM	27489
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 12:47:27 PM	27489
Surr: 2-Fluorophenol	39.9	0	15-123		%Rec	1	9/17/2016 12:47:27 PM	27489
Surr: Phenol-d5	31.5	0	15-124		%Rec	1	9/17/2016 12:47:27 PM	27489
Surr: 2,4,6-Tribromophenol	81.1	0	18.4-134		%Rec	1	9/17/2016 12:47:27 PM	27489
Surr: Nitrobenzene-d5	60.7	0	28.8-134		%Rec	1	9/17/2016 12:47:27 PM	27489
Surr: 2-Fluorobiphenyl	56.1	0	35.9-125		%Rec	1	9/17/2016 12:47:27 PM	27489
Surr: 4-Terphenyl-d14	42.3	0	15-146		%Rec	1	9/17/2016 12:47:27 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Methyl tert-butyl ether (MTBE)	0.41	0.21	1.0	J	µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2-Dichloroethane (EDC)	2.4	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Acetone	ND	4.9	10		µg/L	1	9/13/2016 5:35:54 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 5:35:54 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 5:35:54 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 5:35:54 PM	R37165

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Qualifiers:

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 3:00:00 PM
Lab ID: 1609507-007 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1-Dichloroethane	2.5	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1-Dichloroethene	6.1	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 5:35:54 PM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 5:35:54 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,1,2-Trichloroethane	0.53	0.13	1.0	J	µg/L	1	9/13/2016 5:35:54 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 5:35:54 PM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 5:35:54 PM	R37165
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	1	9/13/2016 5:35:54 PM	R37165
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	9/13/2016 5:35:54 PM	R37165

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016 3:00:00 PM
Lab ID: 1609507-007 **Matrix:** AQUEOUS **Received Date:** 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: Dibromofluoromethane	103	0	70-130		%Rec	1	9/13/2016 5:35:54 PM	R37165
Surr: Toluene-d8	96.3	0	70-130		%Rec	1	9/13/2016 5:35:54 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/13/2016 5:35:54 PM	G37165
Surr: BFB	98.8	0	70-130		%Rec	1	9/13/2016 5:35:54 PM	G37165

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Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP03
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016
Lab ID: 1609507-008
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/13/2016 1:22:32 AM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 1:22:32 AM	27435
Surr: DNOP	168	0	77.1-144	S	%Rec	1	9/13/2016 1:22:32 AM	27435
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	1.0	2.0		mg/L	20	9/13/2016 2:01:28 AM	R37147
Chloride	18000	51	500		mg/L	1000	9/24/2016 2:59:47 AM	A37469
Bromide	12	0.87	2.0		mg/L	20	9/13/2016 2:01:28 AM	R37147
Phosphorus, Orthophosphate (As P)	6.4	1.5	10	J	mg/L	20	9/13/2016 2:01:28 AM	R37147
Sulfate	1600	140	500		mg/L	1000	9/24/2016 2:59:47 AM	A37469
Nitrate+Nitrite as N	ND	4.6	10		mg/L	50	9/28/2016 3:57:49 PM	R37561
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.086	0.0013	0.0020		mg/L	1	9/29/2016 3:20:30 PM	E37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 3:20:30 PM	E37552
Calcium	3000	50	100		mg/L	100	9/29/2016 3:26:32 PM	E37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 3:20:30 PM	E37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 3:20:30 PM	E37552
Iron	0.086	0.020	0.020		mg/L	1	9/29/2016 3:20:30 PM	E37552
Magnesium	470	2.5	5.0		mg/L	5	9/29/2016 3:22:39 PM	E37552
Manganese	23	0.032	0.20	*	mg/L	100	9/29/2016 3:26:32 PM	E37552
Potassium	8.9	0.50	1.0		mg/L	1	9/29/2016 3:20:30 PM	E37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 3:20:30 PM	E37552
Sodium	6500	50	100		mg/L	100	9/29/2016 3:26:32 PM	E37552
Zinc	0.016	0.0028	0.010		mg/L	1	9/29/2016 3:20:30 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.17	0.0040	0.010		mg/L	5	10/3/2016 7:35:27 PM	27613
Cadmium	ND	0.0074	0.010		mg/L	5	10/3/2016 7:35:27 PM	27613
Chromium	ND	0.013	0.030		mg/L	5	10/3/2016 7:35:27 PM	27613
Copper	ND	0.015	0.030		mg/L	5	10/3/2016 7:35:27 PM	27613
Iron	4.3	0.10	0.10	*	mg/L	5	10/3/2016 7:35:27 PM	27613
Manganese	22	0.014	0.10	*	mg/L	50	10/5/2016 1:52:15 PM	27613
Silver	ND	0.0077	0.025		mg/L	5	10/3/2016 7:35:27 PM	27613
Zinc	0.029	0.013	0.050	J	mg/L	5	10/3/2016 7:35:27 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.025	0.0069	0.050	J*	mg/L	50	9/23/2016 12:00:25 PM	A37462
Lead	ND	0.00084	0.0025		mg/L	5	9/23/2016 11:51:15 AM	A37462
Selenium	0.099	0.021	0.10	J*	mg/L	100	9/23/2016 2:04:19 PM	B37462
Uranium	0.24	0.0026	0.025	*	mg/L	50	9/23/2016 12:00:25 PM	A37462

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP03
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016
Lab ID: 1609507-008
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.025	0.011	0.050	J*	mg/L	50	9/22/2016 4:18:31 PM	27613
Lead	0.0074	0.00041	0.0025		mg/L	5	9/22/2016 4:11:06 PM	27613
Selenium	0.079	0.019	0.10	J*	mg/L	100	9/22/2016 4:21:32 PM	27613
Uranium	0.25	0.0087	0.025	*	mg/L	50	9/22/2016 4:18:31 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:23:20 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Benzoic acid	13	2.6	20	J	µg/L	1	9/17/2016 1:15:10 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Bis(2-ethylhexyl)phthalate	3.4	2.6	10	J	µg/L	1	9/17/2016 1:15:10 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 1:15:10 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Di-n-octyl phthalate	3.4	2.0	10	J	µg/L	1	9/17/2016 1:15:10 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 1:15:10 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP03
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016
Lab ID: 1609507-008
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/17/2016 1:15:10 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 1:15:10 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 1:15:10 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 1:15:10 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 1:15:10 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 1:15:10 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 1:15:10 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 1:15:10 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 1:15:10 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 1:15:10 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 1:15:10 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 1:15:10 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 1:15:10 PM	27489

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP03
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016
Lab ID: 1609507-008
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 1:15:10 PM	27489
Surr: 2-Fluorophenol	16.4	0	15-123		%Rec	1	9/17/2016 1:15:10 PM	27489
Surr: Phenol-d5	10.0	0	15-124	S	%Rec	1	9/17/2016 1:15:10 PM	27489
Surr: 2,4,6-Tribromophenol	50.3	0	18.4-134		%Rec	1	9/17/2016 1:15:10 PM	27489
Surr: Nitrobenzene-d5	54.2	0	28.8-134		%Rec	1	9/17/2016 1:15:10 PM	27489
Surr: 2-Fluorobiphenyl	44.4	0	35.9-125		%Rec	1	9/17/2016 1:15:10 PM	27489
Surr: 4-Terphenyl-d14	29.3	0	15-146		%Rec	1	9/17/2016 1:15:10 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Acetone	ND	4.9	10		µg/L	1	9/13/2016 6:04:36 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 6:04:36 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 6:04:36 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP03
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016
Lab ID: 1609507-008
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 6:04:36 PM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 6:04:36 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 6:04:36 PM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 6:04:36 PM	R37165
Surr: 1,2-Dichloroethane-d4	99.3	0	70-130		%Rec	1	9/13/2016 6:04:36 PM	R37165
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	1	9/13/2016 6:04:36 PM	R37165
Surr: Dibromofluoromethane	101	0	70-130		%Rec	1	9/13/2016 6:04:36 PM	R37165
Surr: Toluene-d8	96.2	0	70-130		%Rec	1	9/13/2016 6:04:36 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP03
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/9/2016
Lab ID: 1609507-008
Matrix: AQUEOUS
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/13/2016 6:04:36 PM	G37165
Surr: BFB	99.0	0	70-130		%Rec	1	9/13/2016 6:04:36 PM	G37165

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 3RD QTR (MKTF)
Collection Date:
Lab ID: 1609507-009
Matrix: TRIP BLANK
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Acetone	6.8	4.9	10	J	µg/L	1	9/13/2016 6:33:17 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 6:33:17 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 6:33:17 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 6:33:17 PM	R37165

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 3RD QTR (MKTF)
Collection Date:
Lab ID: 1609507-009
Matrix: TRIP BLANK
Received Date: 9/10/2016 9:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 6:33:17 PM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 6:33:17 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 6:33:17 PM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 6:33:17 PM	R37165
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	1	9/13/2016 6:33:17 PM	R37165
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	9/13/2016 6:33:17 PM	R37165
Surr: Dibromofluoromethane	104	0	70-130		%Rec	1	9/13/2016 6:33:17 PM	R37165
Surr: Toluene-d8	96.2	0	70-130		%Rec	1	9/13/2016 6:33:17 PM	R37165

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **MB-E**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **E37552**	RunNo: **37552**
Prep Date:	Analysis Date: **9/29/2016**	SeqNo: **1169123** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-E**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **E37552**	RunNo: **37552**
Prep Date:	Analysis Date: **9/29/2016**	SeqNo: **1169127** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.9	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Calcium	50	1.0	50.00	0	99.5	85	115			
Chromium	0.49	0.0060	0.5000	0	98.0	85	115			
Copper	0.50	0.0060	0.5000	0	99.5	85	115			
Iron	0.50	0.020	0.5000	0	99.8	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Manganese	0.50	0.0020	0.5000	0	99.4	85	115			
Potassium	49	1.0	50.00	0	97.3	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	49	1.0	50.00	0	98.6	85	115			
Zinc	0.49	0.010	0.5000	0	97.6	85	115			

Sample ID **LLLCS-E**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **E37552**	RunNo: **37552**
Prep Date:	Analysis Date: **9/29/2016**	SeqNo: **1169128** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0018	0.0020	0.002000	0	91.0	50	150			J
Cadmium	0.0021	0.0020	0.002000	0	103	50	150			
Calcium	0.51	1.0	0.5000	0	102	50	150			J
Chromium	0.0064	0.0060	0.006000	0	107	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **LLLCS-E**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **E37552**	RunNo: **37552**
Prep Date:	Analysis Date: **9/29/2016**	SeqNo: **1169128** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0081	0.0060	0.006000	0	135	50	150			
Iron	0.021	0.020	0.02000	0	106	50	150			
Magnesium	0.52	1.0	0.5000	0	105	50	150			J
Manganese	0.0020	0.0020	0.002000	0	101	50	150			
Potassium	0.53	1.0	0.5000	0	105	50	150			J
Silver	0.0050	0.0050	0.005000	0	100	50	150			
Sodium	0.50	1.0	0.5000	0	100	50	150			J
Zinc	0.0050	0.010	0.005000	0	101	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **MB-27613**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **27613**	RunNo: **37369**
Prep Date: **9/20/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161052** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	0.00038	0.0020								J
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-27613**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **27613**	RunNo: **37369**
Prep Date: **9/20/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161053** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.6	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.48	0.0060	0.5000	0	96.6	85	115			
Copper	0.48	0.0060	0.5000	0	95.5	85	115			
Iron	0.49	0.020	0.5000	0	97.6	85	115			
Manganese	0.48	0.0020	0.5000	0	95.7	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			
Zinc	0.48	0.010	0.5000	0	95.9	85	115			

Sample ID **LLLCS-27613**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **27613**	RunNo: **37369**
Prep Date: **9/20/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161054** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0024	0.0020	0.002000	0	121	50	150			
Cadmium	0.0020	0.0020	0.002000	0	101	50	150			
Chromium	0.0062	0.0060	0.006000	0	104	50	150			
Copper	0.0053	0.0060	0.006000	0	88.2	50	150			J
Manganese	0.0020	0.0020	0.002000	0	102	50	150			
Silver	0.0051	0.0050	0.005000	0	102	50	150			
Zinc	0.0054	0.010	0.005000	0	109	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**LLLCS-27613**	SampType: **LCSLL**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID: **27613**			RunNo: **37369**					
Prep Date:	**9/20/2016**	Analysis Date: **9/21/2016**			SeqNo: **1161124**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.020	0.020	0.02000	0	102	50	150			

Sample ID	**1609507-001FMS**	SampType: **MS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-44**	Batch ID: **27613**			RunNo: **37643**					
Prep Date:	**9/20/2016**	Analysis Date: **10/3/2016**			SeqNo: **1171758**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.71	0.0020	0.5000	0.2642	90.0	70	130			
Cadmium	0.47	0.0020	0.5000	0	93.2	70	130			
Chromium	0.48	0.0060	0.5000	0.03096	89.8	70	130			
Copper	0.52	0.0060	0.5000	0.01865	99.6	70	130			
Manganese	0.96	0.0020	0.5000	0.5286	85.7	70	130			
Zinc	0.55	0.010	0.5000	0.08861	92.3	70	130			

Sample ID	**1609507-001FMSD**	SampType: **MSD**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-44**	Batch ID: **27613**			RunNo: **37643**					
Prep Date:	**9/20/2016**	Analysis Date: **10/3/2016**			SeqNo: **1171759**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.67	0.0020	0.5000	0.2642	80.8	70	130	6.69	20	
Cadmium	0.44	0.0020	0.5000	0	88.3	70	130	5.43	20	
Chromium	0.45	0.0060	0.5000	0.03096	83.8	70	130	6.43	20	
Copper	0.48	0.0060	0.5000	0.01865	92.4	70	130	7.12	20	
Manganese	0.90	0.0020	0.5000	0.5286	73.3	70	130	6.72	20	
Zinc	0.51	0.010	0.5000	0.08861	84.5	70	130	7.33	20	

Sample ID	**1609507-002GMS**	SampType: **MS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-25**	Batch ID: **27613**			RunNo: **37643**					
Prep Date:	**9/20/2016**	Analysis Date: **10/3/2016**			SeqNo: **1171767**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.93	0.0020	0.5000	0.4482	96.1	70	130			
Cadmium	0.50	0.0020	0.5000	0	100	70	130			
Chromium	0.49	0.0060	0.5000	0	97.1	70	130			
Copper	0.54	0.0060	0.5000	0.005950	107	70	130			
Zinc	0.49	0.010	0.5000	0.01169	95.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**1609507-002GMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-25**	Batch ID:	**27613**		RunNo:	**37643**				
Prep Date:	**9/20/2016**	Analysis Date:	**10/3/2016**		SeqNo:	**1171768**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.94	0.0020	0.5000	0.4482	97.4	70	130	0.711	20	
Cadmium	0.51	0.0020	0.5000	0	101	70	130	1.18	20	
Chromium	0.49	0.0060	0.5000	0	98.9	70	130	1.85	20	
Copper	0.55	0.0060	0.5000	0.005950	108	70	130	1.15	20	
Zinc	0.50	0.010	0.5000	0.01169	96.9	70	130	1.39	20	

Sample ID	**1609507-002GMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-25**	Batch ID:	**27613**		RunNo:	**37643**				
Prep Date:	**9/20/2016**	Analysis Date:	**10/3/2016**		SeqNo:	**1171770**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	3.9	0.010	0.5000	3.385	93.8	70	130			

Sample ID	**1609507-002GMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-25**	Batch ID:	**27613**		RunNo:	**37643**				
Prep Date:	**9/20/2016**	Analysis Date:	**10/3/2016**		SeqNo:	**1171771**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	3.9	0.010	0.5000	3.385	111	70	130	2.19	20	

Sample ID	**1609507-001FMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-44**	Batch ID:	**27613**		RunNo:	**37699**				
Prep Date:	**9/20/2016**	Analysis Date:	**10/5/2016**		SeqNo:	**1174290**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.026	0.025	0.1000	0	26.1	70	130			S

Sample ID	**1609507-001FMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-44**	Batch ID:	**27613**		RunNo:	**37699**				
Prep Date:	**9/20/2016**	Analysis Date:	**10/5/2016**		SeqNo:	**1174294**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.027	0.025	0.1000	0	27.1	70	130	3.76	20	S

Sample ID	**1609507-002GMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-25**	Batch ID:	**28020**		RunNo:	**37932**				
Prep Date:	**10/12/2016**	Analysis Date:	**10/13/2016**		SeqNo:	**1181988**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.096	0.0050	0.1000	0	95.7	70	130			

Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**1609507-002GMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-25**	Batch ID:	**28020**		RunNo:	**37932**				
Prep Date:	**10/12/2016**	Analysis Date:	**10/13/2016**		SeqNo:	**1181989**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.097	0.0050	0.1000	0	97.0	70	130	1.37	20	

Sample ID	**MB-28020**	SampType:	**MBLK**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**PBW**	Batch ID:	**28020**		RunNo:	**37932**				
Prep Date:	**10/12/2016**	Analysis Date:	**10/13/2016**		SeqNo:	**1182663**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID	**LCS-28020**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**LCSW**	Batch ID:	**28020**		RunNo:	**37932**				
Prep Date:	**10/12/2016**	Analysis Date:	**10/13/2016**		SeqNo:	**1182664**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.096	0.0050	0.1000	0	95.6	85	115			

Sample ID	**LLLCS-28020**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**BatchQC**	Batch ID:	**28020**		RunNo:	**37932**				
Prep Date:	**10/12/2016**	Analysis Date:	**10/13/2016**		SeqNo:	**1182665**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.0042	0.0050	0.005000	0	85.0	50	150			J

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B37386**	RunNo: **37386**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1162018** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	93.8	85	115			
Lead	0.012	0.00050	0.01250	0	97.0	85	115			
Selenium	0.025	0.0010	0.02500	0	99.9	85	115			
Uranium	0.013	0.00050	0.01250	0	103	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37386**	RunNo: **37386**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1162021** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00098	0.0010	0.001000	0	98.2	50	150			J
Lead	0.00050	0.00050	0.0005000	0	100	50	150			
Selenium	0.00098	0.0010	0.001000	0	97.5	50	150			J
Uranium	0.00051	0.00050	0.0005000	0	101	50	150			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B37386**	RunNo: **37386**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1162023** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B37425**	RunNo: **37425**
Prep Date:	Analysis Date: **9/22/2016**	SeqNo: **1163315** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	90.1	85	115			
Lead	0.012	0.00050	0.01250	0	93.2	85	115			
Selenium	0.023	0.0010	0.02500	0	90.3	85	115			
Uranium	0.011	0.00050	0.01250	0	90.9	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37425**	RunNo: **37425**
Prep Date:	Analysis Date: **9/22/2016**	SeqNo: **1163316** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37425**	RunNo: **37425**
Prep Date:	Analysis Date: **9/22/2016**	SeqNo: **1163316** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00091	0.0010	0.001000	0	91.5	50	150			J
Lead	0.00052	0.00050	0.0005000	0	104	50	150			
Selenium	0.00092	0.0010	0.001000	0	91.9	50	150			J
Uranium	0.00048	0.00050	0.0005000	0	95.7	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B37425**	RunNo: **37425**
Prep Date:	Analysis Date: **9/22/2016**	SeqNo: **1163317** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **1609507-008EMSLL**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **DUP03**	Batch ID: **A37462**	RunNo: **37462**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164673** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.068	0.0025	0.06250	0	108	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A37462**	RunNo: **37462**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164727** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	92.9	85	115			
Lead	0.012	0.00050	0.01250	0	96.1	85	115			
Selenium	0.023	0.0010	0.02500	0	91.2	85	115			
Uranium	0.012	0.00050	0.01250	0	93.0	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B37462**	RunNo: **37462**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164728** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.024	0.0010	0.02500	0	95.2	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A37462**	RunNo: **37462**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164730** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00089	0.0010	0.001000	0	89.2	50	150			J
Lead	0.00050	0.00050	0.0005000	0	99.9	50	150			J
Selenium	0.00087	0.0010	0.001000	0	87.1	50	150			J
Uranium	0.00046	0.00050	0.0005000	0	92.8	50	150			J

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37462**	RunNo: **37462**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164731** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.0011	0.0010	0.001000	0	112	50	150			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A37462**	RunNo: **37462**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164733** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B37462**	RunNo: **37462**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164734** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**1609507-004FMSDL**	SampType:	**MSDLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-42**	Batch ID:	**27613**		RunNo:	**37385**				
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161935**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.013	0.00050	0.01250	0.001838	89.7	70	130	8.66	20	

Sample ID	**1609507-004FMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-42**	Batch ID:	**27613**		RunNo:	**37385**				
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161936**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.014	0.00050	0.01250	0.001838	99.2	70	130			

Sample ID	**MB-27613**	SampType:	**MBLK**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**PBW**	Batch ID:	**27613**		RunNo:	**37385**				
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161948**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-27613**	SampType:	**LCS**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**LCSW**	Batch ID:	**27613**		RunNo:	**37385**				
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161951**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	91.9	85	115			
Lead	0.011	0.00050	0.01250	0	90.1	85	115			
Selenium	0.024	0.0010	0.02500	0	94.8	85	115			
Uranium	0.012	0.00050	0.01250	0	95.0	85	115			

Sample ID	**MSLLLCS-27613**	SampType:	**LCSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**BatchQC**	Batch ID:	**27613**		RunNo:	**37385**				
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161954**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	114	50	150			
Lead	0.00046	0.00050	0.0005000	0	92.7	50	150			J
Selenium	0.00097	0.0010	0.001000	0	96.7	50	150			J
Uranium	0.00046	0.00050	0.0005000	0	92.7	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**1609507-003FMSLL**	SampType: **MSLL**		TestCode: **200.8 ICPMS Metals:Total**					
Client ID:	**MKTF-43**	Batch ID: **27613**		RunNo: **37417**					
Prep Date:	**9/20/2016**	Analysis Date: **9/22/2016**		SeqNo: **1162922**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.018	0.0025	0.01250	0.004079	108	70	130			

Sample ID	**1609507-004FMSDL**	SampType: **MSDLL**		TestCode: **200.8 ICPMS Metals:Total**					
Client ID:	**MKTF-42**	Batch ID: **27613**		RunNo: **37417**					
Prep Date:	**9/20/2016**	Analysis Date: **9/22/2016**		SeqNo: **1162926**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0050	0.02500	0.004203	97.9	70	130	0.838	20	
Uranium	0.030	0.0025	0.01250	0.01716	100	70	130	2.04	20	

Sample ID	**1609507-004FMSLL**	SampType: **MSLL**		TestCode: **200.8 ICPMS Metals:Total**					
Client ID:	**MKTF-42**	Batch ID: **27613**		RunNo: **37417**					
Prep Date:	**9/20/2016**	Analysis Date: **9/22/2016**		SeqNo: **1162927**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0050	0.02500	0.004203	98.9	70	130			
Uranium	0.030	0.0025	0.01250	0.01716	105	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**MB-27664**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**27664**	RunNo:	**37436**					
Prep Date:	**9/22/2016**	Analysis Date:	**9/23/2016**	SeqNo:	**1163804**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-27664**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**27664**	RunNo:	**37436**					
Prep Date:	**9/22/2016**	Analysis Date:	**9/23/2016**	SeqNo:	**1163806**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	106	80	120			

Sample ID	**1609507-001FMS**	SampType:	**MS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**MKTF-44**	Batch ID:	**27664**	RunNo:	**37436**					
Prep Date:	**9/22/2016**	Analysis Date:	**9/23/2016**	SeqNo:	**1163810**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0060	0.00020	0.005000	.00009952	118	75	125			

Sample ID	**1609507-001FMSD**	SampType:	**MSD**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**MKTF-44**	Batch ID:	**27664**	RunNo:	**37436**					
Prep Date:	**9/22/2016**	Analysis Date:	**9/23/2016**	SeqNo:	**1163811**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0059	0.00020	0.005000	.00009952	116	75	125	1.18	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R37147**	RunNo: **37147**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1152031** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R37147**	RunNo: **37147**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1152032** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.7	0.50	5.000	0	94.6	90	110			
Bromide	2.4	0.10	2.500	0	96.0	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.8	90	110			
Sulfate	9.8	0.50	10.00	0	97.6	90	110			

Sample ID **1609507-002EMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **MKTF-25**	Batch ID: **R37147**	RunNo: **37147**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1152050** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0.07290	84.4	74.5	121			
Bromide	2.6	0.10	2.500	0.8934	69.5	74.6	115			S

Sample ID **1609507-002EMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **MKTF-25**	Batch ID: **R37147**	RunNo: **37147**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1152051** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0.07290	84.7	74.5	121	0.303	20	
Bromide	2.6	0.10	2.500	0.8934	69.8	74.6	115	0.330	20	S

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A37294**	RunNo: **37294**
Prep Date:	Analysis Date: **9/17/2016**	SeqNo: **1157982** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A37294**	RunNo: **37294**
Prep Date:	Analysis Date: **9/17/2016**	SeqNo: **1157983** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	101	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A37469**	RunNo: **37469**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1165133** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A37469**	RunNo: **37469**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1165134** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.8	90	110			
Sulfate	9.7	0.50	10.00	0	96.7	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R37561**	RunNo: **37561**
Prep Date:	Analysis Date: **9/28/2016**	SeqNo: **1168729** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R37561**	RunNo: **37561**
Prep Date:	Analysis Date: **9/28/2016**	SeqNo: **1168730** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	98.6	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R37589**	RunNo: **37589**
Prep Date:	Analysis Date: **9/29/2016**	SeqNo: **1169949** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	0.082	0.50								J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **LCSb**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R37589**	RunNo: **37589**
Prep Date:	Analysis Date: **9/29/2016**	SeqNo: **1169952** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	91.4	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **MB-27623**	SampType: **MBLK**	TestCode: **EPA Method 8011/504.1: EDB**
Client ID: **PBW**	Batch ID: **27623**	RunNo: **37388**
Prep Date: **9/21/2016**	Analysis Date: **9/21/2016**	SeqNo: **1162067** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID **LCS-27623**	SampType: **LCS**	TestCode: **EPA Method 8011/504.1: EDB**
Client ID: **LCSW**	Batch ID: **27623**	RunNo: **37388**
Prep Date: **9/21/2016**	Analysis Date: **9/21/2016**	SeqNo: **1162073** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.11	0.010	0.1000	0	114	70	130			

Sample ID **LCSD-27623**	SampType: **LCSD**	TestCode: **EPA Method 8011/504.1: EDB**
Client ID: **LCSS02**	Batch ID: **27623**	RunNo: **37388**
Prep Date: **9/21/2016**	Analysis Date: **9/21/2016**	SeqNo: **1162075** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.12	0.010	0.1000	0	119	70	130	4.13	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **LCS-27435**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **27435**	RunNo: **37115**
Prep Date: **9/12/2016**	Analysis Date: **9/12/2016**	SeqNo: **1151345** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.6	1.0	5.000	0	111	63.2	155			
Surr: DNOP	0.59		0.5000		119	77.1	144			

Sample ID **MB-27435**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **27435**	RunNo: **37115**
Prep Date: **9/12/2016**	Analysis Date: **9/12/2016**	SeqNo: **1151346** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.3		1.000		127	77.1	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152880** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.1	70	130			
Toluene	18	1.0	20.00	0	92.2	70	130			
Chlorobenzene	17	1.0	20.00	0	86.5	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.1	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.0	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		99.9	70	130			
Surr: Toluene-d8	9.6		10.00		95.5	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152881** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	0.10								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	0.10								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	0.10								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	0.10								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152881** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	0.51	0.10								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152881** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.7	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.8		10.00		97.6	70	130			

Sample ID **1609507-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-44**	Batch ID: **R37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152896** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.6	70	130			
Toluene	18	1.0	20.00	0	91.1	70	130			
Chlorobenzene	18	1.0	20.00	0	87.8	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	95.7	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	91.7	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	9.5		10.00		95.1	70	130			

Sample ID **1609507-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-44**	Batch ID: **R37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152897** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.8	70	130	1.85	20	
Toluene	17	1.0	20.00	0	85.8	70	130	6.01	20	
Chlorobenzene	17	1.0	20.00	0	84.3	70	130	4.02	20	
1,1-Dichloroethene	19	1.0	20.00	0	93.7	70	130	2.11	20	
Trichloroethene (TCE)	17	1.0	20.00	0	87.2	70	130	4.98	20	
Surr: 1,2-Dichloroethane-d4	11		10.00		108	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130	0	0	
Surr: Dibromofluoromethane	10		10.00		103	70	130	0	0	
Surr: Toluene-d8	9.5		10.00		94.9	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **mb-27489**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **27489**	RunNo: **37269**
Prep Date: **9/14/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157087** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	6.6	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	5.6	10								J
Diethyl phthalate	ND	10								
Dimethyl phthalate	3.0	10								J
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	7.9	20								J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **mb-27489**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **27489**	RunNo: **37269**
Prep Date: **9/14/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157087** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	2.9	10								J
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	2.5	10								J
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	96		200.0		48.1	15	123			
Surr: Phenol-d5	82		200.0		40.8	4.13	124			
Surr: 2,4,6-Tribromophenol	140		200.0		69.0	18.4	134			
Surr: Nitrobenzene-d5	65		100.0		64.9	28.8	134			
Surr: 2-Fluorobiphenyl	57		100.0		57.0	35.9	125			
Surr: 4-Terphenyl-d14	58		100.0		58.2	15	146			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **lcs-27489**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **27489**	RunNo: **37269**
Prep Date: **9/14/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157090** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	72	10	100.0	0	71.6	35	113			
4-Chloro-3-methylphenol	140	10	200.0	0	71.2	40.7	114			
2-Chlorophenol	140	10	200.0	0	70.9	37.6	113			
1,4-Dichlorobenzene	56	10	100.0	0	56.2	37.7	106			
2,4-Dinitrotoluene	67	10	100.0	0	67.2	37	91			
N-Nitrosodi-n-propylamine	73	10	100.0	0	72.5	45.4	105			
4-Nitrophenol	110	10	200.0	0	52.9	33.4	104			
Pentachlorophenol	120	20	200.0	0	58.0	29.5	94.9			
Phenol	110	10	200.0	0	57.3	30.6	119			
Pyrene	62	10	100.0	0	62.4	26.2	120			
1,2,4-Trichlorobenzene	62	10	100.0	0	62.2	39.9	125			
Surr: 2-Fluorophenol	120		200.0		60.1	15	123			
Surr: Phenol-d5	130		200.0		63.9	4.13	124			
Surr: 2,4,6-Tribromophenol	150		200.0		74.4	18.4	134			
Surr: Nitrobenzene-d5	70		100.0		69.6	28.8	134			
Surr: 2-Fluorobiphenyl	67		100.0		67.2	35.9	125			
Surr: 4-Terphenyl-d14	48		100.0		48.4	15	146			

Sample ID **1609507-002dms**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **MKTF-25**	Batch ID: **27489**	RunNo: **37269**
Prep Date: **9/14/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157094** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	48	10	100.0	0	47.7	27.6	123			
4-Chloro-3-methylphenol	57	10	200.0	0	28.5	29.3	126			S
2-Chlorophenol	63	10	200.0	0	31.4	15	133			
1,4-Dichlorobenzene	34	10	100.0	0	34.0	17.6	127			
2,4-Dinitrotoluene	54	10	100.0	0	54.1	38.9	98.5			
N-Nitrosodi-n-propylamine	57	10	100.0	0	57.1	25.9	131			
4-Nitrophenol	40	10	200.0	0	20.0	15	102			
Pentachlorophenol	74	20	200.0	0	37.1	15	120			
Phenol	34	10	200.0	11.68	11.2	15	100			S
Pyrene	47	10	100.0	0	47.1	22.8	126			
1,2,4-Trichlorobenzene	39	10	100.0	0	38.6	15	143			
Surr: 2-Fluorophenol	35		200.0		17.4	15	123			
Surr: Phenol-d5	28		200.0		13.8	4.13	124			
Surr: 2,4,6-Tribromophenol	86		200.0		43.1	18.4	134			
Surr: Nitrobenzene-d5	52		100.0		52.5	28.8	134			
Surr: 2-Fluorobiphenyl	41		100.0		41.2	35.9	125			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **1609507-002dms**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **MKTF-25**	Batch ID: **27489**	RunNo: **37269**
Prep Date: **9/14/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157094** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	33		100.0		33.1	15	146			

Sample ID **1609507-002DMSD**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **MKTF-25**	Batch ID: **27489**	RunNo: **37269**
Prep Date: **9/14/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157095** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	46	10	100.0	0	46.5	27.6	123	2.67	31.3	
4-Chloro-3-methylphenol	55	10	200.0	0	27.3	29.3	126	4.19	29	S
2-Chlorophenol	56	10	200.0	0	27.8	15	133	12.0	28.4	
1,4-Dichlorobenzene	29	10	100.0	0	29.2	17.6	127	15.2	28.2	
2,4-Dinitrotoluene	51	10	100.0	0	51.4	38.9	98.5	5.12	22.9	
N-Nitrosodi-n-propylamine	49	10	100.0	0	48.8	25.9	131	15.7	28.8	
4-Nitrophenol	43	10	200.0	0	21.3	15	102	6.54	41.5	
Pentachlorophenol	66	20	200.0	0	33.1	15	120	11.5	45.1	
Phenol	42	10	200.0	11.68	15.3	15	100	21.6	33.9	
Pyrene	46	10	100.0	0	46.4	22.8	126	1.41	33.6	
1,2,4-Trichlorobenzene	34	10	100.0	0	34.4	15	143	11.4	28.2	
Surr: 2-Fluorophenol	36		200.0		17.9	15	123	0	0	
Surr: Phenol-d5	34		200.0		17.2	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	75		200.0		37.6	18.4	134	0	0	
Surr: Nitrobenzene-d5	48		100.0		47.7	28.8	134	0	0	
Surr: 2-Fluorobiphenyl	41		100.0		41.1	35.9	125	0	0	
Surr: 4-Terphenyl-d14	51		100.0		50.8	15	146	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609507**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152730** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.52	0.050	0.5000	0	103	75.4	118			
Surr: BFB	10		10.00		100	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152731** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	10		10.00		99.8	70	130			

Sample ID **1609507-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-44**	Batch ID: **G37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152733** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0.02320	95.1	53.8	128			
Surr: BFB	9.8		10.00		98.2	70	130			

Sample ID **1609507-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-44**	Batch ID: **G37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152734** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0.02320	91.3	53.8	128	3.88	20	
Surr: BFB	10		10.00		99.7	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1609507 RcptNo: 1

Received by/date: KM 09/10/16

Logged By: Ashley Gallegos 9/10/2016 9:00:00 AM

Completed By: Ashley Gallegos 9/12/2016 11:14:11 AM

Reviewed By: AG | aJ

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 24 (<2 or >12 unless noted)

Adjusted? NO

Checked by: aJ

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard ☒ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☑ Yes ☐ No
Sample Temperature: 3.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609507	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8011 (1,2-DIBROMOMETHANE)	MAJOR CATIONS ANIONS	WQCC METALS (TOTAL & DISSOLVED)	Air Bubbles (Y or N)
9/16	0835	WATER	MKTF-44	40 ML VOA-6	HCL	-001			✓							✓					
				1 L AMBER-1	NEAT												✓				
				250 ML AMBER-1	NEAT				✓												
				500 ML PLASTIC-1	HNO_3															✓	
				125 ML PLASTIC-1	HNO_3														✓	✓	
				125 ML PLASTIC-1	H_2SO_4														✓		
				500 ML PLASTIC-1	NEAT															✓	
	0930		MKTF-25	40 ML VOA-6	HCL	-002			✓							✓					
				40 ML VOA-3	HCL													✓			
				1 L AMBER-2	NEAT												✓				
				250 ML AMBER-1	NEAT				✓												
				500 ML PLASTIC-1	HNO_3															✓	

Date: 9/16 Time: 0900 Relinquished by:
Date: Time: Relinquished by:

Received by: Date Time: 09/10/16 0900
Received by: Date Time:

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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Tel. 505-345-3975 Fax 505-345-4107

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package:
☐ Standard ☒ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☑ Yes ☐ No
Sample Temperature: 3.0

HEAL No. 1609507

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS (TOTAL & DISSOLVED)		Air Bubbles (Y or N)
9/16	0930	WATER	MKTF-25	125 ML PLASTIC-1	HNO_3	-002												✓	✓		
				125 ML PLASTIC-1	H_2SO_4													✓			
				500 ML PLASTIC-1	NEAT														✓		
	1045	WATER	MKTF-43	40 ML VOA-6	HCL	-003			✓							✓					
				1 L AMBER-1	NEAT												✓				
				250 ML AMBER-1	NEAT				✓												
				500 ML PLASTIC-1	HNO_3														✓		
				125 ML PLASTIC-1	HNO_3													✓	✓		
				125 ML PLASTIC-1	H_2SO_4													✓			
				500 ML PLASTIC-1	NEAT														✓		
	1215	WATER	MKTF-42	40 ML VOA-6	HCL	-004			✓							✓					
				1 L AMBER-1	NEAT												✓				

Date: 9/16 Time: 0900 Relinquished by:

Date: Time: Relinquished by:

Received by: Date: 09/10/16 Time: 0900

Received by: Date: Time:

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Accreditation: NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 3.0

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Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609507	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8011 (1,2-EDB/DIBROMOETHANE)	MAJOR CATIONS/ANIONS	WQCC METALS (TOTAL & DISSOLVED)	Air Bubbles (Y or N)
9/16	1215	WATER	MKTF-42	250 ML AMBER-1	NEAT	-004			✓												
				500 ML PLASTIC-1	HNO_3															✓	
				125 ML PLASTIC-1	HNO_3														✓	✓	
				125 ML PLASTIC-1	H_2SO_4														✓		
				500 ML PLASTIC-1	NEAT															✓	
	1320	WATER	MKTF-32	40 ML VOA-6	HCL	-005			✓							✓					
				40 ML VOA-3	HCL													✓			
				1 L AMBER-1	NEAT												✓				
				250 ML AMBER-1	NEAT				✓												
				500 ML PLASTIC-1	HNO_3															✓	
				125 ML PLASTIC-1	HNO_3														✓	✓	
				125 ML PLASTIC-1	H_2SO_4														✓		

Date: 9/16 Time: 0900 Relinquished by:
Date: Time: Relinquished by:

Received by: Date: 09/10/16 Time: 0900
Received by: Date: Time:

Remarks:

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Chain-of-Custody Record

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Client: WESTERN REFINING SW, INC.
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Mailing Address: 92 GIANT CROSSING RD
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Accreditation: NELAP ☐ Other
EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☑ Yes ☐ No
Sample Temperature: 3.0

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609507	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8011 (1,2-DIBROMOMETHANE)	MAJOR CATIONS / ANIONS	WQCC METALS	(TOTAL & DISSOLVED)	Air Bubbles (Y or N)
9/16	1320	WATER	MKTF-32	500ML PLASTIC-1	NEAT	-005														✓		
	1420	WATER	FB090916	40ML VOA-6	HCL	-006			✓							✓						
				1L AMBER-1	NEAT												✓					
				250ML AMBER-1	NEAT				✓													
				500ML PLASTIC-1	HNO_3													9.9.16 TP		✓	TP 9.9.16	
				125ML PLASTIC-1	HNO_3															✓		
				125ML PLASTIC-1	H_2SO_4															✓		
				500ML PLASTIC-1	NEAT															✓		
	1500	WATER	MKTF-41	40ML VOA-6	HCL	-007			✓							✓						
				40ML VOA-3	HCL													✓				
				1L AMBER-1	NEAT												✓					
				250ML AMBER-1	NEAT				✓													

Date: 9/16 Time: 0900 Relinquished by:
Date: Time: Relinquished by:

Received by: Date Time 09/10/16 0900
Received by: Date Time

Remarks:

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Chain-of-Custody Record

ent: WESTERN REFINING SW, INC.
GALLUP REFINERY
ailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
hone #: 505-722-0231
mail or Fax#: CHERYL.JOHNSON@WNR.COM
A/QC Package:
Standard ☒ Level 4 (Full Validation)
ccreditation
NELAP ☐ Other
EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☐ Yes ☐ No
Sample Temperature: 3.0

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Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609507
9/16	1500	WATER	MKTF-41	500 ML PLASTIC-1	HNO_3	-007
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	
	—	WATER	DUP03	40 ML VOA-6	HCL	-008
				1 L AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				500 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500ML PLASTIC	NEAT	
9/16	—	WATER	TRIP BLANK	40 ML VOA-4	HCL	-009

Analysis Request																
BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
												✓			
												✓	✓		
												✓			
													✓		
		✓							✓						
										✓					
		✓													
													✓		
											✓	✓			
											✓				
												✓			
									✓						

Date: 9/10/16 Time: 0900 Relinquished by:
Date: Time: Relinquished by:
Received by:
Received by: 09/10/16 0900 (Date Time)

Remarks:

This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 25, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 3RD QTR (MKTF) OrderNo.: 1609508

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 9/9/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB090816
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 1:00:00 PM
Lab ID: 1609508-001 **Matrix:** AQUEOUS **Received Date:** 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/13/2016 1:44:20 AM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 1:44:20 AM	27435
Surr: DNOP	128	0	77.1-144		%Rec	1	9/13/2016 1:44:20 AM	27435
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.050	0.10		mg/L	1	9/13/2016 1:39:37 AM	A37143
Chloride	0.38	0.051	0.50	J	mg/L	1	9/13/2016 1:39:37 AM	A37143
Bromide	ND	0.044	0.10		mg/L	1	9/13/2016 1:39:37 AM	A37143
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/13/2016 1:39:37 AM	A37143
Sulfate	2.2	0.14	0.50		mg/L	1	9/13/2016 1:39:37 AM	A37143
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/24/2016 3:17:44 AM	A37467
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	ND	0.0013	0.0020		mg/L	1	9/23/2016 5:05:54 PM	A37443
Cadmium	ND	0.00075	0.0020		mg/L	1	9/23/2016 5:05:54 PM	A37443
Calcium	ND	0.50	1.0		mg/L	1	9/23/2016 5:05:54 PM	A37443
Chromium	ND	0.0018	0.0060		mg/L	1	9/23/2016 5:05:54 PM	A37443
Copper	ND	0.0040	0.0060		mg/L	1	9/23/2016 5:05:54 PM	A37443
Iron	ND	0.020	0.020		mg/L	1	9/23/2016 5:05:54 PM	A37443
Magnesium	ND	0.50	1.0		mg/L	1	9/23/2016 5:05:54 PM	A37443
Manganese	ND	0.00032	0.0020		mg/L	1	9/23/2016 5:05:54 PM	A37443
Potassium	ND	0.50	1.0		mg/L	1	9/23/2016 5:05:54 PM	A37443
Silver	ND	0.0028	0.0050		mg/L	1	9/23/2016 5:05:54 PM	A37443
Sodium	0.91	0.50	1.0	J	mg/L	1	9/23/2016 5:05:54 PM	A37443
Zinc	ND	0.0028	0.010		mg/L	1	9/29/2016 2:18:26 PM	E37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	ND	0.00079	0.0020		mg/L	1	10/3/2016 5:44:48 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 5:44:48 PM	27613
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 5:44:48 PM	27613
Copper	ND	0.0030	0.0060		mg/L	1	10/3/2016 5:44:48 PM	27613
Iron	ND	0.020	0.020		mg/L	1	10/3/2016 5:44:48 PM	27613
Manganese	ND	0.00027	0.0020		mg/L	1	10/3/2016 5:44:48 PM	27613
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 5:44:48 PM	27613
Zinc	ND	0.0027	0.010		mg/L	1	10/3/2016 5:44:48 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	ND	0.00014	0.0010		mg/L	1	9/21/2016 9:54:59 PM	B37386
Lead	ND	0.00017	0.00050		mg/L	1	9/21/2016 9:54:59 PM	B37386
Selenium	ND	0.00021	0.0010		mg/L	1	9/21/2016 9:54:59 PM	B37386
Uranium	ND	0.000051	0.00050		mg/L	1	9/21/2016 9:54:59 PM	B37386

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB090816
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 1:00:00 PM
Lab ID: 1609508-001
Matrix: AQUEOUS
Received Date: 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.00029	0.00021	0.0010	J	mg/L	1	9/21/2016 5:49:16 PM	27613
Lead	ND	0.000081	0.00050		mg/L	1	9/21/2016 5:49:16 PM	27613
Selenium	ND	0.00019	0.0010		mg/L	1	9/21/2016 5:49:16 PM	27613
Uranium	ND	0.00017	0.00050		mg/L	1	9/21/2016 5:49:16 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000072	0.000053	0.00020	J	mg/L	1	9/22/2016 4:18:01 PM	27642
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Benzoic acid	6.7	2.6	20	J	µg/L	1	9/17/2016 2:10:44 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Bis(2-ethylhexyl)phthalate	3.5	2.6	10	J	µg/L	1	9/17/2016 2:10:44 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 2:10:44 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 2:10:44 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 2:10:44 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 2:10:44 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 2:10:44 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Di-n-octyl phthalate	3.3	2.0	10	J	µg/L	1	9/17/2016 2:10:44 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 2:10:44 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 2:10:44 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 2:10:44 PM	27489

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Matrix: AQUEOUS
Received Date: 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 2:10:44 PM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/17/2016 2:10:44 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 2:10:44 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 2:10:44 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 2:10:44 PM	27489
2,4-Dinitrophenol	7.9	2.8	20	J	µg/L	1	9/17/2016 2:10:44 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 2:10:44 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 2:10:44 PM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 2:10:44 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 2:10:44 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 2:10:44 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 2:10:44 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 2:10:44 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 2:10:44 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 2:10:44 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 2:10:44 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 2:10:44 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 2:10:44 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 2:10:44 PM	27489
4-Nitrophenol	2.9	2.6	10	J	µg/L	1	9/17/2016 2:10:44 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 2:10:44 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Pyridine	2.5	2.2	10	J	µg/L	1	9/17/2016 2:10:44 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 2:10:44 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 2:10:44 PM	27489

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Lab ID: 1609508-001
Matrix: AQUEOUS
Received Date: 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 2:10:44 PM	27489
Surr: 2-Fluorophenol	24.4	0	15-123		%Rec	1	9/17/2016 2:10:44 PM	27489
Surr: Phenol-d5	22.2	0	15-124		%Rec	1	9/17/2016 2:10:44 PM	27489
Surr: 2,4,6-Tribromophenol	42.3	0	18.4-134		%Rec	1	9/17/2016 2:10:44 PM	27489
Surr: Nitrobenzene-d5	73.3	0	28.8-134		%Rec	1	9/17/2016 2:10:44 PM	27489
Surr: 2-Fluorobiphenyl	61.4	0	35.9-125		%Rec	1	9/17/2016 2:10:44 PM	27489
Surr: 4-Terphenyl-d14	42.1	0	15-146		%Rec	1	9/17/2016 2:10:44 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Acetone	ND	4.9	10		µg/L	1	9/13/2016 7:02:06 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 7:02:06 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 7:02:06 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165

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Lab ID: 1609508-001 **Matrix:** AQUEOUS **Received Date:** 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 7:02:06 PM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 7:02:06 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 7:02:06 PM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 7:02:06 PM	R37165
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	9/13/2016 7:02:06 PM	R37165
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	9/13/2016 7:02:06 PM	R37165
Surr: Dibromofluoromethane	102	0	70-130		%Rec	1	9/13/2016 7:02:06 PM	R37165
Surr: Toluene-d8	96.1	0	70-130		%Rec	1	9/13/2016 7:02:06 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB090816
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 1:00:00 PM
Lab ID: 1609508-001
Matrix: AQUEOUS
Received Date: 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/13/2016 7:02:06 PM	G37165
Surr: BFB	98.9	0	70-130		%Rec	1	9/13/2016 7:02:06 PM	G37165

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 3:00:00 PM
Lab ID: 1609508-002 **Matrix:** AQUEOUS **Received Date:** 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/13/2016 2:06:15 AM	27435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 2:06:15 AM	27435
Surr: DNOP	123	0	77.1-144		%Rec	1	9/13/2016 2:06:15 AM	27435
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.66	0.050	0.10		mg/L	1	9/13/2016 2:04:27 AM	A37143
Chloride	470	2.5	25		mg/L	50	9/24/2016 2:28:05 AM	A37467
Bromide	2.5	0.044	0.10		mg/L	1	9/13/2016 2:04:27 AM	A37143
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/13/2016 2:04:27 AM	A37143
Sulfate	190	2.8	10		mg/L	20	9/13/2016 2:16:52 AM	A37143
Nitrate+Nitrite as N	0.73	0.46	1.0	J	mg/L	5	9/24/2016 3:30:10 AM	A37467
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.061	0.0013	0.0020		mg/L	1	9/23/2016 5:25:43 PM	A37443
Cadmium	ND	0.00075	0.0020		mg/L	1	9/23/2016 5:25:43 PM	A37443
Calcium	46	0.50	1.0		mg/L	1	9/23/2016 5:25:43 PM	A37443
Chromium	ND	0.0018	0.0060		mg/L	1	9/23/2016 5:25:43 PM	A37443
Copper	ND	0.0040	0.0060		mg/L	1	9/23/2016 5:25:43 PM	A37443
Iron	0.12	0.020	0.020		mg/L	1	9/23/2016 5:25:43 PM	A37443
Magnesium	8.9	0.50	1.0		mg/L	1	9/23/2016 5:25:43 PM	A37443
Manganese	0.031	0.00032	0.0020		mg/L	1	9/23/2016 5:25:43 PM	A37443
Potassium	2.7	0.50	1.0		mg/L	1	9/23/2016 5:25:43 PM	A37443
Silver	ND	0.0028	0.0050		mg/L	1	9/23/2016 5:25:43 PM	A37443
Sodium	620	10	20		mg/L	20	9/29/2016 2:24:03 PM	E37552
Zinc	ND	0.0028	0.010		mg/L	1	10/12/2016 10:59:05 PM	A37917
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.26	0.00079	0.0020		mg/L	1	10/3/2016 5:49:03 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 5:49:03 PM	27613
Chromium	0.0067	0.0027	0.0060		mg/L	1	10/3/2016 5:49:03 PM	27613
Copper	0.0094	0.0030	0.0060		mg/L	1	10/3/2016 5:49:03 PM	27613
Iron	11	0.40	0.40	*	mg/L	20	10/3/2016 6:30:29 PM	27613
Manganese	0.44	0.00027	0.0020	*	mg/L	1	10/3/2016 5:49:03 PM	27613
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 5:49:03 PM	27613
Zinc	0.049	0.0027	0.010		mg/L	1	10/3/2016 5:49:03 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0039	0.0014	0.010	J	mg/L	10	9/22/2016 7:54:00 PM	B37425
Lead	0.00087	0.00017	0.00050		mg/L	1	9/21/2016 9:58:02 PM	B37386
Selenium	0.012	0.011	0.050	J	mg/L	50	9/22/2016 7:59:08 PM	B37425
Uranium	0.14	0.00051	0.0050	*	mg/L	10	9/22/2016 7:54:00 PM	B37425

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 3:00:00 PM
Lab ID: 1609508-002 **Matrix:** AQUEOUS **Received Date:** 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0056	0.0021	0.010	J	mg/L	10	9/22/2016 2:40:34 PM	27613
Lead	0.014	0.000081	0.00050		mg/L	1	9/21/2016 5:52:17 PM	27613
Selenium	0.013	0.0094	0.050	J	mg/L	50	9/22/2016 2:43:34 PM	27613
Uranium	0.14	0.0017	0.0050	*	mg/L	10	9/22/2016 2:40:34 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00011	0.000053	0.00020	J	mg/L	1	9/22/2016 4:20:05 PM	27642
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Benzoic acid	7.3	2.6	20	J	µg/L	1	9/17/2016 2:38:42 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Bis(2-ethylhexyl)phthalate	3.3	2.6	10	J	µg/L	1	9/17/2016 2:38:42 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 2:38:42 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 2:38:42 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 2:38:42 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 2:38:42 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 2:38:42 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Di-n-octyl phthalate	3.4	2.0	10	J	µg/L	1	9/17/2016 2:38:42 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 2:38:42 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 2:38:42 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 2:38:42 PM	27489

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 3:00:00 PM
Lab ID: 1609508-002 **Matrix:** AQUEOUS **Received Date:** 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 2:38:42 PM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Dimethyl phthalate	2.9	2.4	10	J	µg/L	1	9/17/2016 2:38:42 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 2:38:42 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 2:38:42 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 2:38:42 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 2:38:42 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 2:38:42 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 2:38:42 PM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 2:38:42 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 2:38:42 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 2:38:42 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 2:38:42 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 2:38:42 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 2:38:42 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 2:38:42 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 2:38:42 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 2:38:42 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 2:38:42 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 2:38:42 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 2:38:42 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 2:38:42 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 2:38:42 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 2:38:42 PM	27489

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 3:00:00 PM
Lab ID: 1609508-002 **Matrix:** AQUEOUS **Received Date:** 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 2:38:42 PM	27489
Surr: 2-Fluorophenol	25.1	0	15-123		%Rec	1	9/17/2016 2:38:42 PM	27489
Surr: Phenol-d5	24.2	0	15-124		%Rec	1	9/17/2016 2:38:42 PM	27489
Surr: 2,4,6-Tribromophenol	49.2	0	18.4-134		%Rec	1	9/17/2016 2:38:42 PM	27489
Surr: Nitrobenzene-d5	71.5	0	28.8-134		%Rec	1	9/17/2016 2:38:42 PM	27489
Surr: 2-Fluorobiphenyl	63.6	0	35.9-125		%Rec	1	9/17/2016 2:38:42 PM	27489
Surr: 4-Terphenyl-d14	40.4	0	15-146		%Rec	1	9/17/2016 2:38:42 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Methyl tert-butyl ether (MTBE)	2.1	0.21	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Acetone	ND	4.9	10		µg/L	1	9/13/2016 7:31:01 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 7:31:01 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 7:31:01 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 3:00:00 PM
Lab ID: 1609508-002 **Matrix:** AQUEOUS **Received Date:** 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 7:31:01 PM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 7:31:01 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 7:31:01 PM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 7:31:01 PM	R37165
Surr: 1,2-Dichloroethane-d4	99.8	0	70-130		%Rec	1	9/13/2016 7:31:01 PM	R37165
Surr: 4-Bromofluorobenzene	104	0	70-130		%Rec	1	9/13/2016 7:31:01 PM	R37165
Surr: Dibromofluoromethane	104	0	70-130		%Rec	1	9/13/2016 7:31:01 PM	R37165
Surr: Toluene-d8	95.6	0	70-130		%Rec	1	9/13/2016 7:31:01 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 3:00:00 PM
Lab ID: 1609508-002 **Matrix:** AQUEOUS **Received Date:** 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.023	0.015	0.050	J	mg/L	1	9/13/2016 7:31:01 PM	G37165
Surr: BFB	100	0	70-130		%Rec	1	9/13/2016 7:31:01 PM	G37165

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-31
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 4:25:00 PM
Lab ID: 1609508-003 **Matrix:** AQUEOUS **Received Date:** 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	0.0050	0.0033	0.010	J	µg/L	1	9/21/2016 8:03:12 PM	27623
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/13/2016 5:14:58 PM	27473
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 5:14:58 PM	27473
Surr: DNOP	127	0	77.1-144		%Rec	1	9/13/2016 5:14:58 PM	27473
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.050	0.10		mg/L	1	9/13/2016 2:29:16 AM	A37143
Chloride	940	5.1	50		mg/L	100	9/24/2016 2:40:30 AM	A37467
Bromide	1.3	0.044	0.10		mg/L	1	9/13/2016 2:29:16 AM	A37143
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/13/2016 2:29:16 AM	A37143
Sulfate	70	2.8	10		mg/L	20	9/13/2016 2:41:41 AM	A37143
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/24/2016 3:42:34 AM	A37467
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.14	0.0013	0.0020		mg/L	1	9/23/2016 5:29:36 PM	A37443
Cadmium	ND	0.00075	0.0020		mg/L	1	9/23/2016 5:29:36 PM	A37443
Calcium	170	2.5	5.0		mg/L	5	9/23/2016 5:31:36 PM	A37443
Chromium	ND	0.0018	0.0060		mg/L	1	9/23/2016 5:29:36 PM	A37443
Copper	ND	0.0040	0.0060		mg/L	1	9/23/2016 5:29:36 PM	A37443
Iron	ND	0.020	0.020		mg/L	1	9/23/2016 5:29:36 PM	A37443
Magnesium	34	0.50	1.0		mg/L	1	9/23/2016 5:29:36 PM	A37443
Manganese	0.035	0.00032	0.0020		mg/L	1	9/23/2016 5:29:36 PM	A37443
Potassium	1.7	0.50	1.0		mg/L	1	9/23/2016 5:29:36 PM	A37443
Silver	ND	0.0028	0.0050		mg/L	1	9/23/2016 5:29:36 PM	A37443
Sodium	570	10	20		mg/L	20	9/29/2016 2:25:50 PM	E37552
Zinc	ND	0.0028	0.010		mg/L	1	10/12/2016 11:08:14 PM	A37917
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.20	0.00079	0.0020		mg/L	1	10/3/2016 6:00:28 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 6:00:28 PM	27613
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 6:00:28 PM	27613
Copper	0.0065	0.0030	0.0060		mg/L	1	10/3/2016 6:00:28 PM	27613
Iron	1.7	0.10	0.10	*	mg/L	5	10/3/2016 6:02:12 PM	27613
Manganese	0.17	0.00027	0.0020	*	mg/L	1	10/3/2016 6:00:28 PM	27613
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 6:00:28 PM	27613
Zinc	0.013	0.0027	0.010		mg/L	1	10/3/2016 6:00:28 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0021	0.00069	0.0050	J	mg/L	5	9/22/2016 8:04:17 PM	B37425
Lead	0.00084	0.00017	0.00050		mg/L	1	9/21/2016 10:01:06 PM	B37386

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-31
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 4:25:00 PM
Lab ID: 1609508-003
Matrix: AQUEOUS
Received Date: 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Selenium	0.0068	0.0011	0.0050		mg/L	5	9/22/2016 8:04:17 PM	B37425
Uranium	0.040	0.00026	0.0025	*	mg/L	5	9/22/2016 8:04:17 PM	B37425
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0029	0.0011	0.0050	J	mg/L	5	9/22/2016 2:46:35 PM	27613
Lead	0.0043	0.000081	0.00050		mg/L	1	9/21/2016 5:55:17 PM	27613
Selenium	ND	0.0094	0.050		mg/L	50	9/22/2016 2:55:41 PM	27613
Uranium	0.044	0.00087	0.0025	*	mg/L	5	9/22/2016 2:46:35 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000090	0.000053	0.00020	J	mg/L	1	9/22/2016 4:22:09 PM	27642
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Benzoic acid	8.5	2.6	20	J	µg/L	1	9/17/2016 3:06:35 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Bis(2-ethylhexyl)phthalate	3.2	2.6	10	J	µg/L	1	9/17/2016 3:06:35 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 3:06:35 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 3:06:35 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 3:06:35 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 3:06:35 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 3:06:35 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Di-n-octyl phthalate	ND	2.0	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 3:06:35 PM	27489

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-31
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 4:25:00 PM
Lab ID: 1609508-003 **Matrix:** AQUEOUS **Received Date:** 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 3:06:35 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 3:06:35 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 3:06:35 PM	27489
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 3:06:35 PM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Dimethyl phthalate	2.9	2.4	10	J	µg/L	1	9/17/2016 3:06:35 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 3:06:35 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 3:06:35 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 3:06:35 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 3:06:35 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 3:06:35 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 3:06:35 PM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 3:06:35 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 3:06:35 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 3:06:35 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 3:06:35 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 3:06:35 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 3:06:35 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 3:06:35 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 3:06:35 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 3:06:35 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 3:06:35 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 3:06:35 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 3:06:35 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 3:06:35 PM	27489

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-31
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 4:25:00 PM
Lab ID: 1609508-003 **Matrix:** AQUEOUS **Received Date:** 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 3:06:35 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 3:06:35 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 3:06:35 PM	27489
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 3:06:35 PM	27489
Surr: 2-Fluorophenol	29.9	0	15-123		%Rec	1	9/17/2016 3:06:35 PM	27489
Surr: Phenol-d5	24.2	0	15-124		%Rec	1	9/17/2016 3:06:35 PM	27489
Surr: 2,4,6-Tribromophenol	79.2	0	18.4-134		%Rec	1	9/17/2016 3:06:35 PM	27489
Surr: Nitrobenzene-d5	63.5	0	28.8-134		%Rec	1	9/17/2016 3:06:35 PM	27489
Surr: 2-Fluorobiphenyl	60.5	0	35.9-125		%Rec	1	9/17/2016 3:06:35 PM	27489
Surr: 4-Terphenyl-d14	36.6	0	15-146		%Rec	1	9/17/2016 3:06:35 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	0.77	0.096	1.0	J	µg/L	1	9/13/2016 7:59:46 PM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
Methyl tert-butyl ether (MTBE)	63	0.21	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1,2-Dichloroethane (EDC)	24	0.12	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
Acetone	ND	4.9	10		µg/L	1	9/13/2016 7:59:46 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 7:59:46 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 7:59:46 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
Chloroform	0.29	0.089	1.0	J	µg/L	1	9/13/2016 7:59:46 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
cis-1,2-DCE	1.4	0.12	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 7:59:46 PM	R37165

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-31
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 4:25:00 PM
Lab ID: 1609508-003 **Matrix:** AQUEOUS **Received Date:** 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1,1-Dichloroethane	33	0.11	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1,1-Dichloroethene	69	0.11	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 7:59:46 PM	R37165
Isopropylbenzene	1.6	0.10	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 7:59:46 PM	R37165
Methylene Chloride	0.86	0.19	3.0	J	µg/L	1	9/13/2016 7:59:46 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
sec-Butylbenzene	0.66	0.12	1.0	J	µg/L	1	9/13/2016 7:59:46 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1,1,1-Trichloroethane	5.6	0.091	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1,1,2-Trichloroethane	2.4	0.13	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
Trichloroethene (TCE)	3.8	0.18	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 7:59:46 PM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 7:59:46 PM	R37165
Surr: 1,2-Dichloroethane-d4	98.4	0	70-130		%Rec	1	9/13/2016 7:59:46 PM	R37165
Surr: 4-Bromofluorobenzene	98.7	0	70-130		%Rec	1	9/13/2016 7:59:46 PM	R37165

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-31
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 4:25:00 PM
Lab ID: 1609508-003 **Matrix:** AQUEOUS **Received Date:** 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: Dibromofluoromethane	101	0	70-130		%Rec	1	9/13/2016 7:59:46 PM	R37165
Surr: Toluene-d8	98.2	0	70-130		%Rec	1	9/13/2016 7:59:46 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	0.23	0.015	0.050		mg/L	1	9/13/2016 7:59:46 PM	G37165
Surr: BFB	98.3	0	70-130		%Rec	1	9/13/2016 7:59:46 PM	G37165

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-40
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 5:30:00 PM
Lab ID: 1609508-004 **Matrix:** AQUEOUS **Received Date:** 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/13/2016 6:20:03 PM	27473
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 6:20:03 PM	27473
Surr: DNOP	128	0	77.1-144		%Rec	1	9/13/2016 6:20:03 PM	27473
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	1.0	2.0		mg/L	20	9/13/2016 3:06:30 AM	A37143
Chloride	5300	25	250		mg/L	500	9/24/2016 2:52:54 AM	A37467
Bromide	1.6	0.87	2.0	J	mg/L	20	9/13/2016 3:06:30 AM	A37143
Phosphorus, Orthophosphate (As P)	3.6	1.5	10	JH	mg/L	20	9/13/2016 3:06:30 AM	A37143
Sulfate	460	2.8	10		mg/L	20	9/13/2016 3:06:30 AM	A37143
Nitrate+Nitrite as N	ND	1.8	4.0		mg/L	20	9/24/2016 4:32:12 AM	A37467
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.11	0.0013	0.0020		mg/L	1	9/23/2016 5:33:35 PM	A37443
Cadmium	ND	0.00075	0.0020		mg/L	1	9/23/2016 5:33:35 PM	A37443
Calcium	400	2.5	5.0		mg/L	5	9/23/2016 5:43:12 PM	A37443
Chromium	ND	0.0018	0.0060		mg/L	1	9/23/2016 5:33:35 PM	A37443
Copper	ND	0.0040	0.0060		mg/L	1	9/23/2016 5:33:35 PM	A37443
Iron	0.11	0.020	0.020		mg/L	1	9/23/2016 5:33:35 PM	A37443
Magnesium	76	0.50	1.0		mg/L	1	9/23/2016 5:33:35 PM	A37443
Manganese	0.052	0.00032	0.0020	*	mg/L	1	9/23/2016 5:33:35 PM	A37443
Potassium	9.0	0.50	1.0		mg/L	1	9/23/2016 5:33:35 PM	A37443
Silver	ND	0.0028	0.0050		mg/L	1	9/23/2016 5:33:35 PM	A37443
Sodium	2800	25	50		mg/L	50	9/29/2016 2:27:38 PM	E37552
Zinc	0.0031	0.0028	0.010	J	mg/L	1	10/12/2016 11:14:33 PM	A37917
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.31	0.00079	0.0020		mg/L	1	10/3/2016 6:04:12 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 6:04:12 PM	27613
Chromium	0.0053	0.0027	0.0060	J	mg/L	1	10/3/2016 6:04:12 PM	27613
Copper	0.0057	0.0030	0.0060	J	mg/L	1	10/3/2016 6:04:12 PM	27613
Iron	10	0.40	0.40	*	mg/L	20	10/3/2016 6:32:23 PM	27613
Manganese	0.49	0.00027	0.0020	*	mg/L	1	10/3/2016 6:04:12 PM	27613
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 6:04:12 PM	27613
Zinc	0.043	0.0027	0.010		mg/L	1	10/3/2016 6:04:12 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0023	0.00069	0.0050	J	mg/L	5	9/22/2016 8:19:44 PM	B37425
Lead	ND	0.00084	0.0025		mg/L	5	9/22/2016 8:19:44 PM	B37425
Selenium	0.0096	0.0042	0.020	J	mg/L	20	9/22/2016 8:24:53 PM	B37425
Uranium	0.059	0.00026	0.0025	*	mg/L	5	9/22/2016 8:19:44 PM	B37425

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-40
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 5:30:00 PM
Lab ID: 1609508-004 **Matrix:** AQUEOUS **Received Date:** 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0045	0.0011	0.0050	J	mg/L	5	9/22/2016 2:58:42 PM	27613
Lead	0.029	0.00041	0.0025	*	mg/L	5	9/22/2016 2:58:42 PM	27613
Selenium	0.013	0.0094	0.050	J	mg/L	50	9/22/2016 3:01:43 PM	27613
Uranium	0.059	0.00087	0.0025	*	mg/L	5	9/22/2016 2:58:42 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.00012	0.000053	0.00020	J	mg/L	1	9/22/2016 4:24:13 PM	27642
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Benzoic acid	8.6	2.6	20	J	µg/L	1	9/17/2016 3:34:23 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Bis(2-ethylhexyl)phthalate	3.3	2.6	10	J	µg/L	1	9/17/2016 3:34:23 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 3:34:23 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 3:34:23 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 3:34:23 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 3:34:23 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 3:34:23 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Di-n-octyl phthalate	3.3	2.0	10	J	µg/L	1	9/17/2016 3:34:23 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 3:34:23 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 3:34:23 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 3:34:23 PM	27489

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-40
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 5:30:00 PM
Lab ID: 1609508-004 **Matrix:** AQUEOUS **Received Date:** 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 3:34:23 PM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/17/2016 3:34:23 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 3:34:23 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 3:34:23 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 3:34:23 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 3:34:23 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 3:34:23 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 3:34:23 PM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 3:34:23 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 3:34:23 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 3:34:23 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 3:34:23 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 3:34:23 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 3:34:23 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 3:34:23 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 3:34:23 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 3:34:23 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 3:34:23 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 3:34:23 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 3:34:23 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 3:34:23 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 3:34:23 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 3:34:23 PM	27489

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-40
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 5:30:00 PM
Lab ID: 1609508-004 **Matrix:** AQUEOUS **Received Date:** 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 3:34:23 PM	27489
Surr: 2-Fluorophenol	11.9	0	15-123	S	%Rec	1	9/17/2016 3:34:23 PM	27489
Surr: Phenol-d5	30.5	0	15-124		%Rec	1	9/17/2016 3:34:23 PM	27489
Surr: 2,4,6-Tribromophenol	15.8	0	18.4-134	S	%Rec	1	9/17/2016 3:34:23 PM	27489
Surr: Nitrobenzene-d5	73.2	0	28.8-134		%Rec	1	9/17/2016 3:34:23 PM	27489
Surr: 2-Fluorobiphenyl	63.6	0	35.9-125		%Rec	1	9/17/2016 3:34:23 PM	27489
Surr: 4-Terphenyl-d14	46.8	0	15-146		%Rec	1	9/17/2016 3:34:23 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Toluene	ND	0.12	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Naphthalene	ND	0.093	2.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Acetone	ND	4.9	10		µg/L	1	9/13/2016 8:28:27 PM	R37165
Bromobenzene	ND	0.098	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Bromoform	ND	0.10	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Bromomethane	ND	0.78	3.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
2-Butanone	ND	0.74	10		µg/L	1	9/13/2016 8:28:27 PM	R37165
Carbon disulfide	ND	0.60	10		µg/L	1	9/13/2016 8:28:27 PM	R37165
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Chloroethane	ND	0.19	2.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Chloroform	ND	0.089	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Chloromethane	ND	0.21	3.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Dibromomethane	ND	0.12	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-40
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 5:30:00 PM
Lab ID: 1609508-004 **Matrix:** AQUEOUS **Received Date:** 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
1,1-Dichloroethane	0.65	0.11	1.0	J	µg/L	1	9/13/2016 8:28:27 PM	R37165
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
2-Hexanone	ND	0.84	10		µg/L	1	9/13/2016 8:28:27 PM	R37165
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/13/2016 8:28:27 PM	R37165
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Styrene	ND	0.11	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/13/2016 8:28:27 PM	R37165
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/13/2016 8:28:27 PM	R37165
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	9/13/2016 8:28:27 PM	R37165
Surr: 4-Bromofluorobenzene	98.8	0	70-130		%Rec	1	9/13/2016 8:28:27 PM	R37165
Surr: Dibromofluoromethane	105	0	70-130		%Rec	1	9/13/2016 8:28:27 PM	R37165
Surr: Toluene-d8	93.3	0	70-130		%Rec	1	9/13/2016 8:28:27 PM	R37165
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-40
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016 5:30:00 PM
Lab ID: 1609508-004 **Matrix:** AQUEOUS **Received Date:** 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/13/2016 8:28:27 PM	G37165
Surr: BFB	97.6	0	70-130		%Rec	1	9/13/2016 8:28:27 PM	G37165

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP02
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016
Lab ID: 1609508-005
Matrix: AQUEOUS
Received Date: 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	0.0050	0.0033	0.010	J	µg/L	1	9/21/2016 8:18:33 PM	27623
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/13/2016 6:41:45 PM	27473
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/13/2016 6:41:45 PM	27473
Surr: DNOP	128	0	77.1-144		%Rec	1	9/13/2016 6:41:45 PM	27473
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.050	0.10		mg/L	1	9/13/2016 3:18:55 AM	A37143
Chloride	920	5.1	50		mg/L	100	9/24/2016 3:05:19 AM	A37467
Bromide	1.3	0.044	0.10		mg/L	1	9/13/2016 3:18:55 AM	A37143
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/13/2016 3:18:55 AM	A37143
Sulfate	75	2.8	10		mg/L	20	9/13/2016 3:31:19 AM	A37143
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/24/2016 4:44:36 AM	A37467
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.14	0.0013	0.0020		mg/L	1	9/23/2016 5:45:11 PM	A37443
Cadmium	ND	0.00075	0.0020		mg/L	1	9/23/2016 5:45:11 PM	A37443
Calcium	170	2.5	5.0		mg/L	5	9/23/2016 5:47:10 PM	A37443
Chromium	ND	0.0018	0.0060		mg/L	1	9/23/2016 5:45:11 PM	A37443
Copper	ND	0.0040	0.0060		mg/L	1	9/23/2016 5:45:11 PM	A37443
Iron	ND	0.020	0.020		mg/L	1	9/23/2016 5:45:11 PM	A37443
Magnesium	34	0.50	1.0		mg/L	1	9/23/2016 5:45:11 PM	A37443
Manganese	0.036	0.00032	0.0020		mg/L	1	9/23/2016 5:45:11 PM	A37443
Potassium	1.8	0.50	1.0		mg/L	1	9/23/2016 5:45:11 PM	A37443
Silver	ND	0.0028	0.0050		mg/L	1	9/23/2016 5:45:11 PM	A37443
Sodium	560	10	20		mg/L	20	9/29/2016 2:29:32 PM	E37552
Zinc	ND	0.0028	0.010		mg/L	1	10/12/2016 11:16:29 PM	A37917
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.17	0.00079	0.0020		mg/L	1	10/3/2016 6:07:40 PM	27613
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 6:07:40 PM	27613
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 6:07:40 PM	27613
Copper	ND	0.0030	0.0060		mg/L	1	10/3/2016 6:07:40 PM	27613
Iron	1.6	0.10	0.10	*	mg/L	5	10/3/2016 6:09:24 PM	27613
Manganese	0.082	0.00027	0.0020	*	mg/L	1	10/3/2016 6:07:40 PM	27613
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 6:07:40 PM	27613
Zinc	0.011	0.0027	0.010		mg/L	1	10/3/2016 6:07:40 PM	27613
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0022	0.00069	0.0050	J	mg/L	5	9/22/2016 8:30:01 PM	B37425
Lead	0.0010	0.00017	0.00050		mg/L	1	9/21/2016 10:07:12 PM	B37386

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP02
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016
Lab ID: 1609508-005
Matrix: AQUEOUS
Received Date: 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Selenium	0.0072	0.0011	0.0050		mg/L	5	9/22/2016 8:30:01 PM	B37425
Uranium	0.040	0.00026	0.0025	*	mg/L	5	9/22/2016 8:30:01 PM	B37425
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0027	0.0011	0.0050	J	mg/L	5	9/22/2016 3:04:43 PM	27613
Lead	0.0033	0.000081	0.00050		mg/L	1	9/21/2016 6:01:18 PM	27613
Selenium	0.0070	0.0037	0.020	J	mg/L	20	9/22/2016 3:07:44 PM	27613
Uranium	0.041	0.00087	0.0025	*	mg/L	5	9/22/2016 3:04:43 PM	27613
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000088	0.000053	0.00020	J	mg/L	1	9/22/2016 4:26:18 PM	27642
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Benzoic acid	6.6	2.6	20	J	µg/L	1	9/17/2016 4:02:12 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Bis(2-ethylhexyl)phthalate	ND	2.6	10		µg/L	1	9/17/2016 4:02:12 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 4:02:12 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 4:02:12 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 4:02:12 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 4:02:12 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 4:02:12 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Di-n-octyl phthalate	3.3	2.0	10	J	µg/L	1	9/17/2016 4:02:12 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 4:02:12 PM	27489

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP02
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016
Lab ID: 1609508-005
Matrix: AQUEOUS
Received Date: 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 4:02:12 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 4:02:12 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 4:02:12 PM	27489
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 4:02:12 PM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Dimethyl phthalate	2.9	2.4	10	J	µg/L	1	9/17/2016 4:02:12 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 4:02:12 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 4:02:12 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 4:02:12 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 4:02:12 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 4:02:12 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 4:02:12 PM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 4:02:12 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 4:02:12 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 4:02:12 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 4:02:12 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 4:02:12 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 4:02:12 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 4:02:12 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 4:02:12 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 4:02:12 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 4:02:12 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 4:02:12 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 4:02:12 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 4:02:12 PM	27489

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP02
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016
Lab ID: 1609508-005
Matrix: AQUEOUS
Received Date: 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 4:02:12 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 4:02:12 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 4:02:12 PM	27489
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 4:02:12 PM	27489
Surr: 2-Fluorophenol	24.4	0	15-123		%Rec	1	9/17/2016 4:02:12 PM	27489
Surr: Phenol-d5	22.2	0	15-124		%Rec	1	9/17/2016 4:02:12 PM	27489
Surr: 2,4,6-Tribromophenol	62.7	0	18.4-134		%Rec	1	9/17/2016 4:02:12 PM	27489
Surr: Nitrobenzene-d5	44.7	0	28.8-134		%Rec	1	9/17/2016 4:02:12 PM	27489
Surr: 2-Fluorobiphenyl	42.2	0	35.9-125		%Rec	1	9/17/2016 4:02:12 PM	27489
Surr: 4-Terphenyl-d14	38.4	0	15-146		%Rec	1	9/17/2016 4:02:12 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	0.56	0.096	1.0	J	µg/L	1	9/14/2016 12:26:34 PM	R37199
Toluene	ND	0.12	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
Methyl tert-butyl ether (MTBE)	86	0.21	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
1,2-Dichloroethane (EDC)	21	0.12	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
Naphthalene	ND	0.093	2.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
Acetone	ND	4.9	10		µg/L	1	9/14/2016 12:26:34 PM	R37199
Bromobenzene	ND	0.098	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
Bromoform	ND	0.10	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
Bromomethane	ND	0.78	3.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
2-Butanone	ND	0.74	10		µg/L	1	9/14/2016 12:26:34 PM	R37199
Carbon disulfide	ND	0.60	10		µg/L	1	9/14/2016 12:26:34 PM	R37199
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
Chloroethane	ND	0.19	2.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
Chloroform	0.42	0.089	1.0	J	µg/L	1	9/14/2016 12:26:34 PM	R37199
Chloromethane	ND	0.21	3.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
cis-1,2-DCE	1.7	0.12	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/14/2016 12:26:34 PM	R37199

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP02
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016
Lab ID: 1609508-005
Matrix: AQUEOUS
Received Date: 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
Dibromomethane	ND	0.12	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
1,1-Dichloroethane	30	0.11	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
1,1-Dichloroethene	41	1.1	10		µg/L	10	9/14/2016 11:00:04 PM	R37199
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
2-Hexanone	ND	0.84	10		µg/L	1	9/14/2016 12:26:34 PM	R37199
Isopropylbenzene	0.68	0.10	1.0	J	µg/L	1	9/14/2016 12:26:34 PM	R37199
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/14/2016 12:26:34 PM	R37199
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
sec-Butylbenzene	0.18	0.12	1.0	J	µg/L	1	9/14/2016 12:26:34 PM	R37199
Styrene	ND	0.11	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
1,1,1-Trichloroethane	4.5	0.091	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
1,1,2-Trichloroethane	1.9	0.13	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
Trichloroethene (TCE)	3.8	0.18	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/14/2016 12:26:34 PM	R37199
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/14/2016 12:26:34 PM	R37199
Surr: 1,2-Dichloroethane-d4	107	0	70-130		%Rec	1	9/14/2016 12:26:34 PM	R37199
Surr: 4-Bromofluorobenzene	96.9	0	70-130		%Rec	1	9/14/2016 12:26:34 PM	R37199

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP02
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/8/2016
Lab ID: 1609508-005
Matrix: AQUEOUS
Received Date: 9/9/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: Dibromofluoromethane	109	0	70-130		%Rec	1	9/14/2016 12:26:34 PM	R37199
Surr: Toluene-d8	94.4	0	70-130		%Rec	1	9/14/2016 12:26:34 PM	R37199
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	0.15	0.015	0.050		mg/L	1	9/14/2016 12:26:34 PM	G37199
Surr: BFB	95.8	0	70-130		%Rec	1	9/14/2016 12:26:34 PM	G37199

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A37443**	RunNo: **37443**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164050** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A37443**	RunNo: **37443**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164051** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.8	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.1	85	115			
Calcium	54	1.0	50.00	0	109	85	115			
Chromium	0.48	0.0060	0.5000	0	95.4	85	115			
Copper	0.47	0.0060	0.5000	0	93.6	85	115			
Iron	0.48	0.020	0.5000	0	96.4	85	115			
Magnesium	55	1.0	50.00	0	109	85	115			
Manganese	0.47	0.0020	0.5000	0	93.4	85	115			
Potassium	53	1.0	50.00	0	105	85	115			
Silver	0.096	0.0050	0.1000	0	96.1	85	115			
Sodium	54	1.0	50.00	0	108	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A37443**	RunNo: **37443**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164052** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0025	0.0020	0.002000	0	125	50	150			
Cadmium	0.0023	0.0020	0.002000	0	116	50	150			
Calcium	0.59	1.0	0.5000	0	118	50	150			J
Chromium	0.0064	0.0060	0.006000	0	108	50	150			
Copper	0.0065	0.0060	0.006000	0	108	50	150			
Magnesium	0.55	1.0	0.5000	0	111	50	150			J

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A37443**	RunNo: **37443**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164052** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	0.0024	0.0020	0.002000	0	123	50	150			
Potassium	0.54	1.0	0.5000	0	109	50	150			J
Silver	0.0053	0.0050	0.005000	0	106	50	150			
Sodium	0.56	1.0	0.5000	0	111	50	150			J

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A37443**	RunNo: **37443**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164069** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.022	0.020	0.02000	0	112	50	150			

Sample ID **1609508-001EMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **FB090816**	Batch ID: **A37443**	RunNo: **37443**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164236** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	70	130			
Cadmium	0.52	0.0020	0.5000	0	104	70	130			
Calcium	52	1.0	50.00	0	105	70	130			
Chromium	0.51	0.0060	0.5000	0	101	70	130			
Copper	0.51	0.0060	0.5000	0	102	70	130			
Iron	0.49	0.020	0.5000	0	98.9	70	130			
Magnesium	53	1.0	50.00	0	105	70	130			
Manganese	0.49	0.0020	0.5000	0	98.8	70	130			
Potassium	51	1.0	50.00	0	102	70	130			
Silver	0.10	0.0050	0.1000	0	101	70	130			
Sodium	52	1.0	50.00	0.9111	103	70	130			

Sample ID **1609508-001EMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **FB090816**	Batch ID: **A37443**	RunNo: **37443**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164237** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	103	70	130	1.48	20	
Cadmium	0.53	0.0020	0.5000	0	105	70	130	0.718	20	
Calcium	53	1.0	50.00	0	105	70	130	0.504	20	
Chromium	0.51	0.0060	0.5000	0	102	70	130	0.954	20	
Copper	0.51	0.0060	0.5000	0	102	70	130	0.163	20	
Iron	0.50	0.020	0.5000	0	99.1	70	130	0.249	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**1609508-001EMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**FB090816**	Batch ID:	**A37443**		RunNo:	**37443**				
Prep Date:		Analysis Date:	**9/23/2016**		SeqNo:	**1164237**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	53	1.0	50.00	0	105	70	130	0.101	20	
Manganese	0.50	0.0020	0.5000	0	100	70	130	1.39	20	
Potassium	51	1.0	50.00	0	102	70	130	0.261	20	
Silver	0.10	0.0050	0.1000	0	101	70	130	0.842	20	
Sodium	52	1.0	50.00	0.9111	102	70	130	0.362	20	

Sample ID	**MB-E**	SampType:	**MBLK**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**PBW**	Batch ID:	**E37552**		RunNo:	**37552**				
Prep Date:		Analysis Date:	**9/29/2016**		SeqNo:	**1169123**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	**LCS-E**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**LCSW**	Batch ID:	**E37552**		RunNo:	**37552**				
Prep Date:		Analysis Date:	**9/29/2016**		SeqNo:	**1169127**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	49	1.0	50.00	0	98.6	85	115			
Zinc	0.49	0.010	0.5000	0	97.6	85	115			

Sample ID	**LLLCS-E**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**BatchQC**	Batch ID:	**E37552**		RunNo:	**37552**				
Prep Date:		Analysis Date:	**9/29/2016**		SeqNo:	**1169128**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	0.50	1.0	0.5000	0	100	50	150			J
Zinc	0.0050	0.010	0.005000	0	101	50	150			J

Sample ID	**1609508-001EMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**FB090816**	Batch ID:	**E37552**		RunNo:	**37552**				
Prep Date:		Analysis Date:	**9/29/2016**		SeqNo:	**1169194**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.47	0.010	0.5000	0	94.3	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**1609508-001EMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**FB090816**	Batch ID:	**E37552**		RunNo:	**37552**				
Prep Date:		Analysis Date:	**9/29/2016**		SeqNo:	**1169195**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.46	0.010	0.5000	0	92.9	70	130	1.49	20	

Sample ID	**MB-A**	SampType:	**MBLK**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**PBW**	Batch ID:	**A37917**		RunNo:	**37917**				
Prep Date:		Analysis Date:	**10/12/2016**		SeqNo:	**1181515**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Sample ID	**LLLCS-A**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**BatchQC**	Batch ID:	**A37917**		RunNo:	**37917**				
Prep Date:		Analysis Date:	**10/12/2016**		SeqNo:	**1181516**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.0050	0.010	0.005000	0	100	50	150			J

Sample ID	**LCS-A**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**LCSW**	Batch ID:	**A37917**		RunNo:	**37917**				
Prep Date:		Analysis Date:	**10/12/2016**		SeqNo:	**1181517**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.46	0.010	0.5000	0	93.0	85	115			

Sample ID	**1609508-003FMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**MKTF-31**	Batch ID:	**A37917**		RunNo:	**37917**				
Prep Date:		Analysis Date:	**10/12/2016**		SeqNo:	**1181524**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.45	0.010	0.5000	0	91.0	70	130			

Sample ID	**1609508-003FMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**MKTF-31**	Batch ID:	**A37917**		RunNo:	**37917**				
Prep Date:		Analysis Date:	**10/12/2016**		SeqNo:	**1181525**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.46	0.010	0.5000	0	91.5	70	130	0.594	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **MB-27613**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **27613**	RunNo: **37369**
Prep Date: **9/20/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161052** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	0.00038	0.0020								J
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-27613**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **27613**	RunNo: **37369**
Prep Date: **9/20/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161053** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.6	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.48	0.0060	0.5000	0	96.6	85	115			
Copper	0.48	0.0060	0.5000	0	95.5	85	115			
Iron	0.49	0.020	0.5000	0	97.6	85	115			
Manganese	0.48	0.0020	0.5000	0	95.7	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			
Zinc	0.48	0.010	0.5000	0	95.9	85	115			

Sample ID **LLLCS-27613**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **27613**	RunNo: **37369**
Prep Date: **9/20/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161054** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0024	0.0020	0.002000	0	121	50	150			
Cadmium	0.0020	0.0020	0.002000	0	101	50	150			
Chromium	0.0062	0.0060	0.006000	0	104	50	150			
Copper	0.0053	0.0060	0.006000	0	88.2	50	150			J
Manganese	0.0020	0.0020	0.002000	0	102	50	150			
Silver	0.0051	0.0050	0.005000	0	102	50	150			
Zinc	0.0054	0.010	0.005000	0	109	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**LLLCS-27613**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**BatchQC**	Batch ID:	**27613**		RunNo:	**37369**				
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**		SeqNo:	**1161124**	Units:	**mg/L**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.020	0.020	0.02000	0	102	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B37386**	RunNo: **37386**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1162018** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	93.8	85	115			
Lead	0.012	0.00050	0.01250	0	97.0	85	115			
Selenium	0.025	0.0010	0.02500	0	99.9	85	115			
Uranium	0.013	0.00050	0.01250	0	103	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37386**	RunNo: **37386**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1162021** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00098	0.0010	0.001000	0	98.2	50	150			J
Lead	0.00050	0.00050	0.0005000	0	100	50	150			
Selenium	0.00098	0.0010	0.001000	0	97.5	50	150			J
Uranium	0.00051	0.00050	0.0005000	0	101	50	150			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B37386**	RunNo: **37386**
Prep Date:	Analysis Date: **9/21/2016**	SeqNo: **1162023** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B37425**	RunNo: **37425**
Prep Date:	Analysis Date: **9/22/2016**	SeqNo: **1163315** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	90.1	85	115			
Lead	0.012	0.00050	0.01250	0	93.2	85	115			
Selenium	0.023	0.0010	0.02500	0	90.3	85	115			
Uranium	0.011	0.00050	0.01250	0	90.9	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37425**	RunNo: **37425**
Prep Date:	Analysis Date: **9/22/2016**	SeqNo: **1163316** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37425**	RunNo: **37425**
Prep Date:	Analysis Date: **9/22/2016**	SeqNo: **1163316** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00091	0.0010	0.001000	0	91.5	50	150			J
Lead	0.00052	0.00050	0.0005000	0	104	50	150			
Selenium	0.00092	0.0010	0.001000	0	91.9	50	150			J
Uranium	0.00048	0.00050	0.0005000	0	95.7	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B37425**	RunNo: **37425**
Prep Date:	Analysis Date: **9/22/2016**	SeqNo: **1163317** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**MB-27613**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**27613**	RunNo:	**37385**					
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**	SeqNo:	**1161948**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-27613**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**27613**	RunNo:	**37385**					
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**	SeqNo:	**1161951**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	91.9	85	115			
Lead	0.011	0.00050	0.01250	0	90.1	85	115			
Selenium	0.024	0.0010	0.02500	0	94.8	85	115			
Uranium	0.012	0.00050	0.01250	0	95.0	85	115			

Sample ID	**MSLLLCS-27613**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**27613**	RunNo:	**37385**					
Prep Date:	**9/20/2016**	Analysis Date:	**9/21/2016**	SeqNo:	**1161954**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	114	50	150			
Lead	0.00046	0.00050	0.0005000	0	92.7	50	150			J
Selenium	0.00097	0.0010	0.001000	0	96.7	50	150			J
Uranium	0.00046	0.00050	0.0005000	0	92.7	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**MB-27642**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**27642**	RunNo:	**37426**					
Prep Date:	**9/21/2016**	Analysis Date:	**9/22/2016**	SeqNo:	**1163344**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000071	0.00020								J

Sample ID	**LCS-27642**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**27642**	RunNo:	**37426**					
Prep Date:	**9/21/2016**	Analysis Date:	**9/22/2016**	SeqNo:	**1163345**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A37143**	RunNo: **37143**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151882** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A37143**	RunNo: **37143**
Prep Date:	Analysis Date: **9/12/2016**	SeqNo: **1151883** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	97.3	90	110			
Chloride	4.5	0.50	5.000	0	90.3	90	110			
Bromide	2.3	0.10	2.500	0	91.1	90	110			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	94.2	90	110			
Sulfate	9.1	0.50	10.00	0	91.0	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A37467**	RunNo: **37467**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164862** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	0.096	0.50								J
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A37467**	RunNo: **37467**
Prep Date:	Analysis Date: **9/24/2016**	SeqNo: **1164863** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	91.4	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	96.1	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **MB-27623**	SampType: **MBLK**	TestCode: **EPA Method 8011/504.1: EDB**
Client ID: **PBW**	Batch ID: **27623**	RunNo: **37388**
Prep Date: **9/21/2016**	Analysis Date: **9/21/2016**	SeqNo: **1162067** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID **LCS-27623**	SampType: **LCS**	TestCode: **EPA Method 8011/504.1: EDB**
Client ID: **LCSW**	Batch ID: **27623**	RunNo: **37388**
Prep Date: **9/21/2016**	Analysis Date: **9/21/2016**	SeqNo: **1162073** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.11	0.010	0.1000	0	114	70	130			

Sample ID **LCSD-27623**	SampType: **LCSD**	TestCode: **EPA Method 8011/504.1: EDB**
Client ID: **LCSS02**	Batch ID: **27623**	RunNo: **37388**
Prep Date: **9/21/2016**	Analysis Date: **9/21/2016**	SeqNo: **1162075** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.12	0.010	0.1000	0	119	70	130	4.13	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **LCS-27435**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **27435**	RunNo: **37115**
Prep Date: **9/12/2016**	Analysis Date: **9/12/2016**	SeqNo: **1151345** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.6	1.0	5.000	0	111	63.2	155			
Surr: DNOP	0.59		0.5000		119	77.1	144			

Sample ID **MB-27435**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **27435**	RunNo: **37115**
Prep Date: **9/12/2016**	Analysis Date: **9/12/2016**	SeqNo: **1151346** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.3		1.000		127	77.1	144			

Sample ID **1609508-003CMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **MKTF-31**	Batch ID: **27473**	RunNo: **37139**
Prep Date: **9/13/2016**	Analysis Date: **9/13/2016**	SeqNo: **1152384** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.6	1.0	5.000	0	113	79.6	148			
Surr: DNOP	0.61		0.5000		123	77.1	144			

Sample ID **1609508-003CMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **MKTF-31**	Batch ID: **27473**	RunNo: **37139**
Prep Date: **9/13/2016**	Analysis Date: **9/13/2016**	SeqNo: **1152385** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	116	79.6	148	3.16	20	
Surr: DNOP	0.62		0.5000		125	77.1	144	0	0	

Sample ID **LCS-27473**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **27473**	RunNo: **37139**
Prep Date: **9/13/2016**	Analysis Date: **9/13/2016**	SeqNo: **1152390** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.4	1.0	5.000	0	108	63.2	155			
Surr: DNOP	0.60		0.5000		120	77.1	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **MB-27473**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **27473**	RunNo: **37139**
Prep Date: **9/13/2016**	Analysis Date: **9/13/2016**	SeqNo: **1152391** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.3		1.000		125	77.1	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152880** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.1	70	130			
Toluene	18	1.0	20.00	0	92.2	70	130			
Chlorobenzene	17	1.0	20.00	0	86.5	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.1	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.0	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		99.9	70	130			
Surr: Toluene-d8	9.6		10.00		95.5	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152881** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	0.10								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	0.10								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	0.10								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	0.10								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152881** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	0.51	0.10								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152881** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.7	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.8		10.00		97.6	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154193** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154193** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154193** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	9.7		10.00		96.7	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	9.3		10.00		93.3	70	130			

Sample ID **100ng lcsb**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154194** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	113	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	19	1.0	20.00	0	95.8	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	106	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	106	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.0	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	9.6		10.00		95.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **mb-27489**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **27489**	RunNo: **37269**
Prep Date: **9/14/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157087** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	6.6	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	5.6	10								J
Diethyl phthalate	ND	10								
Dimethyl phthalate	3.0	10								J
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	7.9	20								J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **mb-27489**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **27489**	RunNo: **37269**
Prep Date: **9/14/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157087** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	2.9	10								J
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	2.5	10								J
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	96		200.0		48.1	15	123			
Surr: Phenol-d5	82		200.0		40.8	4.13	124			
Surr: 2,4,6-Tribromophenol	140		200.0		69.0	18.4	134			
Surr: Nitrobenzene-d5	65		100.0		64.9	28.8	134			
Surr: 2-Fluorobiphenyl	57		100.0		57.0	35.9	125			
Surr: 4-Terphenyl-d14	58		100.0		58.2	15	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **lcs-27489**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **27489**	RunNo: **37269**
Prep Date: **9/14/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157090** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	72	10	100.0	0	71.6	35	113			
4-Chloro-3-methylphenol	140	10	200.0	0	71.2	40.7	114			
2-Chlorophenol	140	10	200.0	0	70.9	37.6	113			
1,4-Dichlorobenzene	56	10	100.0	0	56.2	37.7	106			
2,4-Dinitrotoluene	67	10	100.0	0	67.2	37	91			
N-Nitrosodi-n-propylamine	73	10	100.0	0	72.5	45.4	105			
4-Nitrophenol	110	10	200.0	0	52.9	33.4	104			
Pentachlorophenol	120	20	200.0	0	58.0	29.5	94.9			
Phenol	110	10	200.0	0	57.3	30.6	119			
Pyrene	62	10	100.0	0	62.4	26.2	120			
1,2,4-Trichlorobenzene	62	10	100.0	0	62.2	39.9	125			
Surr: 2-Fluorophenol	120		200.0		60.1	15	123			
Surr: Phenol-d5	130		200.0		63.9	4.13	124			
Surr: 2,4,6-Tribromophenol	150		200.0		74.4	18.4	134			
Surr: Nitrobenzene-d5	70		100.0		69.6	28.8	134			
Surr: 2-Fluorobiphenyl	67		100.0		67.2	35.9	125			
Surr: 4-Terphenyl-d14	48		100.0		48.4	15	146			

Sample ID **mb-27565**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **27565**	RunNo: **37516**
Prep Date: **9/19/2016**	Analysis Date: **9/27/2016**	SeqNo: **1166842** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	67		200.0		33.4	15	123			
Surr: Phenol-d5	49		200.0		24.4	4.13	124			
Surr: 2,4,6-Tribromophenol	100		200.0		50.7	18.4	134			
Surr: Nitrobenzene-d5	38		100.0		37.6	28.8	134			
Surr: 2-Fluorobiphenyl	28		100.0		28.3	35.9	125			S
Surr: 4-Terphenyl-d14	53		100.0		53.5	15	146			

Sample ID **lcs-27565**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **27565**	RunNo: **37516**
Prep Date: **9/19/2016**	Analysis Date: **9/27/2016**	SeqNo: **1166843** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	140		200.0		67.8	15	123			
Surr: Phenol-d5	140		200.0		68.6	4.13	124			
Surr: 2,4,6-Tribromophenol	140		200.0		67.8	18.4	134			
Surr: Nitrobenzene-d5	63		100.0		63.1	28.8	134			
Surr: 2-Fluorobiphenyl	62		100.0		62.3	35.9	125			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**lcs-27565**	SampType:	**LCS**	TestCode:	**EPA Method 8270C: Semivolatiles**
Client ID:	**LCSW**	Batch ID:	**27565**	RunNo:	**37516**
Prep Date:	**9/19/2016**	Analysis Date:	**9/27/2016**	SeqNo:	**1166843** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	55		100.0		55.5	15	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152730** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.52	0.050	0.5000	0	103	75.4	118			
Surr: BFB	10		10.00		100	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G37165**	RunNo: **37165**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1152731** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	10		10.00		99.8	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154472** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.4		10.00		94.1	70	130			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154473** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.52	0.050	0.5000	0	105	75.4	118			
Surr: BFB	10		10.00		100	70	130			

Sample ID **1609508-005a ms**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **DUP02**	Batch ID: **G37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154496** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.63	0.050	0.5000	0.1508	95.6	53.8	128			
Surr: BFB	10		10.00		99.9	70	130			

Sample ID **1609508-005a msd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **DUP02**	Batch ID: **G37199**	RunNo: **37199**
Prep Date:	Analysis Date: **9/14/2016**	SeqNo: **1154507** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609508**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**1609508-005a msd**	SampType:	**MSD**	TestCode:	**EPA Method 8015D: Gasoline Range**
Client ID:	**DUP02**	Batch ID:	**G37199**	RunNo:	**37199**
Prep Date:		Analysis Date:	**9/14/2016**	SeqNo:	**1154507** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.62	0.050	0.5000	0.1508	93.5	53.8	128	1.67	20	
Surr: BFB	9.8		10.00		98.3	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1609508 RcptNo: 1

Received by/date: IO 09/09/16

Logged By: Ashley Gallegos 9/9/2016 4:55:00 PM

Completed By: Ashley Gallegos 9/12/2016 11:38:34 AM

Reviewed By: JC 09/12/16

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☑ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
9. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
10. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☑
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
14. Is it clear what analyses were requested? Yes ☑ No ☐
15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: 15 (<2 or >12 unless noted)
Adjusted? No
Checked by: AJS

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: ____ Date ____
By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: ____
Client Instructions: ____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: WESTERN REFINING SW, INC. GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING RD GALLUP NM 87301

Phone #: 505-722-0231

Email or Fax#: CHERYL.JOHNSON@WNR.COM

QA/QC Package: Standard [X] Level 4 (Full Validation)

Accreditation: [ ] NELAP [ ] Other

EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush

Project Name: 2016 3RD QTR (MKTF)

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: [X] Yes [ ] No

Sample Temperature: 1.0°C

HEAL No. 1609508

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)		Air Bubbles (Y or N)
9/8/16	1300	WATER	FB090816	40 ML VOA-6	HCL	-001			✓							✓						
				1L AMBER-1	NEAT												✓						
				250 ML AMBER-1	NEAT				✓														
				500 ML PLASTIC-1	HNO_3														✓				
				125 ML PLASTIC-1	HNO_3													✓	✓				
				125 ML PLASTIC-1	H_2SO_4													✓					
↓	↓	↓	↓	500 ML PLASTIC-1	NEAT														✓				

Date:	Time:	Relinquished by:	Received by:	Date	Time
9/9/16	0725			9/9/16	1500
Date:	Time:	Relinquished by:	Received by:	Date	Time
	1655			9/9/16	1655

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard ☒ Level 4 (Full Validation)
Accreditation: NELAP ☐ Other
EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☑ Yes ☐ No
Sample Temperature: 1.0°

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
9/8/16	1500 1300	WATER	MKTF-28	40 ML VOA-6	HCL	1609508 -002
				1 L AMBER-2	NEAT	
				250 ML AMBER-1	NEAT	
				500 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)		Air Bubbles (Y or N)
		✓							✓						
										✓					
		✓													
												✓			
											✓	✓			
											✓				
												✓			

Date: 9/9/16 Time: 0725 Relinquished by:
Received by: Date: 9/9/16 Time: 1500

Date: 9/9/16 Time: 1655 Relinquished by:
Received by: Date: 9/9/16 Time: 1655

Remarks: EXTRA 1 L AMBER INCLUDED WITH THIS SAMPLE

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: WESTERN REFINING SW, INC.

GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING RD GALLUP, NM 87301

Phone #: 505-722-0231

Email or Fax#: CHERYL.JOHNSON@WNR.COM

QA/QC Package: Standard [X] Level 4 (Full Validation)

Accreditation: NELAP [ ] Other

EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush

Project Name: 2016 3RD QTR (MKTF)

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: [X] Yes [ ] No

Sample Temperature: 1.0°C

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609508	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8011 (1,2-DIBROMOMETHANE)	MAJOR CATIONS / ANIONS	WQCC METALS (TOTAL & DISSOLVED)	Air Bubbles (Y or N)
9/8/16	1625	WATER	MKTF-31	40 ML VOA-6	HCL	-003			✓							✓					
				40ML VOA-3	HCL													✓			
				1 L AMBER-1	NEAT												✓				
				250ML AMBER-1	NEAT				✓												
				500ML PLASTIC-1	HNO_3															✓	
				125 ML PLASTIC-1	HNO_3														✓	✓	
				125 ML PLASTIC-1	H_2SO_4														✓		
✓	✓	✓	✓	500 ML PLASTIC-1	NEAT															✓	

Date:	Time:	Relinquished by:	Received by:	Date	Time
9/9/16	0725			9/9/16	1500
9/9/16	1655			9/9/16	1655

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
EDD (Type) EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609508
9/8/16	1730	WATER	MKTF-40	40 ML VOA-6	HCL	-004
				1 L AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				500 ML AMBER-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS (TOTAL & DISSOLVED)		Air Bubbles (Y or N)
		✓							✓					
										✓				
		✓												
												✓		
											✓	✓		
											✓			
												✓		

Date	Time	Relinquished by:	Received by:	Date	Time
9/9/16	0725			9/9/16	1500
9/9/16	1655			9/9/16	1655

Remarks:

This [illegible] possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: WESTERN REFINING SW, INC.

GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING RD

GALLUP, NM 87301

Phone #: 505-722-0231

Email or Fax#: CHERYL.JOHNSON@WNR.COM

QA/QC Package: Standard [X] Level 4 (Full Validation)

Accreditation: NELAP [ ] Other

EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush

Project Name: 2016 3RD QTR (MKTE)

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: [✓] Yes [ ] No

Sample Temperature: 1.0 °C

HEAL No. 1609508

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
9/8/16	—	WATER	DUP02	40 ML VOA-6	HCL	-005
				40 ML VOA-3	HCL	
				1 L AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				500 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	
9/8/16	—	WATER	TRIP BLANK	40 ML VOA-2	HCL	-006

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8011 (1,2-DIBROMOMETHANE)	MAJOR CATIONS/ANIONS	WQCC METALS (TOTAL & DISSOLVED)	Air Bubbles (Y or N)
		✓							✓		✓			
										✓				
		✓											✓	
												✓	✓	
												✓		
									✓					

Date: 9/8/16 Time: 0725 Relinquished by:

Received by: Date: 9/8/16 Time: 1500

Date: 9/8/16 Time: 1655 Relinquished by:

Received by: Date: 9/9/16 Time: 1655

Remarks:

If [illegible] samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 25, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 3RD QTR (MKTF) OrderNo.: 1609601

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 13 sample(s) on 9/12/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-21
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/12/2016 8:40:00 AM
Lab ID: 1609601-001 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	3.9	0.69	1.0		mg/L	1	9/14/2016 2:26:28 PM	27491
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/14/2016 2:26:28 PM	27491
Surr: DNOP	123	0	77.1-144		%Rec	1	9/14/2016 2:26:28 PM	27491
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.25	0.50		mg/L	5	9/13/2016 7:52:26 PM	R37171
Chloride	81	0.25	2.5		mg/L	5	9/13/2016 7:52:26 PM	R37171
Bromide	1.4	0.22	0.50		mg/L	5	9/13/2016 7:52:26 PM	R37171
Phosphorus, Orthophosphate (As P)	2.6	0.38	2.5		mg/L	5	9/13/2016 7:52:26 PM	R37171
Sulfate	19	0.71	2.5		mg/L	5	9/13/2016 7:52:26 PM	R37171
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/18/2016 5:50:54 PM	R37299
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	2.5	0.0066	0.010	*	mg/L	5	9/29/2016 3:43:15 PM	F37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 3:41:30 PM	F37552
Calcium	150	2.5	5.0		mg/L	5	9/29/2016 3:43:15 PM	F37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 3:41:30 PM	F37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 3:41:30 PM	F37552
Iron	22	1.0	1.0	*	mg/L	50	10/3/2016 3:23:08 PM	B37643
Magnesium	18	0.50	1.0		mg/L	1	9/29/2016 3:41:30 PM	F37552
Manganese	3.7	0.0016	0.010	*	mg/L	5	9/29/2016 3:43:15 PM	F37552
Potassium	23	0.50	1.0		mg/L	1	9/29/2016 3:41:30 PM	F37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 3:41:30 PM	F37552
Sodium	110	2.5	5.0		mg/L	5	9/29/2016 3:43:15 PM	F37552
Zinc	0.023	0.0028	0.010		mg/L	1	9/29/2016 3:41:30 PM	F37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	2.7	0.0040	0.010	*	mg/L	5	10/3/2016 7:46:59 PM	27665
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 7:37:32 PM	27665
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 7:37:32 PM	27665
Copper	0.0064	0.0030	0.0060		mg/L	1	10/12/2016 9:03:09 PM	27933
Iron	24	1.0	1.0	*	mg/L	50	10/4/2016 4:13:55 PM	27665
Manganese	4.1	0.0014	0.010	*	mg/L	5	10/3/2016 7:46:59 PM	27665
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 7:37:32 PM	27665
Zinc	0.048	0.0027	0.010		mg/L	1	10/3/2016 7:37:32 PM	27665
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.020	0.00014	0.0010	*	mg/L	1	9/23/2016 12:12:39 PM	A37462
Lead	0.0018	0.00017	0.00050		mg/L	1	9/23/2016 12:12:39 PM	A37462
Selenium	0.0094	0.0042	0.020	J	mg/L	20	9/23/2016 2:07:22 PM	B37462
Uranium	0.00071	0.000051	0.00050		mg/L	1	9/23/2016 12:12:39 PM	A37462

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-21
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/12/2016 8:40:00 AM
Lab ID: 1609601-001 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.019	0.0011	0.0050	*	mg/L	5	9/26/2016 5:04:56 PM	27665
Lead	0.0031	0.000081	0.00050		mg/L	1	9/26/2016 1:28:31 PM	27665
Selenium	0.0085	0.0037	0.020	J	mg/L	20	9/26/2016 5:07:56 PM	27665
Uranium	0.0010	0.00017	0.00050		mg/L	1	9/26/2016 5:22:22 PM	27665
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:25:26 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	26	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Acenaphthylene	ND	24	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Aniline	ND	24	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Anthracene	ND	25	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Azobenzene	ND	27	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Benz(a)anthracene	ND	26	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Benzo(a)pyrene	ND	27	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Benzo(b)fluoranthene	ND	29	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Benzo(g,h,i)perylene	ND	26	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Benzo(k)fluoranthene	ND	30	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Benzoic acid	63	26	200	J	µg/L	1	9/17/2016 6:49:07 PM	27514
Benzyl alcohol	ND	30	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Bis(2-chloroethoxy)methane	ND	28	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Bis(2-chloroethyl)ether	ND	27	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Bis(2-chloroisopropyl)ether	ND	19	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Bis(2-ethylhexyl)phthalate	56	26	100	J	µg/L	1	9/17/2016 6:49:07 PM	27514
4-Bromophenyl phenyl ether	ND	26	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Butyl benzyl phthalate	ND	25	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Carbazole	ND	23	100		µg/L	1	9/17/2016 6:49:07 PM	27514
4-Chloro-3-methylphenol	ND	26	100		µg/L	1	9/17/2016 6:49:07 PM	27514
4-Chloroaniline	ND	27	100		µg/L	1	9/17/2016 6:49:07 PM	27514
2-Chloronaphthalene	ND	23	100		µg/L	1	9/17/2016 6:49:07 PM	27514
2-Chlorophenol	ND	22	100		µg/L	1	9/17/2016 6:49:07 PM	27514
4-Chlorophenyl phenyl ether	ND	26	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Chrysene	ND	28	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Di-n-butyl phthalate	ND	24	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Di-n-octyl phthalate	35	20	100	J	µg/L	1	9/17/2016 6:49:07 PM	27514
Dibenz(a,h)anthracene	ND	27	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Dibenzofuran	ND	25	100		µg/L	1	9/17/2016 6:49:07 PM	27514
1,2-Dichlorobenzene	ND	23	100		µg/L	1	9/17/2016 6:49:07 PM	27514
1,3-Dichlorobenzene	ND	23	100		µg/L	1	9/17/2016 6:49:07 PM	27514

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-21
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/12/2016 8:40:00 AM
Lab ID: 1609601-001 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	24	100		µg/L	1	9/17/2016 6:49:07 PM	27514
3,3´-Dichlorobenzidine	ND	24	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Diethyl phthalate	ND	27	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Dimethyl phthalate	29	24	100	J	µg/L	1	9/17/2016 6:49:07 PM	27514
2,4-Dichlorophenol	ND	23	200		µg/L	1	9/17/2016 6:49:07 PM	27514
2,4-Dimethylphenol	ND	30	100		µg/L	1	9/17/2016 6:49:07 PM	27514
4,6-Dinitro-2-methylphenol	ND	18	200		µg/L	1	9/17/2016 6:49:07 PM	27514
2,4-Dinitrophenol	ND	28	200		µg/L	1	9/17/2016 6:49:07 PM	27514
2,4-Dinitrotoluene	ND	31	100		µg/L	1	9/17/2016 6:49:07 PM	27514
2,6-Dinitrotoluene	ND	27	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Fluoranthene	ND	26	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Fluorene	ND	27	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Hexachlorobenzene	ND	26	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Hexachlorobutadiene	ND	22	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Hexachlorocyclopentadiene	ND	23	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Hexachloroethane	ND	24	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Indeno(1,2,3-cd)pyrene	ND	30	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Isophorone	ND	26	100		µg/L	1	9/17/2016 6:49:07 PM	27514
1-Methylnaphthalene	ND	29	100		µg/L	1	9/17/2016 6:49:07 PM	27514
2-Methylnaphthalene	ND	29	100		µg/L	1	9/17/2016 6:49:07 PM	27514
2-Methylphenol	ND	25	100		µg/L	1	9/17/2016 6:49:07 PM	27514
3+4-Methylphenol	420	23	100		µg/L	1	9/17/2016 6:49:07 PM	27514
N-Nitrosodi-n-propylamine	ND	24	100		µg/L	1	9/17/2016 6:49:07 PM	27514
N-Nitrosodimethylamine	ND	22	100		µg/L	1	9/17/2016 6:49:07 PM	27514
N-Nitrosodiphenylamine	ND	23	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Naphthalene	ND	26	100		µg/L	1	9/17/2016 6:49:07 PM	27514
2-Nitroaniline	ND	28	100		µg/L	1	9/17/2016 6:49:07 PM	27514
3-Nitroaniline	ND	29	100		µg/L	1	9/17/2016 6:49:07 PM	27514
4-Nitroaniline	ND	26	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Nitrobenzene	ND	28	100		µg/L	1	9/17/2016 6:49:07 PM	27514
2-Nitrophenol	ND	24	100		µg/L	1	9/17/2016 6:49:07 PM	27514
4-Nitrophenol	ND	26	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Pentachlorophenol	24	23	200	J	µg/L	1	9/17/2016 6:49:07 PM	27514
Phenanthrene	ND	26	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Phenol	80	20	100	J	µg/L	1	9/17/2016 6:49:07 PM	27514
Pyrene	ND	31	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Pyridine	ND	22	100		µg/L	1	9/17/2016 6:49:07 PM	27514
1,2,4-Trichlorobenzene	ND	26	100		µg/L	1	9/17/2016 6:49:07 PM	27514
2,4,5-Trichlorophenol	ND	22	100		µg/L	1	9/17/2016 6:49:07 PM	27514

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-21
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/12/2016 8:40:00 AM
Lab ID: 1609601-001 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	24	100		µg/L	1	9/17/2016 6:49:07 PM	27514
Surr: 2-Fluorophenol	39.7	0	15-123		%Rec	1	9/17/2016 6:49:07 PM	27514
Surr: Phenol-d5	34.4	0	15-124		%Rec	1	9/17/2016 6:49:07 PM	27514
Surr: 2,4,6-Tribromophenol	90.8	0	18.4-134		%Rec	1	9/17/2016 6:49:07 PM	27514
Surr: Nitrobenzene-d5	80.0	0	28.8-134		%Rec	1	9/17/2016 6:49:07 PM	27514
Surr: 2-Fluorobiphenyl	77.4	0	35.9-125		%Rec	1	9/17/2016 6:49:07 PM	27514
Surr: 4-Terphenyl-d14	52.6	0	15-146		%Rec	1	9/17/2016 6:49:07 PM	27514
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	9300	48	500		µg/L	500	9/15/2016 7:36:54 PM	W37240
Toluene	59	5.9	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
Ethylbenzene	480	5.6	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
Methyl tert-butyl ether (MTBE)	680	11	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
1,2,4-Trimethylbenzene	240	5.5	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
1,3,5-Trimethylbenzene	110	5.8	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
1,2-Dichloroethane (EDC)	ND	5.8	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
1,2-Dibromoethane (EDB)	ND	5.6	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
Naphthalene	30	4.6	100	J	µg/L	50	9/15/2016 2:20:43 PM	W37240
1-Methylnaphthalene	15	10	200	J	µg/L	50	9/15/2016 2:20:43 PM	W37240
2-Methylnaphthalene	14	7.9	200	J	µg/L	50	9/15/2016 2:20:43 PM	W37240
Acetone	ND	250	500		µg/L	50	9/15/2016 2:20:43 PM	W37240
Bromobenzene	ND	4.9	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
Bromodichloromethane	ND	7.0	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
Bromoform	ND	5.1	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
Bromomethane	ND	39	150		µg/L	50	9/15/2016 2:20:43 PM	W37240
2-Butanone	ND	37	500		µg/L	50	9/15/2016 2:20:43 PM	W37240
Carbon disulfide	ND	30	500		µg/L	50	9/15/2016 2:20:43 PM	W37240
Carbon Tetrachloride	ND	5.4	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
Chlorobenzene	ND	5.7	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
Chloroethane	ND	9.6	100		µg/L	50	9/15/2016 2:20:43 PM	W37240
Chloroform	ND	4.4	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
Chloromethane	ND	11	150		µg/L	50	9/15/2016 2:20:43 PM	W37240
2-Chlorotoluene	ND	20	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
4-Chlorotoluene	ND	6.4	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
cis-1,2-DCE	ND	6.2	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
cis-1,3-Dichloropropene	ND	5.3	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
1,2-Dibromo-3-chloropropane	ND	12	100		µg/L	50	9/15/2016 2:20:43 PM	W37240
Dibromochloromethane	ND	4.3	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
Dibromomethane	ND	6.0	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
1,2-Dichlorobenzene	ND	20	50		µg/L	50	9/15/2016 2:20:43 PM	W37240

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-21
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/12/2016 8:40:00 AM
Lab ID: 1609601-001
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichlorobenzene	ND	7.2	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
1,4-Dichlorobenzene	ND	7.1	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
Dichlorodifluoromethane	ND	18	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
1,1-Dichloroethane	ND	5.4	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
1,1-Dichloroethene	ND	5.4	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
1,2-Dichloropropane	ND	5.5	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
1,3-Dichloropropane	ND	7.8	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
2,2-Dichloropropane	ND	8.3	100		µg/L	50	9/15/2016 2:20:43 PM	W37240
1,1-Dichloropropene	ND	6.7	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
Hexachlorobutadiene	ND	9.9	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
2-Hexanone	ND	42	500		µg/L	50	9/15/2016 2:20:43 PM	W37240
Isopropylbenzene	8.2	5.2	50	J	µg/L	50	9/15/2016 2:20:43 PM	W37240
4-Isopropyltoluene	ND	7.0	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
4-Methyl-2-pentanone	48	21	500	J	µg/L	50	9/15/2016 2:20:43 PM	W37240
Methylene Chloride	ND	9.4	150		µg/L	50	9/15/2016 2:20:43 PM	W37240
n-Butylbenzene	ND	8.0	150		µg/L	50	9/15/2016 2:20:43 PM	W37240
n-Propylbenzene	21	6.6	50	J	µg/L	50	9/15/2016 2:20:43 PM	W37240
sec-Butylbenzene	ND	6.2	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
Styrene	ND	5.5	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
tert-Butylbenzene	ND	5.8	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
1,1,1,2-Tetrachloroethane	ND	5.6	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
1,1,2,2-Tetrachloroethane	ND	6.4	100		µg/L	50	9/15/2016 2:20:43 PM	W37240
Tetrachloroethene (PCE)	ND	7.6	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
trans-1,2-DCE	ND	20	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
trans-1,3-Dichloropropene	ND	5.2	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
1,2,3-Trichlorobenzene	ND	5.6	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
1,2,4-Trichlorobenzene	ND	6.6	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
1,1,1-Trichloroethane	ND	4.6	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
1,1,2-Trichloroethane	ND	6.4	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
Trichloroethene (TCE)	ND	8.8	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
Trichlorofluoromethane	ND	10	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
1,2,3-Trichloropropane	ND	10	100		µg/L	50	9/15/2016 2:20:43 PM	W37240
Vinyl chloride	ND	9.8	50		µg/L	50	9/15/2016 2:20:43 PM	W37240
Xylenes, Total	2000	18	75		µg/L	50	9/15/2016 2:20:43 PM	W37240
Surr: 1,2-Dichloroethane-d4	99.4	0	70-130		%Rec	50	9/15/2016 2:20:43 PM	W37240
Surr: 4-Bromofluorobenzene	96.8	0	70-130		%Rec	50	9/15/2016 2:20:43 PM	W37240
Surr: Dibromofluoromethane	105	0	70-130		%Rec	50	9/15/2016 2:20:43 PM	W37240
Surr: Toluene-d8	91.9	0	70-130		%Rec	50	9/15/2016 2:20:43 PM	W37240
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-21
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/12/2016 8:40:00 AM
Lab ID: 1609601-001 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	28	0.75	2.5		mg/L	50	9/15/2016 2:20:43 PM	G37240
Surr: BFB	94.6	0	70-130		%Rec	50	9/15/2016 2:20:43 PM	G37240

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-20
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/12/2016 9:25:00 AM
Lab ID: 1609601-002 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	8.7	0.69	1.0		mg/L	1	9/14/2016 3:31:51 PM	27491
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/14/2016 3:31:51 PM	27491
Surr: DNOP	133	0	77.1-144		%Rec	1	9/14/2016 3:31:51 PM	27491
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	2.1	0.25	0.50		mg/L	5	9/13/2016 8:17:15 PM	R37171
Chloride	370	2.5	25		mg/L	50	9/23/2016 5:16:24 PM	R37469
Bromide	0.99	0.22	0.50		mg/L	5	9/13/2016 8:17:15 PM	R37171
Phosphorus, Orthophosphate (As P)	3.1	0.38	2.5		mg/L	5	9/13/2016 8:17:15 PM	R37171
Sulfate	1.2	0.71	2.5	J	mg/L	5	9/13/2016 8:17:15 PM	R37171
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/18/2016 6:03:19 PM	R37299
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	4.7	0.0066	0.010	*	mg/L	5	9/29/2016 3:48:17 PM	F37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 3:46:37 PM	F37552
Calcium	220	2.5	5.0		mg/L	5	9/29/2016 3:48:17 PM	F37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 3:46:37 PM	F37552
Copper	0.0046	0.0040	0.0060	J	mg/L	1	9/29/2016 3:46:37 PM	F37552
Iron	14	0.40	0.40	*	mg/L	20	9/29/2016 3:50:02 PM	F37552
Magnesium	45	0.50	1.0		mg/L	1	9/29/2016 3:46:37 PM	F37552
Manganese	3.8	0.0016	0.010	*	mg/L	5	9/29/2016 3:48:17 PM	F37552
Potassium	13	0.50	1.0		mg/L	1	9/29/2016 3:46:37 PM	F37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 3:46:37 PM	F37552
Sodium	270	2.5	5.0		mg/L	5	9/29/2016 3:48:17 PM	F37552
Zinc	0.012	0.0028	0.010		mg/L	1	9/29/2016 3:46:37 PM	F37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	5.2	0.0079	0.020	*	mg/L	10	10/4/2016 4:15:54 PM	27665
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 7:48:47 PM	27665
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 7:48:47 PM	27665
Copper	0.022	0.0030	0.0060		mg/L	1	10/12/2016 9:04:52 PM	27933
Iron	17	1.0	1.0	*	mg/L	50	10/4/2016 4:17:45 PM	27665
Manganese	4.4	0.0014	0.010	*	mg/L	5	10/3/2016 7:50:29 PM	27665
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 7:48:47 PM	27665
Zinc	0.033	0.0027	0.010		mg/L	1	10/3/2016 7:48:47 PM	27665
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.027	0.00014	0.0010	*	mg/L	1	9/23/2016 12:21:52 PM	A37462
Lead	0.0040	0.00017	0.00050		mg/L	1	9/23/2016 12:21:52 PM	A37462
Selenium	0.0079	0.0011	0.0050		mg/L	5	9/23/2016 2:10:26 PM	B37462
Uranium	0.0033	0.000051	0.00050		mg/L	1	9/23/2016 12:21:52 PM	A37462

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-20
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/12/2016 9:25:00 AM
Lab ID: 1609601-002 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.025	0.0011	0.0050	*	mg/L	5	9/26/2016 5:37:25 PM	27665
Lead	0.0072	0.000081	0.00050		mg/L	1	9/26/2016 1:54:39 PM	27665
Selenium	0.0092	0.00094	0.0050		mg/L	5	9/26/2016 5:37:25 PM	27665
Uranium	0.0044	0.00017	0.00050		mg/L	1	9/26/2016 5:25:22 PM	27665
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:27:32 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	26	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Acenaphthylene	ND	24	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Aniline	ND	24	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Anthracene	ND	25	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Azobenzene	ND	27	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Benz(a)anthracene	ND	26	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Benzo(a)pyrene	ND	27	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Benzo(b)fluoranthene	ND	29	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Benzo(g,h,i)perylene	ND	26	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Benzo(k)fluoranthene	ND	30	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Benzoic acid	130	26	200	J	µg/L	1	9/17/2016 7:16:47 PM	27514
Benzyl alcohol	ND	30	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Bis(2-chloroethoxy)methane	ND	28	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Bis(2-chloroethyl)ether	ND	27	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Bis(2-chloroisopropyl)ether	ND	19	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Bis(2-ethylhexyl)phthalate	36	26	100	J	µg/L	1	9/17/2016 7:16:47 PM	27514
4-Bromophenyl phenyl ether	ND	26	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Butyl benzyl phthalate	ND	25	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Carbazole	ND	23	100		µg/L	1	9/17/2016 7:16:47 PM	27514
4-Chloro-3-methylphenol	ND	26	100		µg/L	1	9/17/2016 7:16:47 PM	27514
4-Chloroaniline	ND	27	100		µg/L	1	9/17/2016 7:16:47 PM	27514
2-Chloronaphthalene	ND	23	100		µg/L	1	9/17/2016 7:16:47 PM	27514
2-Chlorophenol	ND	22	100		µg/L	1	9/17/2016 7:16:47 PM	27514
4-Chlorophenyl phenyl ether	ND	26	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Chrysene	ND	28	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Di-n-butyl phthalate	ND	24	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Di-n-octyl phthalate	38	20	100	J	µg/L	1	9/17/2016 7:16:47 PM	27514
Dibenz(a,h)anthracene	ND	27	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Dibenzofuran	ND	25	100		µg/L	1	9/17/2016 7:16:47 PM	27514
1,2-Dichlorobenzene	ND	23	100		µg/L	1	9/17/2016 7:16:47 PM	27514
1,3-Dichlorobenzene	ND	23	100		µg/L	1	9/17/2016 7:16:47 PM	27514

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-20
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/12/2016 9:25:00 AM
Lab ID: 1609601-002 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	24	100		µg/L	1	9/17/2016 7:16:47 PM	27514
3,3´-Dichlorobenzidine	ND	24	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Diethyl phthalate	ND	27	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Dimethyl phthalate	29	24	100	J	µg/L	1	9/17/2016 7:16:47 PM	27514
2,4-Dichlorophenol	ND	23	200		µg/L	1	9/17/2016 7:16:47 PM	27514
2,4-Dimethylphenol	390	30	100		µg/L	1	9/17/2016 7:16:47 PM	27514
4,6-Dinitro-2-methylphenol	ND	18	200		µg/L	1	9/17/2016 7:16:47 PM	27514
2,4-Dinitrophenol	ND	28	200		µg/L	1	9/17/2016 7:16:47 PM	27514
2,4-Dinitrotoluene	ND	31	100		µg/L	1	9/17/2016 7:16:47 PM	27514
2,6-Dinitrotoluene	ND	27	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Fluoranthene	ND	26	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Fluorene	ND	27	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Hexachlorobenzene	ND	26	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Hexachlorobutadiene	ND	22	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Hexachlorocyclopentadiene	ND	23	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Hexachloroethane	ND	24	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Indeno(1,2,3-cd)pyrene	ND	30	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Isophorone	ND	26	100		µg/L	1	9/17/2016 7:16:47 PM	27514
1-Methylnaphthalene	48	29	100	J	µg/L	1	9/17/2016 7:16:47 PM	27514
2-Methylnaphthalene	43	29	100	J	µg/L	1	9/17/2016 7:16:47 PM	27514
2-Methylphenol	190	25	100		µg/L	1	9/17/2016 7:16:47 PM	27514
3+4-Methylphenol	61	23	100	J	µg/L	1	9/17/2016 7:16:47 PM	27514
N-Nitrosodi-n-propylamine	ND	24	100		µg/L	1	9/17/2016 7:16:47 PM	27514
N-Nitrosodimethylamine	ND	22	100		µg/L	1	9/17/2016 7:16:47 PM	27514
N-Nitrosodiphenylamine	ND	23	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Naphthalene	110	26	100		µg/L	1	9/17/2016 7:16:47 PM	27514
2-Nitroaniline	ND	28	100		µg/L	1	9/17/2016 7:16:47 PM	27514
3-Nitroaniline	ND	29	100		µg/L	1	9/17/2016 7:16:47 PM	27514
4-Nitroaniline	ND	26	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Nitrobenzene	ND	28	100		µg/L	1	9/17/2016 7:16:47 PM	27514
2-Nitrophenol	ND	24	100		µg/L	1	9/17/2016 7:16:47 PM	27514
4-Nitrophenol	ND	26	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Pentachlorophenol	25	23	200	J	µg/L	1	9/17/2016 7:16:47 PM	27514
Phenanthrene	ND	26	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Phenol	61	20	100	J	µg/L	1	9/17/2016 7:16:47 PM	27514
Pyrene	ND	31	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Pyridine	ND	22	100		µg/L	1	9/17/2016 7:16:47 PM	27514
1,2,4-Trichlorobenzene	ND	26	100		µg/L	1	9/17/2016 7:16:47 PM	27514
2,4,5-Trichlorophenol	ND	22	100		µg/L	1	9/17/2016 7:16:47 PM	27514

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-20
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/12/2016 9:25:00 AM
Lab ID: 1609601-002 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	24	100		µg/L	1	9/17/2016 7:16:47 PM	27514
Surr: 2-Fluorophenol	27.2	0	15-123		%Rec	1	9/17/2016 7:16:47 PM	27514
Surr: Phenol-d5	30.4	0	15-124		%Rec	1	9/17/2016 7:16:47 PM	27514
Surr: 2,4,6-Tribromophenol	83.1	0	18.4-134		%Rec	1	9/17/2016 7:16:47 PM	27514
Surr: Nitrobenzene-d5	68.9	0	28.8-134		%Rec	1	9/17/2016 7:16:47 PM	27514
Surr: 2-Fluorobiphenyl	67.2	0	35.9-125		%Rec	1	9/17/2016 7:16:47 PM	27514
Surr: 4-Terphenyl-d14	46.6	0	15-146		%Rec	1	9/17/2016 7:16:47 PM	27514
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	18000	96	1000		µg/L	1000	9/15/2016 8:05:37 PM	W37240
Toluene	480	12	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
Ethylbenzene	1300	11	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
Methyl tert-butyl ether (MTBE)	160	21	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
1,2,4-Trimethylbenzene	1300	11	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
1,3,5-Trimethylbenzene	410	12	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
1,2-Dichloroethane (EDC)	ND	12	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
1,2-Dibromoethane (EDB)	ND	11	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
Naphthalene	230	9.3	200		µg/L	100	9/15/2016 2:49:30 PM	W37240
1-Methylnaphthalene	53	20	400	J	µg/L	100	9/15/2016 2:49:30 PM	W37240
2-Methylnaphthalene	62	16	400	J	µg/L	100	9/15/2016 2:49:30 PM	W37240
Acetone	ND	490	1000		µg/L	100	9/15/2016 2:49:30 PM	W37240
Bromobenzene	ND	9.8	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
Bromodichloromethane	ND	14	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
Bromoform	ND	10	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
Bromomethane	ND	78	300		µg/L	100	9/15/2016 2:49:30 PM	W37240
2-Butanone	ND	74	1000		µg/L	100	9/15/2016 2:49:30 PM	W37240
Carbon disulfide	ND	60	1000		µg/L	100	9/15/2016 2:49:30 PM	W37240
Carbon Tetrachloride	ND	11	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
Chlorobenzene	ND	11	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
Chloroethane	ND	19	200		µg/L	100	9/15/2016 2:49:30 PM	W37240
Chloroform	ND	8.9	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
Chloromethane	ND	21	300		µg/L	100	9/15/2016 2:49:30 PM	W37240
2-Chlorotoluene	ND	40	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
4-Chlorotoluene	ND	13	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
cis-1,2-DCE	ND	12	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
cis-1,3-Dichloropropene	ND	11	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
1,2-Dibromo-3-chloropropane	ND	23	200		µg/L	100	9/15/2016 2:49:30 PM	W37240
Dibromochloromethane	ND	8.7	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
Dibromomethane	ND	12	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
1,2-Dichlorobenzene	ND	40	100		µg/L	100	9/15/2016 2:49:30 PM	W37240

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-20
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/12/2016 9:25:00 AM
Lab ID: 1609601-002 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichlorobenzene	ND	14	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
1,4-Dichlorobenzene	ND	14	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
Dichlorodifluoromethane	ND	36	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
1,1-Dichloroethane	ND	11	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
1,1-Dichloroethene	ND	11	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
1,2-Dichloropropane	ND	11	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
1,3-Dichloropropane	ND	16	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
2,2-Dichloropropane	ND	17	200		µg/L	100	9/15/2016 2:49:30 PM	W37240
1,1-Dichloropropene	ND	13	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
Hexachlorobutadiene	ND	20	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
2-Hexanone	ND	84	1000		µg/L	100	9/15/2016 2:49:30 PM	W37240
Isopropylbenzene	28	10	100	J	µg/L	100	9/15/2016 2:49:30 PM	W37240
4-Isopropyltoluene	ND	14	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
4-Methyl-2-pentanone	ND	43	1000		µg/L	100	9/15/2016 2:49:30 PM	W37240
Methylene Chloride	ND	19	300		µg/L	100	9/15/2016 2:49:30 PM	W37240
n-Butylbenzene	ND	16	300		µg/L	100	9/15/2016 2:49:30 PM	W37240
n-Propylbenzene	110	13	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
sec-Butylbenzene	ND	12	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
Styrene	ND	11	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
tert-Butylbenzene	ND	12	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
1,1,1,2-Tetrachloroethane	ND	11	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
1,1,2,2-Tetrachloroethane	ND	13	200		µg/L	100	9/15/2016 2:49:30 PM	W37240
Tetrachloroethene (PCE)	ND	15	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
trans-1,2-DCE	ND	40	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
trans-1,3-Dichloropropene	ND	10	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
1,2,3-Trichlorobenzene	ND	11	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
1,2,4-Trichlorobenzene	ND	13	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
1,1,1-Trichloroethane	ND	9.1	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
1,1,2-Trichloroethane	ND	13	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
Trichloroethene (TCE)	ND	18	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
Trichlorofluoromethane	ND	20	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
1,2,3-Trichloropropane	ND	20	200		µg/L	100	9/15/2016 2:49:30 PM	W37240
Vinyl chloride	ND	20	100		µg/L	100	9/15/2016 2:49:30 PM	W37240
Xylenes, Total	8800	37	150		µg/L	100	9/15/2016 2:49:30 PM	W37240
Surr: 1,2-Dichloroethane-d4	95.9	0	70-130		%Rec	100	9/15/2016 2:49:30 PM	W37240
Surr: 4-Bromofluorobenzene	95.0	0	70-130		%Rec	100	9/15/2016 2:49:30 PM	W37240
Surr: Dibromofluoromethane	107	0	70-130		%Rec	100	9/15/2016 2:49:30 PM	W37240
Surr: Toluene-d8	90.7	0	70-130		%Rec	100	9/15/2016 2:49:30 PM	W37240
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-20
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/12/2016 9:25:00 AM
Lab ID: 1609601-002 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	72	1.5	5.0		mg/L	100	9/15/2016 2:49:30 PM	G37240
Surr: BFB	92.3	0	70-130		%Rec	100	9/15/2016 2:49:30 PM	G37240

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-16
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/12/2016 10:10:00 AM
Lab ID: 1609601-003 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	3.5	0.69	1.0		mg/L	1	9/14/2016 3:53:36 PM	27491
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/14/2016 3:53:36 PM	27491
Surr: DNOP	133	0	77.1-144		%Rec	1	9/14/2016 3:53:36 PM	27491
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	1.3	0.050	0.10		mg/L	1	9/13/2016 8:42:04 PM	R37171
Chloride	390	2.5	25		mg/L	50	9/23/2016 5:28:48 PM	R37469
Bromide	0.80	0.044	0.10		mg/L	1	9/13/2016 8:42:04 PM	R37171
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50		mg/L	1	9/13/2016 8:42:04 PM	R37171
Sulfate	0.36	0.14	0.50	J	mg/L	1	9/13/2016 8:42:04 PM	R37171
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/18/2016 6:15:43 PM	R37299
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.67	0.0013	0.0020		mg/L	1	9/29/2016 3:57:46 PM	F37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 3:57:46 PM	F37552
Calcium	47	0.50	1.0		mg/L	1	9/29/2016 3:57:46 PM	F37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 3:57:46 PM	F37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 3:57:46 PM	F37552
Iron	2.4	0.20	0.20	*	mg/L	10	9/29/2016 3:59:31 PM	F37552
Magnesium	13	0.50	1.0		mg/L	1	9/29/2016 3:57:46 PM	F37552
Manganese	0.94	0.00032	0.0020	*	mg/L	1	9/29/2016 3:57:46 PM	F37552
Potassium	0.68	0.50	1.0	J	mg/L	1	9/29/2016 3:57:46 PM	F37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 3:57:46 PM	F37552
Sodium	660	5.0	10		mg/L	10	9/29/2016 3:59:31 PM	F37552
Zinc	ND	0.0028	0.010		mg/L	1	9/29/2016 3:57:46 PM	F37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.72	0.00079	0.0020		mg/L	1	10/3/2016 7:52:23 PM	27665
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 7:52:23 PM	27665
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 7:52:23 PM	27665
Copper	ND	0.0030	0.0060		mg/L	1	10/12/2016 9:06:36 PM	27933
Iron	4.6	0.10	0.10	*	mg/L	5	10/3/2016 7:54:07 PM	27665
Manganese	0.96	0.00027	0.0020	*	mg/L	1	10/3/2016 7:52:23 PM	27665
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 7:52:23 PM	27665
Zinc	0.022	0.0027	0.010		mg/L	1	10/3/2016 7:52:23 PM	27665
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.014	0.00014	0.0010	*	mg/L	1	9/23/2016 12:24:56 PM	A37462
Lead	0.00027	0.00017	0.00050	J	mg/L	1	9/23/2016 12:24:56 PM	A37462
Selenium	0.013	0.0011	0.0050		mg/L	5	9/23/2016 2:16:32 PM	B37462
Uranium	0.0040	0.000051	0.00050		mg/L	1	9/23/2016 12:24:56 PM	A37462

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-16
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/12/2016 10:10:00 AM
Lab ID: 1609601-003
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.014	0.0011	0.0050	*	mg/L	5	9/26/2016 5:43:26 PM	27665
Lead	0.0029	0.000081	0.00050		mg/L	1	9/26/2016 1:59:48 PM	27665
Selenium	0.014	0.00094	0.0050		mg/L	5	9/26/2016 5:43:26 PM	27665
Uranium	0.0067	0.00017	0.00050		mg/L	1	9/26/2016 5:28:23 PM	27665
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:29:40 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Aniline	5.6	2.4	10	J	µg/L	1	9/17/2016 7:44:32 PM	27514
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Benzoic acid	24	2.6	20		µg/L	1	9/17/2016 7:44:32 PM	27514
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Bis(2-ethylhexyl)phthalate	4.0	2.6	10	J	µg/L	1	9/17/2016 7:44:32 PM	27514
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Carbazole	3.6	2.3	10	J	µg/L	1	9/17/2016 7:44:32 PM	27514
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 7:44:32 PM	27514
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 7:44:32 PM	27514
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 7:44:32 PM	27514
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 7:44:32 PM	27514
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Di-n-octyl phthalate	3.6	2.0	10	J	µg/L	1	9/17/2016 7:44:32 PM	27514
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 7:44:32 PM	27514
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 7:44:32 PM	27514
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 7:44:32 PM	27514

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-16
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/12/2016 10:10:00 AM
Lab ID: 1609601-003
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 7:44:32 PM	27514
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Dimethyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 7:44:32 PM	27514
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 7:44:32 PM	27514
2,4-Dimethylphenol	84	3.0	10		µg/L	1	9/17/2016 7:44:32 PM	27514
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 7:44:32 PM	27514
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 7:44:32 PM	27514
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 7:44:32 PM	27514
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 7:44:32 PM	27514
1-Methylnaphthalene	46	2.9	10		µg/L	1	9/17/2016 7:44:32 PM	27514
2-Methylnaphthalene	51	2.9	10		µg/L	1	9/17/2016 7:44:32 PM	27514
2-Methylphenol	71	2.5	10		µg/L	1	9/17/2016 7:44:32 PM	27514
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 7:44:32 PM	27514
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 7:44:32 PM	27514
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 7:44:32 PM	27514
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Naphthalene	130	2.6	10		µg/L	1	9/17/2016 7:44:32 PM	27514
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 7:44:32 PM	27514
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 7:44:32 PM	27514
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 7:44:32 PM	27514
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 7:44:32 PM	27514
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 7:44:32 PM	27514
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Phenol	140	2.0	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 7:44:32 PM	27514
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 7:44:32 PM	27514
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 7:44:32 PM	27514

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-16
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/12/2016 10:10:00 AM
Lab ID: 1609601-003 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 7:44:32 PM	27514
Surr: 2-Fluorophenol	22.8	0	15-123		%Rec	1	9/17/2016 7:44:32 PM	27514
Surr: Phenol-d5	45.7	0	15-124		%Rec	1	9/17/2016 7:44:32 PM	27514
Surr: 2,4,6-Tribromophenol	99.5	0	18.4-134		%Rec	1	9/17/2016 7:44:32 PM	27514
Surr: Nitrobenzene-d5	81.8	0	28.8-134		%Rec	1	9/17/2016 7:44:32 PM	27514
Surr: 2-Fluorobiphenyl	87.6	0	35.9-125		%Rec	1	9/17/2016 7:44:32 PM	27514
Surr: 4-Terphenyl-d14	52.6	0	15-146		%Rec	1	9/17/2016 7:44:32 PM	27514
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	23000	96	1000		µg/L	1000	9/15/2016 9:02:55 PM	W37240
Toluene	240	12	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
Ethylbenzene	1300	11	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
Methyl tert-butyl ether (MTBE)	1700	21	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
1,2,4-Trimethylbenzene	780	11	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
1,3,5-Trimethylbenzene	270	12	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
1,2-Dichloroethane (EDC)	ND	12	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
1,2-Dibromoethane (EDB)	ND	11	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
Naphthalene	230	9.3	200		µg/L	100	9/15/2016 3:18:13 PM	W37240
1-Methylnaphthalene	52	20	400	J	µg/L	100	9/15/2016 3:18:13 PM	W37240
2-Methylnaphthalene	60	16	400	J	µg/L	100	9/15/2016 3:18:13 PM	W37240
Acetone	ND	490	1000		µg/L	100	9/15/2016 3:18:13 PM	W37240
Bromobenzene	ND	9.8	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
Bromodichloromethane	ND	14	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
Bromoform	ND	10	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
Bromomethane	ND	78	300		µg/L	100	9/15/2016 3:18:13 PM	W37240
2-Butanone	ND	74	1000		µg/L	100	9/15/2016 3:18:13 PM	W37240
Carbon disulfide	ND	60	1000		µg/L	100	9/15/2016 3:18:13 PM	W37240
Carbon Tetrachloride	ND	11	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
Chlorobenzene	ND	11	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
Chloroethane	ND	19	200		µg/L	100	9/15/2016 3:18:13 PM	W37240
Chloroform	ND	8.9	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
Chloromethane	ND	21	300		µg/L	100	9/15/2016 3:18:13 PM	W37240
2-Chlorotoluene	ND	40	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
4-Chlorotoluene	ND	13	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
cis-1,2-DCE	ND	12	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
cis-1,3-Dichloropropene	ND	11	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
1,2-Dibromo-3-chloropropane	ND	23	200		µg/L	100	9/15/2016 3:18:13 PM	W37240
Dibromochloromethane	ND	8.7	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
Dibromomethane	ND	12	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
1,2-Dichlorobenzene	ND	40	100		µg/L	100	9/15/2016 3:18:13 PM	W37240

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-16
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/12/2016 10:10:00 AM
Lab ID: 1609601-003 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichlorobenzene	ND	14	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
1,4-Dichlorobenzene	ND	14	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
Dichlorodifluoromethane	ND	36	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
1,1-Dichloroethane	65	11	100	J	µg/L	100	9/15/2016 3:18:13 PM	W37240
1,1-Dichloroethene	ND	11	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
1,2-Dichloropropane	ND	11	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
1,3-Dichloropropane	ND	16	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
2,2-Dichloropropane	ND	17	200		µg/L	100	9/15/2016 3:18:13 PM	W37240
1,1-Dichloropropene	ND	13	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
Hexachlorobutadiene	ND	20	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
2-Hexanone	ND	84	1000		µg/L	100	9/15/2016 3:18:13 PM	W37240
Isopropylbenzene	19	10	100	J	µg/L	100	9/15/2016 3:18:13 PM	W37240
4-Isopropyltoluene	ND	14	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
4-Methyl-2-pentanone	ND	43	1000		µg/L	100	9/15/2016 3:18:13 PM	W37240
Methylene Chloride	ND	19	300		µg/L	100	9/15/2016 3:18:13 PM	W37240
n-Butylbenzene	ND	16	300		µg/L	100	9/15/2016 3:18:13 PM	W37240
n-Propylbenzene	82	13	100	J	µg/L	100	9/15/2016 3:18:13 PM	W37240
sec-Butylbenzene	ND	12	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
Styrene	ND	11	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
tert-Butylbenzene	ND	12	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
1,1,1,2-Tetrachloroethane	ND	11	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
1,1,2,2-Tetrachloroethane	ND	13	200		µg/L	100	9/15/2016 3:18:13 PM	W37240
Tetrachloroethene (PCE)	ND	15	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
trans-1,2-DCE	ND	40	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
trans-1,3-Dichloropropene	ND	10	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
1,2,3-Trichlorobenzene	ND	11	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
1,2,4-Trichlorobenzene	ND	13	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
1,1,1-Trichloroethane	ND	9.1	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
1,1,2-Trichloroethane	ND	13	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
Trichloroethene (TCE)	ND	18	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
Trichlorofluoromethane	ND	20	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
1,2,3-Trichloropropane	ND	20	200		µg/L	100	9/15/2016 3:18:13 PM	W37240
Vinyl chloride	ND	20	100		µg/L	100	9/15/2016 3:18:13 PM	W37240
Xylenes, Total	4300	37	150		µg/L	100	9/15/2016 3:18:13 PM	W37240
Surr: 1,2-Dichloroethane-d4	100	0	70-130		%Rec	100	9/15/2016 3:18:13 PM	W37240
Surr: 4-Bromofluorobenzene	95.4	0	70-130		%Rec	100	9/15/2016 3:18:13 PM	W37240
Surr: Dibromofluoromethane	105	0	70-130		%Rec	100	9/15/2016 3:18:13 PM	W37240
Surr: Toluene-d8	91.9	0	70-130		%Rec	100	9/15/2016 3:18:13 PM	W37240
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-16
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/12/2016 10:10:00 AM
Lab ID: 1609601-003 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	62	1.5	5.0		mg/L	100	9/15/2016 3:18:13 PM	G37240
Surr: BFB	96.1	0	70-130		%Rec	100	9/15/2016 3:18:13 PM	G37240

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-11
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 1:30:00 PM
Lab ID: 1609601-004 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	1.7	0.69	1.0		mg/L	1	9/14/2016 4:15:24 PM	27491
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/14/2016 4:15:24 PM	27491
Surr: DNOP	134	0	77.1-144		%Rec	1	9/14/2016 4:15:24 PM	27491
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	ND	1.0	2.0		mg/L	20	9/18/2016 1:05:28 PM	R37299
Chloride	880	5.1	50		mg/L	100	9/23/2016 5:41:13 PM	R37469
Bromide	ND	0.044	0.10		mg/L	1	9/18/2016 12:28:15 PM	R37299
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/18/2016 12:28:15 PM	R37299
Sulfate	2.2	0.14	0.50		mg/L	1	9/18/2016 12:28:15 PM	R37299
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/18/2016 6:28:07 PM	R37299
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	2.5	0.013	0.020	*	mg/L	10	9/29/2016 4:02:59 PM	F37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 4:01:18 PM	F37552
Calcium	160	5.0	10		mg/L	10	9/29/2016 4:02:59 PM	F37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 4:01:18 PM	F37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 4:01:18 PM	F37552
Iron	4.6	0.20	0.20	*	mg/L	10	9/29/2016 4:02:59 PM	F37552
Magnesium	44	0.50	1.0		mg/L	1	9/29/2016 4:01:18 PM	F37552
Manganese	3.8	0.0032	0.020	*	mg/L	10	9/29/2016 4:02:59 PM	F37552
Potassium	0.99	0.50	1.0	J	mg/L	1	9/29/2016 4:01:18 PM	F37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 4:01:18 PM	F37552
Sodium	740	5.0	10		mg/L	10	9/29/2016 4:02:59 PM	F37552
Zinc	ND	0.0028	0.010		mg/L	1	9/29/2016 4:01:18 PM	F37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	2.9	0.0040	0.010	*	mg/L	5	10/3/2016 7:57:52 PM	27665
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 7:56:09 PM	27665
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 7:56:09 PM	27665
Copper	ND	0.0030	0.0060		mg/L	1	10/3/2016 7:56:09 PM	27665
Iron	7.1	0.20	0.20	*	mg/L	10	10/4/2016 4:21:35 PM	27665
Manganese	4.1	0.0014	0.010	*	mg/L	5	10/3/2016 7:57:52 PM	27665
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 7:56:09 PM	27665
Zinc	0.012	0.0027	0.010		mg/L	1	10/3/2016 7:56:09 PM	27665
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.014	0.00014	0.0010	*	mg/L	1	9/23/2016 12:27:59 PM	A37462
Lead	ND	0.00017	0.00050		mg/L	1	9/23/2016 12:27:59 PM	A37462
Selenium	0.0062	0.0021	0.010	J	mg/L	10	9/23/2016 2:22:39 PM	B37462
Uranium	0.0044	0.000051	0.00050		mg/L	1	9/23/2016 12:27:59 PM	A37462

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-11
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 1:30:00 PM
Lab ID: 1609601-004
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.013	0.00021	0.0010	*	mg/L	1	9/26/2016 2:04:56 PM	27665
Lead	0.0011	0.000081	0.00050		mg/L	1	9/26/2016 2:04:56 PM	27665
Selenium	0.0054	0.0019	0.010	J	mg/L	10	9/26/2016 6:10:33 PM	27665
Uranium	0.0065	0.00017	0.00050		mg/L	1	9/26/2016 5:31:23 PM	27665
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:31:47 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Aniline	9.3	2.4	10	J	µg/L	1	9/17/2016 8:12:06 PM	27514
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Benzoic acid	ND	2.6	20		µg/L	1	9/17/2016 8:12:06 PM	27514
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Bis(2-ethylhexyl)phthalate	3.7	2.6	10	J	µg/L	1	9/17/2016 8:12:06 PM	27514
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 8:12:06 PM	27514
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 8:12:06 PM	27514
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 8:12:06 PM	27514
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 8:12:06 PM	27514
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 8:12:06 PM	27514
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Di-n-octyl phthalate	3.7	2.0	10	J	µg/L	1	9/17/2016 8:12:06 PM	27514
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 8:12:06 PM	27514
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 8:12:06 PM	27514
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 8:12:06 PM	27514

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-11
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 1:30:00 PM
Lab ID: 1609601-004
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 8:12:06 PM	27514
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Dimethyl phthalate	2.9	2.4	10	J	µg/L	1	9/17/2016 8:12:06 PM	27514
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 8:12:06 PM	27514
2,4-Dimethylphenol	42	3.0	10		µg/L	1	9/17/2016 8:12:06 PM	27514
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 8:12:06 PM	27514
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 8:12:06 PM	27514
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 8:12:06 PM	27514
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 8:12:06 PM	27514
1-Methylnaphthalene	12	2.9	10		µg/L	1	9/17/2016 8:12:06 PM	27514
2-Methylnaphthalene	9.0	2.9	10	J	µg/L	1	9/17/2016 8:12:06 PM	27514
2-Methylphenol	130	2.5	10		µg/L	1	9/17/2016 8:12:06 PM	27514
3+4-Methylphenol	120	2.3	10		µg/L	1	9/17/2016 8:12:06 PM	27514
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 8:12:06 PM	27514
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 8:12:06 PM	27514
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Naphthalene	30	2.6	10		µg/L	1	9/17/2016 8:12:06 PM	27514
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 8:12:06 PM	27514
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 8:12:06 PM	27514
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 8:12:06 PM	27514
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 8:12:06 PM	27514
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 8:12:06 PM	27514
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Phenol	49	2.0	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 8:12:06 PM	27514
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 8:12:06 PM	27514
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 8:12:06 PM	27514

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-11
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 1:30:00 PM
Lab ID: 1609601-004
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 8:12:06 PM	27514
Surr: 2-Fluorophenol	21.5	0	15-123		%Rec	1	9/17/2016 8:12:06 PM	27514
Surr: Phenol-d5	45.8	0	15-124		%Rec	1	9/17/2016 8:12:06 PM	27514
Surr: 2,4,6-Tribromophenol	60.0	0	18.4-134		%Rec	1	9/17/2016 8:12:06 PM	27514
Surr: Nitrobenzene-d5	74.6	0	28.8-134		%Rec	1	9/17/2016 8:12:06 PM	27514
Surr: 2-Fluorobiphenyl	77.1	0	35.9-125		%Rec	1	9/17/2016 8:12:06 PM	27514
Surr: 4-Terphenyl-d14	50.7	0	15-146		%Rec	1	9/17/2016 8:12:06 PM	27514
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	4500	4.8	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
Toluene	4800	5.9	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
Ethylbenzene	530	5.6	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
Methyl tert-butyl ether (MTBE)	81	11	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
1,2,4-Trimethylbenzene	250	5.5	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
1,3,5-Trimethylbenzene	45	5.8	50	J	µg/L	50	9/15/2016 3:47:02 PM	W37240
1,2-Dichloroethane (EDC)	ND	5.8	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
1,2-Dibromoethane (EDB)	ND	5.6	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
Naphthalene	50	4.6	100	J	µg/L	50	9/15/2016 3:47:02 PM	W37240
1-Methylnaphthalene	21	10	200	J	µg/L	50	9/15/2016 3:47:02 PM	W37240
2-Methylnaphthalene	14	7.9	200	J	µg/L	50	9/15/2016 3:47:02 PM	W37240
Acetone	ND	250	500		µg/L	50	9/15/2016 3:47:02 PM	W37240
Bromobenzene	ND	4.9	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
Bromodichloromethane	ND	7.0	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
Bromoform	ND	5.1	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
Bromomethane	ND	39	150		µg/L	50	9/15/2016 3:47:02 PM	W37240
2-Butanone	270	37	500	J	µg/L	50	9/15/2016 3:47:02 PM	W37240
Carbon disulfide	ND	30	500		µg/L	50	9/15/2016 3:47:02 PM	W37240
Carbon Tetrachloride	ND	5.4	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
Chlorobenzene	ND	5.7	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
Chloroethane	ND	9.6	100		µg/L	50	9/15/2016 3:47:02 PM	W37240
Chloroform	ND	4.4	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
Chloromethane	ND	11	150		µg/L	50	9/15/2016 3:47:02 PM	W37240
2-Chlorotoluene	ND	20	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
4-Chlorotoluene	ND	6.4	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
cis-1,2-DCE	ND	6.2	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
cis-1,3-Dichloropropene	ND	5.3	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
1,2-Dibromo-3-chloropropane	ND	12	100		µg/L	50	9/15/2016 3:47:02 PM	W37240
Dibromochloromethane	ND	4.3	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
Dibromomethane	ND	6.0	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
1,2-Dichlorobenzene	ND	20	50		µg/L	50	9/15/2016 3:47:02 PM	W37240

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-11
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 1:30:00 PM
Lab ID: 1609601-004
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichlorobenzene	ND	7.2	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
1,4-Dichlorobenzene	ND	7.1	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
Dichlorodifluoromethane	ND	18	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
1,1-Dichloroethane	53	5.4	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
1,1-Dichloroethene	ND	5.4	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
1,2-Dichloropropane	ND	5.5	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
1,3-Dichloropropane	ND	7.8	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
2,2-Dichloropropane	ND	8.3	100		µg/L	50	9/15/2016 3:47:02 PM	W37240
1,1-Dichloropropene	ND	6.7	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
Hexachlorobutadiene	ND	9.9	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
2-Hexanone	ND	42	500		µg/L	50	9/15/2016 3:47:02 PM	W37240
Isopropylbenzene	19	5.2	50	J	µg/L	50	9/15/2016 3:47:02 PM	W37240
4-Isopropyltoluene	ND	7.0	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
4-Methyl-2-pentanone	ND	21	500		µg/L	50	9/15/2016 3:47:02 PM	W37240
Methylene Chloride	ND	9.4	150		µg/L	50	9/15/2016 3:47:02 PM	W37240
n-Butylbenzene	ND	8.0	150		µg/L	50	9/15/2016 3:47:02 PM	W37240
n-Propylbenzene	58	6.6	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
sec-Butylbenzene	ND	6.2	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
Styrene	ND	5.5	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
tert-Butylbenzene	ND	5.8	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
1,1,1,2-Tetrachloroethane	ND	5.6	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
1,1,2,2-Tetrachloroethane	ND	6.4	100		µg/L	50	9/15/2016 3:47:02 PM	W37240
Tetrachloroethene (PCE)	ND	7.6	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
trans-1,2-DCE	ND	20	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
trans-1,3-Dichloropropene	ND	5.2	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
1,2,3-Trichlorobenzene	ND	5.6	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
1,2,4-Trichlorobenzene	ND	6.6	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
1,1,1-Trichloroethane	ND	4.6	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
1,1,2-Trichloroethane	ND	6.4	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
Trichloroethene (TCE)	ND	8.8	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
Trichlorofluoromethane	ND	10	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
1,2,3-Trichloropropane	ND	10	100		µg/L	50	9/15/2016 3:47:02 PM	W37240
Vinyl chloride	56	9.8	50		µg/L	50	9/15/2016 3:47:02 PM	W37240
Xylenes, Total	1600	18	75		µg/L	50	9/15/2016 3:47:02 PM	W37240
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	50	9/15/2016 3:47:02 PM	W37240
Surr: 4-Bromofluorobenzene	93.1	0	70-130		%Rec	50	9/15/2016 3:47:02 PM	W37240
Surr: Dibromofluoromethane	111	0	70-130		%Rec	50	9/15/2016 3:47:02 PM	W37240
Surr: Toluene-d8	94.1	0	70-130		%Rec	50	9/15/2016 3:47:02 PM	W37240
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-11
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 1:30:00 PM
Lab ID: 1609601-004 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	29	0.75	2.5		mg/L	50	9/15/2016 3:47:02 PM	G37240
Surr: BFB	95.3	0	70-130		%Rec	50	9/15/2016 3:47:02 PM	G37240

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Qualifiers:

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-04
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 2:45:00 PM
Lab ID: 1609601-005 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	5.3	0.69	1.0		mg/L	1	9/14/2016 4:37:04 PM	27491
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/14/2016 4:37:04 PM	27491
Surr: DNOP	136	0	77.1-144		%Rec	1	9/14/2016 4:37:04 PM	27491
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.74	0.050	0.10		mg/L	1	9/18/2016 1:17:53 PM	R37299
Chloride	220	1.0	10		mg/L	20	9/18/2016 1:30:17 PM	R37299
Bromide	2.2	0.044	0.10		mg/L	1	9/18/2016 1:17:53 PM	R37299
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/18/2016 1:17:53 PM	R37299
Sulfate	4.1	0.14	0.50		mg/L	1	9/18/2016 1:17:53 PM	R37299
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/18/2016 6:40:32 PM	R37299
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	2.6	0.0066	0.010	*	mg/L	5	9/29/2016 4:06:58 PM	F37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 4:04:54 PM	F37552
Calcium	110	2.5	5.0		mg/L	5	9/29/2016 4:06:58 PM	F37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 4:04:54 PM	F37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 4:04:54 PM	F37552
Iron	1.2	0.10	0.10	*	mg/L	5	9/29/2016 4:06:58 PM	F37552
Magnesium	28	0.50	1.0		mg/L	1	9/29/2016 4:04:54 PM	F37552
Manganese	1.4	0.0016	0.010	*	mg/L	5	9/29/2016 4:06:58 PM	F37552
Potassium	0.72	0.50	1.0	J	mg/L	1	9/29/2016 4:04:54 PM	F37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 4:04:54 PM	F37552
Sodium	340	2.5	5.0		mg/L	5	9/29/2016 4:06:58 PM	F37552
Zinc	0.0030	0.0028	0.010	J	mg/L	1	9/29/2016 4:04:54 PM	F37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	3.4	0.0040	0.010	*	mg/L	5	10/3/2016 8:01:29 PM	27665
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 7:59:48 PM	27665
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 7:59:48 PM	27665
Copper	ND	0.0030	0.0060		mg/L	1	10/3/2016 7:59:48 PM	27665
Iron	6.7	0.20	0.20	*	mg/L	10	10/4/2016 4:23:34 PM	27665
Manganese	1.5	0.0014	0.010	*	mg/L	5	10/3/2016 8:01:29 PM	27665
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 7:59:48 PM	27665
Zinc	0.0072	0.0027	0.010	J	mg/L	1	10/3/2016 7:59:48 PM	27665
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.011	0.00014	0.0010	*	mg/L	1	9/23/2016 12:31:03 PM	A37462
Lead	0.00033	0.00017	0.00050	J	mg/L	1	9/23/2016 12:31:03 PM	A37462
Selenium	0.014	0.0042	0.020	J	mg/L	20	9/23/2016 2:28:46 PM	B37462
Uranium	0.0037	0.000051	0.00050		mg/L	1	9/23/2016 12:31:03 PM	A37462

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-04
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 2:45:00 PM
Lab ID: 1609601-005
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.010	0.0011	0.0050	*	mg/L	5	9/26/2016 6:13:34 PM	27665
Lead	0.0030	0.000081	0.00050		mg/L	1	9/26/2016 2:10:05 PM	27665
Selenium	0.014	0.00094	0.0050		mg/L	5	9/26/2016 6:13:34 PM	27665
Uranium	0.0028	0.00017	0.00050		mg/L	1	9/26/2016 5:34:24 PM	27665
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:33:47 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	4.9	2.6	10	J	µg/L	1	9/17/2016 5:25:43 PM	27514
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Aniline	ND	2.4	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Benzoic acid	ND	2.6	20		µg/L	1	9/17/2016 5:25:43 PM	27514
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Bis(2-ethylhexyl)phthalate	3.6	2.6	10	J	µg/L	1	9/17/2016 5:25:43 PM	27514
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Carbazole	17	2.3	10		µg/L	1	9/17/2016 5:25:43 PM	27514
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 5:25:43 PM	27514
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 5:25:43 PM	27514
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 5:25:43 PM	27514
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 5:25:43 PM	27514
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Di-n-octyl phthalate	4.9	2.0	10	J	µg/L	1	9/17/2016 5:25:43 PM	27514
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Dibenzofuran	2.5	2.5	10	J	µg/L	1	9/17/2016 5:25:43 PM	27514
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 5:25:43 PM	27514
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 5:25:43 PM	27514

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Hall Environmental Analysis Laboratory, Inc.

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Collection Date: 9/11/2016 2:45:00 PM
Lab ID: 1609601-005 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 5:25:43 PM	27514
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Dimethyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 5:25:43 PM	27514
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 5:25:43 PM	27514
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 5:25:43 PM	27514
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 5:25:43 PM	27514
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 5:25:43 PM	27514
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 5:25:43 PM	27514
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Fluorene	5.2	2.7	10	J	µg/L	1	9/17/2016 5:25:43 PM	27514
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 5:25:43 PM	27514
1-Methylnaphthalene	140	2.9	10		µg/L	1	9/17/2016 5:25:43 PM	27514
2-Methylnaphthalene	160	2.9	10		µg/L	1	9/17/2016 5:25:43 PM	27514
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 5:25:43 PM	27514
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 5:25:43 PM	27514
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 5:25:43 PM	27514
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 5:25:43 PM	27514
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Naphthalene	220	2.6	10		µg/L	1	9/17/2016 5:25:43 PM	27514
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 5:25:43 PM	27514
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 5:25:43 PM	27514
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 5:25:43 PM	27514
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 5:25:43 PM	27514
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 5:25:43 PM	27514
Phenanthrene	7.1	2.6	10	J	µg/L	1	9/17/2016 5:25:43 PM	27514
Phenol	3.7	2.0	10	J	µg/L	1	9/17/2016 5:25:43 PM	27514
Pyrene	3.3	3.1	10	J	µg/L	1	9/17/2016 5:25:43 PM	27514
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 5:25:43 PM	27514
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 5:25:43 PM	27514
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 5:25:43 PM	27514

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Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 2:45:00 PM
Lab ID: 1609601-005
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 5:25:43 PM	27514
Surr: 2-Fluorophenol	38.0	0	15-123		%Rec	1	9/17/2016 5:25:43 PM	27514
Surr: Phenol-d5	40.4	0	15-124		%Rec	1	9/17/2016 5:25:43 PM	27514
Surr: 2,4,6-Tribromophenol	84.3	0	18.4-134		%Rec	1	9/17/2016 5:25:43 PM	27514
Surr: Nitrobenzene-d5	69.5	0	28.8-134		%Rec	1	9/17/2016 5:25:43 PM	27514
Surr: 2-Fluorobiphenyl	68.7	0	35.9-125		%Rec	1	9/17/2016 5:25:43 PM	27514
Surr: 4-Terphenyl-d14	51.2	0	15-146		%Rec	1	9/17/2016 5:25:43 PM	27514
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	880	4.8	50		µg/L	50	9/15/2016 9:31:42 PM	W37240
Toluene	15	0.59	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
Ethylbenzene	670	5.6	50		µg/L	50	9/15/2016 9:31:42 PM	W37240
Methyl tert-butyl ether (MTBE)	2400	11	50		µg/L	50	9/15/2016 9:31:42 PM	W37240
1,2,4-Trimethylbenzene	430	0.55	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
1,3,5-Trimethylbenzene	69	0.58	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
1,2-Dichloroethane (EDC)	2.6	0.58	5.0	J	µg/L	5	9/15/2016 4:15:45 PM	W37240
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
Naphthalene	390	0.46	10		µg/L	5	9/15/2016 4:15:45 PM	W37240
1-Methylnaphthalene	220	1.0	20		µg/L	5	9/15/2016 4:15:45 PM	W37240
2-Methylnaphthalene	220	0.79	20		µg/L	5	9/15/2016 4:15:45 PM	W37240
Acetone	ND	25	50		µg/L	5	9/15/2016 4:15:45 PM	W37240
Bromobenzene	ND	0.49	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
Bromodichloromethane	ND	0.70	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
Bromoform	ND	0.51	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
Bromomethane	ND	3.9	15		µg/L	5	9/15/2016 4:15:45 PM	W37240
2-Butanone	ND	3.7	50		µg/L	5	9/15/2016 4:15:45 PM	W37240
Carbon disulfide	ND	3.0	50		µg/L	5	9/15/2016 4:15:45 PM	W37240
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
Chlorobenzene	ND	0.57	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
Chloroethane	ND	0.96	10		µg/L	5	9/15/2016 4:15:45 PM	W37240
Chloroform	ND	0.44	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
Chloromethane	ND	1.1	15		µg/L	5	9/15/2016 4:15:45 PM	W37240
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
cis-1,2-DCE	10	0.62	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	9/15/2016 4:15:45 PM	W37240
Dibromochloromethane	ND	0.43	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
Dibromomethane	ND	0.60	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240

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Collection Date: 9/11/2016 2:45:00 PM
Lab ID: 1609601-005 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
1,1-Dichloroethane	6.2	0.54	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
1,1-Dichloroethene	12	0.54	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
2,2-Dichloropropane	ND	0.83	10		µg/L	5	9/15/2016 4:15:45 PM	W37240
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
2-Hexanone	ND	4.2	50		µg/L	5	9/15/2016 4:15:45 PM	W37240
Isopropylbenzene	24	0.52	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
4-Isopropyltoluene	3.3	0.70	5.0	J	µg/L	5	9/15/2016 4:15:45 PM	W37240
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	9/15/2016 4:15:45 PM	W37240
Methylene Chloride	ND	0.94	15		µg/L	5	9/15/2016 4:15:45 PM	W37240
n-Butylbenzene	5.5	0.80	15	J	µg/L	5	9/15/2016 4:15:45 PM	W37240
n-Propylbenzene	54	0.66	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
sec-Butylbenzene	3.8	0.62	5.0	J	µg/L	5	9/15/2016 4:15:45 PM	W37240
Styrene	0.58	0.55	5.0	J	µg/L	5	9/15/2016 4:15:45 PM	W37240
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	9/15/2016 4:15:45 PM	W37240
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	9/15/2016 4:15:45 PM	W37240
Vinyl chloride	ND	0.98	5.0		µg/L	5	9/15/2016 4:15:45 PM	W37240
Xylenes, Total	760	1.8	7.5		µg/L	5	9/15/2016 4:15:45 PM	W37240
Surr: 1,2-Dichloroethane-d4	95.7	0	70-130		%Rec	5	9/15/2016 4:15:45 PM	W37240
Surr: 4-Bromofluorobenzene	94.0	0	70-130		%Rec	5	9/15/2016 4:15:45 PM	W37240
Surr: Dibromofluoromethane	98.9	0	70-130		%Rec	5	9/15/2016 4:15:45 PM	W37240
Surr: Toluene-d8	94.2	0	70-130		%Rec	5	9/15/2016 4:15:45 PM	W37240
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	

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Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	10	0.075	0.25		mg/L	5	9/15/2016 4:15:45 PM	G37240
Surr: BFB	96.0	0	70-130		%Rec	5	9/15/2016 4:15:45 PM	G37240

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-10
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 3:00:00 PM
Lab ID: 1609601-006 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	6.0	0.69	1.0		mg/L	1	9/14/2016 4:58:50 PM	27491
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/14/2016 4:58:50 PM	27491
Surr: DNOP	135	0	77.1-144		%Rec	1	9/14/2016 4:58:50 PM	27491
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	ND	1.0	2.0		mg/L	20	9/18/2016 1:55:06 PM	R37299
Chloride	240	1.0	10		mg/L	20	9/18/2016 1:55:06 PM	R37299
Bromide	0.79	0.22	0.50		mg/L	5	9/18/2016 1:42:42 PM	R37299
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5	H	mg/L	5	9/18/2016 1:42:42 PM	R37299
Sulfate	ND	0.71	2.5		mg/L	5	9/18/2016 1:42:42 PM	R37299
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/18/2016 7:30:10 PM	R37299
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	11	0.066	0.10	*	mg/L	50	9/29/2016 4:12:19 PM	F37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 4:08:50 PM	F37552
Calcium	390	2.5	5.0		mg/L	5	9/29/2016 4:10:31 PM	F37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 4:08:50 PM	F37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 4:08:50 PM	F37552
Iron	26	1.0	1.0	*	mg/L	50	9/29/2016 4:12:19 PM	F37552
Magnesium	95	0.50	1.0		mg/L	1	9/29/2016 4:08:50 PM	F37552
Manganese	12	0.016	0.10	*	mg/L	50	9/29/2016 4:12:19 PM	F37552
Potassium	0.82	0.50	1.0	J	mg/L	1	9/29/2016 4:08:50 PM	F37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 4:08:50 PM	F37552
Sodium	330	2.5	5.0		mg/L	5	9/29/2016 4:10:31 PM	F37552
Zinc	0.0029	0.0028	0.010	J	mg/L	1	9/29/2016 4:08:50 PM	F37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	11	0.016	0.040	*	mg/L	20	10/4/2016 4:25:35 PM	27665
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 8:03:20 PM	27665
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 8:03:20 PM	27665
Copper	ND	0.0030	0.0060		mg/L	1	10/3/2016 8:03:20 PM	27665
Iron	28	1.0	1.0	*	mg/L	50	10/4/2016 4:27:37 PM	27665
Manganese	12	0.0055	0.040	*	mg/L	20	10/4/2016 4:25:35 PM	27665
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 8:03:20 PM	27665
Zinc	0.0027	0.0027	0.010	J	mg/L	1	10/3/2016 8:03:20 PM	27665
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0082	0.00014	0.0010		mg/L	1	9/23/2016 12:34:06 PM	A37462
Lead	0.00086	0.00017	0.00050		mg/L	1	9/23/2016 12:34:06 PM	A37462
Selenium	0.0066	0.00021	0.0010		mg/L	1	9/23/2016 12:34:06 PM	A37462
Uranium	0.00091	0.000051	0.00050		mg/L	1	9/23/2016 12:34:06 PM	A37462

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-10
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 3:00:00 PM
Lab ID: 1609601-006 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0083	0.00021	0.0010		mg/L	1	9/26/2016 2:15:13 PM	27665
Lead	0.0018	0.000081	0.00050		mg/L	1	9/26/2016 2:15:13 PM	27665
Selenium	0.0058	0.0019	0.010	J	mg/L	10	9/26/2016 6:19:35 PM	27665
Uranium	0.0012	0.00017	0.00050		mg/L	1	9/26/2016 5:55:30 PM	27665
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:35:48 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Aniline	60	2.4	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Benzoic acid	50	2.6	20		µg/L	1	9/17/2016 8:39:41 PM	27514
Benzyl alcohol	6.2	3.0	10	J	µg/L	1	9/17/2016 8:39:41 PM	27514
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Bis(2-ethylhexyl)phthalate	3.7	2.6	10	J	µg/L	1	9/17/2016 8:39:41 PM	27514
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Carbazole	4.4	2.3	10	J	µg/L	1	9/17/2016 8:39:41 PM	27514
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 8:39:41 PM	27514
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 8:39:41 PM	27514
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 8:39:41 PM	27514
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 8:39:41 PM	27514
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Di-n-octyl phthalate	5.0	2.0	10	J	µg/L	1	9/17/2016 8:39:41 PM	27514
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 8:39:41 PM	27514
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 8:39:41 PM	27514
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 8:39:41 PM	27514

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-10
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 3:00:00 PM
Lab ID: 1609601-006 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 8:39:41 PM	27514
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Dimethyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 8:39:41 PM	27514
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 8:39:41 PM	27514
2,4-Dimethylphenol	200	3.0	10		µg/L	1	9/17/2016 8:39:41 PM	27514
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 8:39:41 PM	27514
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 8:39:41 PM	27514
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 8:39:41 PM	27514
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 8:39:41 PM	27514
1-Methylnaphthalene	51	2.9	10		µg/L	1	9/17/2016 8:39:41 PM	27514
2-Methylnaphthalene	77	2.9	10		µg/L	1	9/17/2016 8:39:41 PM	27514
2-Methylphenol	690	13	50		µg/L	5	9/19/2016 4:46:18 PM	27514
3+4-Methylphenol	1100	11	50		µg/L	5	9/19/2016 4:46:18 PM	27514
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 8:39:41 PM	27514
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 8:39:41 PM	27514
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Naphthalene	150	2.6	10		µg/L	1	9/17/2016 8:39:41 PM	27514
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 8:39:41 PM	27514
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 8:39:41 PM	27514
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 8:39:41 PM	27514
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 8:39:41 PM	27514
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 8:39:41 PM	27514
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Phenol	260	9.9	50		µg/L	5	9/19/2016 4:46:18 PM	27514
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 8:39:41 PM	27514
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 8:39:41 PM	27514
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 8:39:41 PM	27514

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-10
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 3:00:00 PM
Lab ID: 1609601-006
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 8:39:41 PM	27514
Surr: 2-Fluorophenol	18.3	0	15-123		%Rec	1	9/17/2016 8:39:41 PM	27514
Surr: Phenol-d5	44.9	0	15-124		%Rec	1	9/17/2016 8:39:41 PM	27514
Surr: 2,4,6-Tribromophenol	100	0	18.4-134		%Rec	1	9/17/2016 8:39:41 PM	27514
Surr: Nitrobenzene-d5	83.5	0	28.8-134		%Rec	1	9/17/2016 8:39:41 PM	27514
Surr: 2-Fluorobiphenyl	84.9	0	35.9-125		%Rec	1	9/17/2016 8:39:41 PM	27514
Surr: 4-Terphenyl-d14	55.9	0	15-146		%Rec	1	9/17/2016 8:39:41 PM	27514
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	16000	96	1000		µg/L	1000	9/15/2016 11:55:27 PM	W37240
Toluene	20000	120	1000		µg/L	1000	9/15/2016 11:55:27 PM	W37240
Ethylbenzene	1600	11	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
Methyl tert-butyl ether (MTBE)	ND	21	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
1,2,4-Trimethylbenzene	840	11	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
1,3,5-Trimethylbenzene	200	12	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
1,2-Dichloroethane (EDC)	ND	12	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
1,2-Dibromoethane (EDB)	ND	11	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
Naphthalene	350	9.3	200		µg/L	100	9/15/2016 4:44:33 PM	W37240
1-Methylnaphthalene	150	20	400	J	µg/L	100	9/15/2016 4:44:33 PM	W37240
2-Methylnaphthalene	160	16	400	J	µg/L	100	9/15/2016 4:44:33 PM	W37240
Acetone	ND	490	1000		µg/L	100	9/15/2016 4:44:33 PM	W37240
Bromobenzene	ND	9.8	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
Bromodichloromethane	ND	14	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
Bromoform	ND	10	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
Bromomethane	ND	78	300		µg/L	100	9/15/2016 4:44:33 PM	W37240
2-Butanone	1300	74	1000		µg/L	100	9/15/2016 4:44:33 PM	W37240
Carbon disulfide	ND	60	1000		µg/L	100	9/15/2016 4:44:33 PM	W37240
Carbon Tetrachloride	ND	11	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
Chlorobenzene	ND	11	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
Chloroethane	ND	19	200		µg/L	100	9/15/2016 4:44:33 PM	W37240
Chloroform	ND	8.9	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
Chloromethane	ND	21	300		µg/L	100	9/15/2016 4:44:33 PM	W37240
2-Chlorotoluene	ND	40	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
4-Chlorotoluene	ND	13	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
cis-1,2-DCE	32	12	100	J	µg/L	100	9/15/2016 4:44:33 PM	W37240
cis-1,3-Dichloropropene	ND	11	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
1,2-Dibromo-3-chloropropane	ND	23	200		µg/L	100	9/15/2016 4:44:33 PM	W37240
Dibromochloromethane	ND	8.7	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
Dibromomethane	ND	12	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
1,2-Dichlorobenzene	ND	40	100		µg/L	100	9/15/2016 4:44:33 PM	W37240

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Client Sample ID: MKTF-10
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 3:00:00 PM
Lab ID: 1609601-006 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichlorobenzene	ND	14	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
1,4-Dichlorobenzene	ND	14	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
Dichlorodifluoromethane	ND	36	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
1,1-Dichloroethane	ND	11	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
1,1-Dichloroethene	ND	11	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
1,2-Dichloropropane	ND	11	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
1,3-Dichloropropane	ND	16	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
2,2-Dichloropropane	ND	17	200		µg/L	100	9/15/2016 4:44:33 PM	W37240
1,1-Dichloropropene	ND	13	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
Hexachlorobutadiene	ND	20	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
2-Hexanone	ND	84	1000		µg/L	100	9/15/2016 4:44:33 PM	W37240
Isopropylbenzene	42	10	100	J	µg/L	100	9/15/2016 4:44:33 PM	W37240
4-Isopropyltoluene	ND	14	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
4-Methyl-2-pentanone	120	43	1000	J	µg/L	100	9/15/2016 4:44:33 PM	W37240
Methylene Chloride	ND	19	300		µg/L	100	9/15/2016 4:44:33 PM	W37240
n-Butylbenzene	ND	16	300		µg/L	100	9/15/2016 4:44:33 PM	W37240
n-Propylbenzene	120	13	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
sec-Butylbenzene	ND	12	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
Styrene	ND	11	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
tert-Butylbenzene	ND	12	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
1,1,1,2-Tetrachloroethane	ND	11	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
1,1,2,2-Tetrachloroethane	ND	13	200		µg/L	100	9/15/2016 4:44:33 PM	W37240
Tetrachloroethene (PCE)	ND	15	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
trans-1,2-DCE	ND	40	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
trans-1,3-Dichloropropene	ND	10	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
1,2,3-Trichlorobenzene	ND	11	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
1,2,4-Trichlorobenzene	ND	13	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
1,1,1-Trichloroethane	ND	9.1	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
1,1,2-Trichloroethane	ND	13	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
Trichloroethene (TCE)	ND	18	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
Trichlorofluoromethane	ND	20	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
1,2,3-Trichloropropane	ND	20	200		µg/L	100	9/15/2016 4:44:33 PM	W37240
Vinyl chloride	ND	20	100		µg/L	100	9/15/2016 4:44:33 PM	W37240
Xylenes, Total	7300	37	150		µg/L	100	9/15/2016 4:44:33 PM	W37240
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	100	9/15/2016 4:44:33 PM	W37240
Surr: 4-Bromofluorobenzene	95.1	0	70-130		%Rec	100	9/15/2016 4:44:33 PM	W37240
Surr: Dibromofluoromethane	110	0	70-130		%Rec	100	9/15/2016 4:44:33 PM	W37240
Surr: Toluene-d8	94.8	0	70-130		%Rec	100	9/15/2016 4:44:33 PM	W37240
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-10
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 3:00:00 PM
Lab ID: 1609601-006 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	110	1.5	5.0		mg/L	100	9/15/2016 4:44:33 PM	G37240
Surr: BFB	97.0	0	70-130		%Rec	100	9/15/2016 4:44:33 PM	G37240

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-09
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 4:20:00 PM
Lab ID: 1609601-007 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	2.3	0.69	1.0		mg/L	1	9/14/2016 5:20:31 PM	27491
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/14/2016 5:20:31 PM	27491
Surr: DNOP	141	0	77.1-144		%Rec	1	9/14/2016 5:20:31 PM	27491
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.26	0.050	0.10		mg/L	1	9/18/2016 2:32:20 PM	R37299
Chloride	160	1.0	10		mg/L	20	9/18/2016 2:44:45 PM	R37299
Bromide	1.2	0.044	0.10		mg/L	1	9/18/2016 2:32:20 PM	R37299
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/18/2016 2:32:20 PM	R37299
Sulfate	57	2.8	10		mg/L	20	9/18/2016 2:44:45 PM	R37299
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/18/2016 7:42:35 PM	R37299
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.52	0.0013	0.0020		mg/L	1	9/29/2016 4:14:06 PM	F37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 4:14:06 PM	F37552
Calcium	140	2.5	5.0		mg/L	5	9/29/2016 4:21:54 PM	F37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 4:14:06 PM	F37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 4:14:06 PM	F37552
Iron	0.81	0.020	0.020	*	mg/L	1	9/29/2016 4:14:06 PM	F37552
Magnesium	30	0.50	1.0		mg/L	1	9/29/2016 4:14:06 PM	F37552
Manganese	3.7	0.0016	0.010	*	mg/L	5	9/29/2016 4:21:54 PM	F37552
Potassium	ND	0.50	1.0		mg/L	1	9/29/2016 4:14:06 PM	F37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 4:14:06 PM	F37552
Sodium	230	2.5	5.0		mg/L	5	9/29/2016 4:21:54 PM	F37552
Zinc	ND	0.0028	0.010		mg/L	1	9/29/2016 4:14:06 PM	F37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.52	0.00079	0.0020		mg/L	1	10/3/2016 8:14:35 PM	27665
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 8:14:35 PM	27665
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 8:14:35 PM	27665
Copper	ND	0.0030	0.0060		mg/L	1	10/3/2016 8:14:35 PM	27665
Iron	2.3	0.10	0.10	*	mg/L	5	10/3/2016 8:16:18 PM	27665
Manganese	3.8	0.0014	0.010	*	mg/L	5	10/3/2016 8:16:18 PM	27665
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 8:14:35 PM	27665
Zinc	ND	0.0027	0.010		mg/L	1	10/3/2016 8:14:35 PM	27665
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0032	0.00069	0.0050	J	mg/L	5	9/23/2016 2:56:21 PM	C37462
Lead	0.00023	0.00017	0.00050	J	mg/L	1	9/23/2016 12:37:09 PM	A37462
Selenium	0.0075	0.0021	0.010	J	mg/L	10	9/23/2016 2:59:25 PM	C37462
Uranium	0.0050	0.000051	0.00050		mg/L	1	9/23/2016 12:37:09 PM	A37462

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-09
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 4:20:00 PM
Lab ID: 1609601-007
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0033	0.0011	0.0050	J	mg/L	5	9/26/2016 6:28:40 PM	27665
Lead	0.0019	0.000081	0.00050		mg/L	1	9/26/2016 2:20:21 PM	27665
Selenium	0.0068	0.0019	0.010	J	mg/L	10	9/26/2016 6:31:40 PM	27665
Uranium	0.0064	0.00017	0.00050		mg/L	1	9/26/2016 5:58:31 PM	27665
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:37:49 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	4.6	2.6	10	J	µg/L	1	9/17/2016 9:07:32 PM	27514
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Aniline	ND	2.4	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Benzoic acid	ND	2.6	20		µg/L	1	9/17/2016 9:07:32 PM	27514
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Bis(2-ethylhexyl)phthalate	3.5	2.6	10	J	µg/L	1	9/17/2016 9:07:32 PM	27514
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Carbazole	11	2.3	10		µg/L	1	9/17/2016 9:07:32 PM	27514
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 9:07:32 PM	27514
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 9:07:32 PM	27514
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 9:07:32 PM	27514
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 9:07:32 PM	27514
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Di-n-octyl phthalate	5.0	2.0	10	J	µg/L	1	9/17/2016 9:07:32 PM	27514
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 9:07:32 PM	27514
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 9:07:32 PM	27514
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 9:07:32 PM	27514

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-09
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 4:20:00 PM
Lab ID: 1609601-007
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 9:07:32 PM	27514
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Dimethyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 9:07:32 PM	27514
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 9:07:32 PM	27514
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 9:07:32 PM	27514
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 9:07:32 PM	27514
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 9:07:32 PM	27514
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 9:07:32 PM	27514
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Fluorene	4.4	2.7	10	J	µg/L	1	9/17/2016 9:07:32 PM	27514
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 9:07:32 PM	27514
1-Methylnaphthalene	64	2.9	10		µg/L	1	9/17/2016 9:07:32 PM	27514
2-Methylnaphthalene	5.2	2.9	10	J	µg/L	1	9/17/2016 9:07:32 PM	27514
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 9:07:32 PM	27514
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 9:07:32 PM	27514
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 9:07:32 PM	27514
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 9:07:32 PM	27514
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Naphthalene	23	2.6	10		µg/L	1	9/17/2016 9:07:32 PM	27514
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 9:07:32 PM	27514
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 9:07:32 PM	27514
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 9:07:32 PM	27514
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 9:07:32 PM	27514
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Pentachlorophenol	9.4	2.3	20	J	µg/L	1	9/17/2016 9:07:32 PM	27514
Phenanthrene	6.5	2.6	10	J	µg/L	1	9/17/2016 9:07:32 PM	27514
Phenol	12	2.0	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Pyrene	7.1	3.1	10	J	µg/L	1	9/17/2016 9:07:32 PM	27514
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 9:07:32 PM	27514
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 9:07:32 PM	27514
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 9:07:32 PM	27514

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-09
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 4:20:00 PM
Lab ID: 1609601-007 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 9:07:32 PM	27514
Surr: 2-Fluorophenol	59.3	0	15-123		%Rec	1	9/17/2016 9:07:32 PM	27514
Surr: Phenol-d5	51.4	0	15-124		%Rec	1	9/17/2016 9:07:32 PM	27514
Surr: 2,4,6-Tribromophenol	98.9	0	18.4-134		%Rec	1	9/17/2016 9:07:32 PM	27514
Surr: Nitrobenzene-d5	83.4	0	28.8-134		%Rec	1	9/17/2016 9:07:32 PM	27514
Surr: 2-Fluorobiphenyl	83.9	0	35.9-125		%Rec	1	9/17/2016 9:07:32 PM	27514
Surr: 4-Terphenyl-d14	60.1	0	15-146		%Rec	1	9/17/2016 9:07:32 PM	27514
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	2000	9.6	100		µg/L	100	9/16/2016 12:24:24 AM	W37240
Toluene	30	1.2	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
Ethylbenzene	220	1.1	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
Methyl tert-butyl ether (MTBE)	620	2.1	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
1,2,4-Trimethylbenzene	53	1.1	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
1,3,5-Trimethylbenzene	ND	1.2	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
1,2-Dichloroethane (EDC)	ND	1.2	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
Naphthalene	39	0.93	20		µg/L	10	9/15/2016 5:13:15 PM	W37240
1-Methylnaphthalene	76	2.0	40		µg/L	10	9/15/2016 5:13:15 PM	W37240
2-Methylnaphthalene	7.5	1.6	40	J	µg/L	10	9/15/2016 5:13:15 PM	W37240
Acetone	ND	49	100		µg/L	10	9/15/2016 5:13:15 PM	W37240
Bromobenzene	ND	0.98	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
Bromodichloromethane	ND	1.4	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
Bromoform	ND	1.0	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
Bromomethane	ND	7.8	30		µg/L	10	9/15/2016 5:13:15 PM	W37240
2-Butanone	ND	7.4	100		µg/L	10	9/15/2016 5:13:15 PM	W37240
Carbon disulfide	ND	6.0	100		µg/L	10	9/15/2016 5:13:15 PM	W37240
Carbon Tetrachloride	ND	1.1	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
Chlorobenzene	ND	1.1	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
Chloroethane	ND	1.9	20		µg/L	10	9/15/2016 5:13:15 PM	W37240
Chloroform	ND	0.89	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
Chloromethane	ND	2.1	30		µg/L	10	9/15/2016 5:13:15 PM	W37240
2-Chlorotoluene	ND	4.0	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
4-Chlorotoluene	ND	1.3	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
cis-1,2-DCE	32	1.2	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	9/15/2016 5:13:15 PM	W37240
Dibromochloromethane	ND	0.87	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
Dibromomethane	ND	1.2	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	9/15/2016 5:13:15 PM	W37240

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-09
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 4:20:00 PM
Lab ID: 1609601-007
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
1,1-Dichloroethane	22	1.1	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
1,1-Dichloroethene	24	1.1	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
1,2-Dichloropropane	ND	1.1	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
1,3-Dichloropropane	ND	1.6	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
2,2-Dichloropropane	ND	1.7	20		µg/L	10	9/15/2016 5:13:15 PM	W37240
1,1-Dichloropropene	ND	1.3	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
Hexachlorobutadiene	ND	2.0	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
2-Hexanone	ND	8.4	100		µg/L	10	9/15/2016 5:13:15 PM	W37240
Isopropylbenzene	16	1.0	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
4-Isopropyltoluene	ND	1.4	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	9/15/2016 5:13:15 PM	W37240
Methylene Chloride	ND	1.9	30		µg/L	10	9/15/2016 5:13:15 PM	W37240
n-Butylbenzene	5.0	1.6	30	J	µg/L	10	9/15/2016 5:13:15 PM	W37240
n-Propylbenzene	27	1.3	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
sec-Butylbenzene	3.1	1.2	10	J	µg/L	10	9/15/2016 5:13:15 PM	W37240
Styrene	ND	1.1	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
tert-Butylbenzene	ND	1.2	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	9/15/2016 5:13:15 PM	W37240
Tetrachloroethene (PCE)	3.8	1.5	10	J	µg/L	10	9/15/2016 5:13:15 PM	W37240
trans-1,2-DCE	ND	4.0	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
1,1,1-Trichloroethane	37	0.91	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
Trichloroethene (TCE)	4.5	1.8	10	J	µg/L	10	9/15/2016 5:13:15 PM	W37240
Trichlorofluoromethane	ND	2.0	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	9/15/2016 5:13:15 PM	W37240
Vinyl chloride	ND	2.0	10		µg/L	10	9/15/2016 5:13:15 PM	W37240
Xylenes, Total	59	3.7	15		µg/L	10	9/15/2016 5:13:15 PM	W37240
Surr: 1,2-Dichloroethane-d4	97.9	0	70-130		%Rec	10	9/15/2016 5:13:15 PM	W37240
Surr: 4-Bromofluorobenzene	98.6	0	70-130		%Rec	10	9/15/2016 5:13:15 PM	W37240
Surr: Dibromofluoromethane	99.9	0	70-130		%Rec	10	9/15/2016 5:13:15 PM	W37240
Surr: Toluene-d8	95.0	0	70-130		%Rec	10	9/15/2016 5:13:15 PM	W37240
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	

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Collection Date: 9/11/2016 4:20:00 PM
Lab ID: 1609601-007
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	6.7	0.15	0.50		mg/L	10	9/15/2016 5:13:15 PM	G37240
Surr: BFB	102	0	70-130		%Rec	10	9/15/2016 5:13:15 PM	G37240

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-15
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 4:45:00 PM
Lab ID: 1609601-008 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	17	0.69	1.0		mg/L	1	9/14/2016 5:42:23 PM	27491
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/14/2016 5:42:23 PM	27491
Surr: DNOP	136	0	77.1-144		%Rec	1	9/14/2016 5:42:23 PM	27491
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	ND	1.0	2.0		mg/L	20	9/18/2016 3:09:34 PM	R37299
Chloride	3100	25	250		mg/L	500	9/23/2016 5:53:38 PM	R37469
Bromide	0.84	0.22	0.50		mg/L	5	9/18/2016 2:57:09 PM	R37299
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5	H	mg/L	5	9/18/2016 2:57:09 PM	R37299
Sulfate	ND	0.71	2.5		mg/L	5	9/18/2016 2:57:09 PM	R37299
Nitrate+Nitrite as N	ND	1.8	4.0		mg/L	20	9/23/2016 5:03:59 PM	R37469
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	23	0.066	0.10	*	mg/L	50	9/29/2016 4:27:14 PM	F37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 4:23:47 PM	F37552
Calcium	660	25	50		mg/L	50	9/29/2016 4:27:14 PM	F37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 4:23:47 PM	F37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 4:23:47 PM	F37552
Iron	32	1.0	1.0	*	mg/L	50	9/29/2016 4:27:14 PM	F37552
Magnesium	190	2.5	5.0		mg/L	5	9/29/2016 4:25:36 PM	F37552
Manganese	7.6	0.016	0.10	*	mg/L	50	9/29/2016 4:27:14 PM	F37552
Potassium	3.0	0.50	1.0		mg/L	1	9/29/2016 4:23:47 PM	F37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 4:23:47 PM	F37552
Sodium	1600	25	50		mg/L	50	9/29/2016 4:27:14 PM	F37552
Zinc	0.040	0.0028	0.010		mg/L	1	9/29/2016 4:23:47 PM	F37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	23	0.040	0.10	*	mg/L	50	10/4/2016 4:29:38 PM	27665
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 8:18:19 PM	27665
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 8:18:19 PM	27665
Copper	ND	0.0030	0.0060		mg/L	1	10/3/2016 8:18:19 PM	27665
Iron	35	1.0	1.0	*	mg/L	50	10/4/2016 4:29:38 PM	27665
Manganese	7.7	0.014	0.10	*	mg/L	50	10/4/2016 4:29:38 PM	27665
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 8:18:19 PM	27665
Zinc	0.018	0.0027	0.010		mg/L	1	10/3/2016 8:18:19 PM	27665
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0027	0.00069	0.0050	J	mg/L	5	9/23/2016 3:02:28 PM	C37462
Lead	0.00048	0.00017	0.00050	J	mg/L	1	9/23/2016 12:40:13 PM	A37462
Selenium	0.0091	0.0042	0.020	J	mg/L	20	9/23/2016 3:11:43 PM	C37462
Uranium	0.00023	0.000051	0.00050	J	mg/L	1	9/23/2016 12:40:13 PM	A37462

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-15
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 4:45:00 PM
Lab ID: 1609601-008
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0022	0.0011	0.0050	J	mg/L	5	9/26/2016 6:34:40 PM	27665
Lead	0.0059	0.00041	0.0025		mg/L	5	9/26/2016 6:34:40 PM	27665
Selenium	0.0054	0.0019	0.010	J	mg/L	10	9/26/2016 6:37:41 PM	27665
Uranium	ND	0.00087	0.0025		mg/L	5	9/26/2016 6:34:40 PM	27665
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:39:50 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Acenaphthylene	ND	2.4	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Aniline	ND	2.4	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Anthracene	ND	2.5	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Azobenzene	ND	2.7	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Benzoic acid	11	2.6	20	J	µg/L	1	9/19/2016 1:31:49 PM	27514
Benzyl alcohol	ND	3.0	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Bis(2-ethylhexyl)phthalate	3.1	2.6	10	J	µg/L	1	9/19/2016 1:31:49 PM	27514
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Carbazole	4.0	2.3	10	J	µg/L	1	9/19/2016 1:31:49 PM	27514
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/19/2016 1:31:49 PM	27514
4-Chloroaniline	ND	2.7	10		µg/L	1	9/19/2016 1:31:49 PM	27514
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/19/2016 1:31:49 PM	27514
2-Chlorophenol	ND	2.2	10		µg/L	1	9/19/2016 1:31:49 PM	27514
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Chrysene	ND	2.8	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Di-n-octyl phthalate	4.5	2.0	10	J	µg/L	1	9/19/2016 1:31:49 PM	27514
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Dibenzofuran	ND	2.5	10		µg/L	1	9/19/2016 1:31:49 PM	27514
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/19/2016 1:31:49 PM	27514
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/19/2016 1:31:49 PM	27514

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
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Collection Date: 9/11/2016 4:45:00 PM
Lab ID: 1609601-008
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/19/2016 1:31:49 PM	27514
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Diethyl phthalate	ND	2.7	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Dimethyl phthalate	17	2.4	10		µg/L	1	9/19/2016 1:31:49 PM	27514
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/19/2016 1:31:49 PM	27514
2,4-Dimethylphenol	230	3.0	10		µg/L	1	9/19/2016 1:31:49 PM	27514
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/19/2016 1:31:49 PM	27514
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/19/2016 1:31:49 PM	27514
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/19/2016 1:31:49 PM	27514
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Fluoranthene	ND	2.6	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Fluorene	ND	2.7	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Hexachloroethane	ND	2.4	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Isophorone	ND	2.6	10		µg/L	1	9/19/2016 1:31:49 PM	27514
1-Methylnaphthalene	13	2.9	10		µg/L	1	9/19/2016 1:31:49 PM	27514
2-Methylnaphthalene	14	2.9	10		µg/L	1	9/19/2016 1:31:49 PM	27514
2-Methylphenol	1800	130	500		µg/L	50	9/27/2016 9:19:46 AM	27514
3+4-Methylphenol	2600	110	500		µg/L	50	9/27/2016 9:19:46 AM	27514
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/19/2016 1:31:49 PM	27514
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/19/2016 1:31:49 PM	27514
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Naphthalene	53	2.6	10		µg/L	1	9/19/2016 1:31:49 PM	27514
2-Nitroaniline	ND	2.8	10		µg/L	1	9/19/2016 1:31:49 PM	27514
3-Nitroaniline	ND	2.9	10		µg/L	1	9/19/2016 1:31:49 PM	27514
4-Nitroaniline	ND	2.6	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Nitrobenzene	ND	2.8	10		µg/L	1	9/19/2016 1:31:49 PM	27514
2-Nitrophenol	ND	2.4	10		µg/L	1	9/19/2016 1:31:49 PM	27514
4-Nitrophenol	ND	2.6	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Pentachlorophenol	ND	2.3	20		µg/L	1	9/19/2016 1:31:49 PM	27514
Phenanthrene	ND	2.6	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Phenol	5800	99	500		µg/L	50	9/27/2016 9:19:46 AM	27514
Pyrene	ND	3.1	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Pyridine	ND	2.2	10		µg/L	1	9/19/2016 1:31:49 PM	27514
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/19/2016 1:31:49 PM	27514
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/19/2016 1:31:49 PM	27514

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Collection Date: 9/11/2016 4:45:00 PM
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Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/19/2016 1:31:49 PM	27514
Surr: 2-Fluorophenol	15.9	0	15-123		%Rec	1	9/19/2016 1:31:49 PM	27514
Surr: Phenol-d5	52.6	0	15-124		%Rec	1	9/19/2016 1:31:49 PM	27514
Surr: 2,4,6-Tribromophenol	101	0	18.4-134		%Rec	1	9/19/2016 1:31:49 PM	27514
Surr: Nitrobenzene-d5	88.4	0	28.8-134		%Rec	1	9/19/2016 1:31:49 PM	27514
Surr: 2-Fluorobiphenyl	86.4	0	35.9-125		%Rec	1	9/19/2016 1:31:49 PM	27514
Surr: 4-Terphenyl-d14	55.0	0	15-146		%Rec	1	9/19/2016 1:31:49 PM	27514
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	24000	48	500		µg/L	500	9/16/2016 12:53:05 AM	W37240
Toluene	16000	59	500		µg/L	500	9/16/2016 12:53:05 AM	W37240
Ethylbenzene	2000	5.6	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
Methyl tert-butyl ether (MTBE)	93	11	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
1,2,4-Trimethylbenzene	570	5.5	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
1,3,5-Trimethylbenzene	170	5.8	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
1,2-Dichloroethane (EDC)	ND	5.8	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
1,2-Dibromoethane (EDB)	ND	5.6	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
Naphthalene	86	4.6	100	J	µg/L	50	9/15/2016 1:23:18 PM	W37240
1-Methylnaphthalene	15	10	200	J	µg/L	50	9/15/2016 1:23:18 PM	W37240
2-Methylnaphthalene	14	7.9	200	J	µg/L	50	9/15/2016 1:23:18 PM	W37240
Acetone	1200	250	500		µg/L	50	9/15/2016 1:23:18 PM	W37240
Bromobenzene	ND	4.9	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
Bromodichloromethane	ND	7.0	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
Bromoform	ND	5.1	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
Bromomethane	ND	39	150		µg/L	50	9/15/2016 1:23:18 PM	W37240
2-Butanone	1300	37	500		µg/L	50	9/15/2016 1:23:18 PM	W37240
Carbon disulfide	ND	30	500		µg/L	50	9/15/2016 1:23:18 PM	W37240
Carbon Tetrachloride	ND	5.4	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
Chlorobenzene	ND	5.7	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
Chloroethane	ND	9.6	100		µg/L	50	9/15/2016 1:23:18 PM	W37240
Chloroform	ND	4.4	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
Chloromethane	ND	11	150		µg/L	50	9/15/2016 1:23:18 PM	W37240
2-Chlorotoluene	ND	20	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
4-Chlorotoluene	ND	6.4	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
cis-1,2-DCE	ND	6.2	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
cis-1,3-Dichloropropene	ND	5.3	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
1,2-Dibromo-3-chloropropane	ND	12	100		µg/L	50	9/15/2016 1:23:18 PM	W37240
Dibromochloromethane	ND	4.3	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
Dibromomethane	ND	6.0	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
1,2-Dichlorobenzene	ND	20	50		µg/L	50	9/15/2016 1:23:18 PM	W37240

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-15
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 4:45:00 PM
Lab ID: 1609601-008
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichlorobenzene	ND	7.2	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
1,4-Dichlorobenzene	ND	7.1	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
Dichlorodifluoromethane	ND	18	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
1,1-Dichloroethane	ND	5.4	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
1,1-Dichloroethene	ND	5.4	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
1,2-Dichloropropane	ND	5.5	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
1,3-Dichloropropane	ND	7.8	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
2,2-Dichloropropane	ND	8.3	100		µg/L	50	9/15/2016 1:23:18 PM	W37240
1,1-Dichloropropene	ND	6.7	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
Hexachlorobutadiene	ND	9.9	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
2-Hexanone	ND	42	500		µg/L	50	9/15/2016 1:23:18 PM	W37240
Isopropylbenzene	120	5.2	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
4-Isopropyltoluene	ND	7.0	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
4-Methyl-2-pentanone	83	21	500	J	µg/L	50	9/15/2016 1:23:18 PM	W37240
Methylene Chloride	ND	9.4	150		µg/L	50	9/15/2016 1:23:18 PM	W37240
n-Butylbenzene	ND	8.0	150		µg/L	50	9/15/2016 1:23:18 PM	W37240
n-Propylbenzene	140	6.6	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
sec-Butylbenzene	7.8	6.2	50	J	µg/L	50	9/15/2016 1:23:18 PM	W37240
Styrene	ND	5.5	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
tert-Butylbenzene	ND	5.8	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
1,1,1,2-Tetrachloroethane	ND	5.6	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
1,1,2,2-Tetrachloroethane	ND	6.4	100		µg/L	50	9/15/2016 1:23:18 PM	W37240
Tetrachloroethene (PCE)	ND	7.6	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
trans-1,2-DCE	ND	20	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
trans-1,3-Dichloropropene	ND	5.2	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
1,2,3-Trichlorobenzene	ND	5.6	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
1,2,4-Trichlorobenzene	ND	6.6	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
1,1,1-Trichloroethane	ND	4.6	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
1,1,2-Trichloroethane	ND	6.4	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
Trichloroethene (TCE)	ND	8.8	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
Trichlorofluoromethane	ND	10	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
1,2,3-Trichloropropane	ND	10	100		µg/L	50	9/15/2016 1:23:18 PM	W37240
Vinyl chloride	ND	9.8	50		µg/L	50	9/15/2016 1:23:18 PM	W37240
Xylenes, Total	7300	18	75		µg/L	50	9/15/2016 1:23:18 PM	W37240
Surr: 1,2-Dichloroethane-d4	94.3	0	70-130		%Rec	50	9/15/2016 1:23:18 PM	W37240
Surr: 4-Bromofluorobenzene	99.4	0	70-130		%Rec	50	9/15/2016 1:23:18 PM	W37240
Surr: Dibromofluoromethane	102	0	70-130		%Rec	50	9/15/2016 1:23:18 PM	W37240
Surr: Toluene-d8	94.1	0	70-130		%Rec	50	9/15/2016 1:23:18 PM	W37240
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-15
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 4:45:00 PM
Lab ID: 1609601-008
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	110	0.75	2.5		mg/L	50	9/15/2016 1:23:18 PM	G37240
Surr: BFB	101	0	70-130		%Rec	50	9/15/2016 1:23:18 PM	G37240

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-33
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/10/2016 3:20:00 PM
Lab ID: 1609601-009
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/14/2016 6:04:00 PM	27491
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/14/2016 6:04:00 PM	27491
Surr: DNOP	138	0	77.1-144		%Rec	1	9/14/2016 6:04:00 PM	27491
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.13	0.050	0.10		mg/L	1	9/18/2016 3:21:58 PM	R37299
Chloride	94	1.0	10		mg/L	20	9/18/2016 3:34:23 PM	R37299
Bromide	0.49	0.044	0.10		mg/L	1	9/18/2016 3:21:58 PM	R37299
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/18/2016 3:21:58 PM	R37299
Sulfate	340	2.8	10		mg/L	20	9/18/2016 3:34:23 PM	R37299
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/18/2016 8:07:24 PM	R37299
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.043	0.0013	0.0020		mg/L	1	9/29/2016 4:29:11 PM	F37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 4:29:11 PM	F37552
Calcium	90	0.50	1.0		mg/L	1	9/29/2016 4:29:11 PM	F37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 4:29:11 PM	F37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 4:29:11 PM	F37552
Iron	0.020	0.020	0.020		mg/L	1	9/29/2016 4:29:11 PM	F37552
Magnesium	20	0.50	1.0		mg/L	1	9/29/2016 4:29:11 PM	F37552
Manganese	0.13	0.00032	0.0020	*	mg/L	1	9/29/2016 4:29:11 PM	F37552
Potassium	0.74	0.50	1.0	J	mg/L	1	9/29/2016 4:29:11 PM	F37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 4:29:11 PM	F37552
Sodium	300	2.5	5.0		mg/L	5	9/29/2016 4:31:14 PM	F37552
Zinc	ND	0.0028	0.010		mg/L	1	9/29/2016 4:29:11 PM	F37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.091	0.00079	0.0020		mg/L	1	10/3/2016 8:21:54 PM	27665
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 8:21:54 PM	27665
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 8:21:54 PM	27665
Copper	ND	0.0030	0.0060		mg/L	1	10/12/2016 9:08:20 PM	27933
Iron	1.6	0.10	0.10	*	mg/L	5	10/3/2016 8:23:36 PM	27665
Manganese	0.31	0.00027	0.0020	*	mg/L	1	10/3/2016 8:21:54 PM	27665
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 8:21:54 PM	27665
Zinc	0.0075	0.0027	0.010	J	mg/L	1	10/3/2016 8:21:54 PM	27665
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0011	0.00069	0.0050	J	mg/L	5	9/23/2016 3:14:46 PM	C37462
Lead	0.00023	0.00017	0.00050	J	mg/L	1	9/23/2016 12:43:16 PM	A37462
Selenium	0.0035	0.00021	0.0010		mg/L	1	9/23/2016 12:43:16 PM	A37462
Uranium	0.037	0.00026	0.0025	*	mg/L	5	9/23/2016 3:14:46 PM	C37462

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-33
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/10/2016 3:20:00 PM
Lab ID: 1609601-009
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.0011	0.0050		mg/L	5	9/26/2016 6:40:41 PM	27665
Lead	0.0027	0.000081	0.00050		mg/L	1	9/26/2016 2:30:38 PM	27665
Selenium	0.0031	0.00094	0.0050	J	mg/L	5	9/26/2016 6:40:41 PM	27665
Uranium	0.036	0.00087	0.0025	*	mg/L	5	9/26/2016 6:40:41 PM	27665
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:46:07 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Benzoic acid	7.1	2.6	20	J	µg/L	1	9/17/2016 4:30:02 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Bis(2-ethylhexyl)phthalate	3.6	2.6	10	J	µg/L	1	9/17/2016 4:30:02 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Carbazole	ND	2.3	10		µg/L	1	9/17/2016 4:30:02 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 4:30:02 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 4:30:02 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 4:30:02 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 4:30:02 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Di-n-octyl phthalate	3.5	2.0	10	J	µg/L	1	9/17/2016 4:30:02 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 4:30:02 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 4:30:02 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 4:30:02 PM	27489

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-33
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/10/2016 3:20:00 PM
Lab ID: 1609601-009
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 4:30:02 PM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Dimethyl phthalate	2.9	2.4	10	J	µg/L	1	9/17/2016 4:30:02 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 4:30:02 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 4:30:02 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 4:30:02 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 4:30:02 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 4:30:02 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 4:30:02 PM	27489
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 4:30:02 PM	27489
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/17/2016 4:30:02 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 4:30:02 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 4:30:02 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 4:30:02 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 4:30:02 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Naphthalene	ND	2.6	10		µg/L	1	9/17/2016 4:30:02 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 4:30:02 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 4:30:02 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 4:30:02 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 4:30:02 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 4:30:02 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Phenol	ND	2.0	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 4:30:02 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 4:30:02 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 4:30:02 PM	27489

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-33
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/10/2016 3:20:00 PM
Lab ID: 1609601-009
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 4:30:02 PM	27489
Surr: 2-Fluorophenol	20.5	0	15-123		%Rec	1	9/17/2016 4:30:02 PM	27489
Surr: Phenol-d5	18.8	0	15-124		%Rec	1	9/17/2016 4:30:02 PM	27489
Surr: 2,4,6-Tribromophenol	41.1	0	18.4-134		%Rec	1	9/17/2016 4:30:02 PM	27489
Surr: Nitrobenzene-d5	55.8	0	28.8-134		%Rec	1	9/17/2016 4:30:02 PM	27489
Surr: 2-Fluorobiphenyl	50.4	0	35.9-125		%Rec	1	9/17/2016 4:30:02 PM	27489
Surr: 4-Terphenyl-d14	17.6	0	15-146		%Rec	1	9/17/2016 4:30:02 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Toluene	ND	0.12	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Methyl tert-butyl ether (MTBE)	270	2.1	10		µg/L	10	9/16/2016 1:21:42 AM	W37240
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Naphthalene	ND	0.093	2.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Acetone	ND	4.9	10		µg/L	1	9/15/2016 12:54:29 PM	W37240
Bromobenzene	ND	0.098	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Bromoform	ND	0.10	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Bromomethane	ND	0.78	3.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
2-Butanone	ND	0.74	10		µg/L	1	9/15/2016 12:54:29 PM	W37240
Carbon disulfide	ND	0.60	10		µg/L	1	9/15/2016 12:54:29 PM	W37240
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Chloroethane	ND	0.19	2.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Chloroform	ND	0.089	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Chloromethane	ND	0.21	3.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Dibromomethane	ND	0.12	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-33
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/10/2016 3:20:00 PM
Lab ID: 1609601-009
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
2-Hexanone	ND	0.84	10		µg/L	1	9/15/2016 12:54:29 PM	W37240
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/15/2016 12:54:29 PM	W37240
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
sec-Butylbenzene	0.81	0.12	1.0	J	µg/L	1	9/15/2016 12:54:29 PM	W37240
Styrene	ND	0.11	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/15/2016 12:54:29 PM	W37240
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/15/2016 12:54:29 PM	W37240
Surr: 1,2-Dichloroethane-d4	97.7	0	70-130		%Rec	1	9/15/2016 12:54:29 PM	W37240
Surr: 4-Bromofluorobenzene	95.3	0	70-130		%Rec	1	9/15/2016 12:54:29 PM	W37240
Surr: Dibromofluoromethane	104	0	70-130		%Rec	1	9/15/2016 12:54:29 PM	W37240
Surr: Toluene-d8	92.8	0	70-130		%Rec	1	9/15/2016 12:54:29 PM	W37240
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-33
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/10/2016 3:20:00 PM
Lab ID: 1609601-009
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	5.2	0.30	1.0		mg/L	20	9/15/2016 12:54:29 PM	G37240
Surr: BFB	95.2	0	70-130		%Rec	20	9/15/2016 12:54:29 PM	G37240

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-22
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/10/2016 4:00:00 PM
Lab ID: 1609601-010 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	2.7	0.69	1.0		mg/L	1	9/14/2016 6:25:55 PM	27491
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/14/2016 6:25:55 PM	27491
Surr: DNOP	140	0	77.1-144		%Rec	1	9/14/2016 6:25:55 PM	27491
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.23	0.050	0.10		mg/L	1	9/18/2016 3:46:48 PM	R37299
Chloride	98	1.0	10		mg/L	20	9/18/2016 3:59:13 PM	R37299
Bromide	0.71	0.044	0.10		mg/L	1	9/18/2016 3:46:48 PM	R37299
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/18/2016 3:46:48 PM	R37299
Sulfate	4.1	0.14	0.50		mg/L	1	9/18/2016 3:46:48 PM	R37299
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/18/2016 8:19:49 PM	R37299
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	1.1	0.013	0.020		mg/L	10	9/29/2016 4:34:55 PM	F37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 4:33:07 PM	F37552
Calcium	120	5.0	10		mg/L	10	9/29/2016 4:34:55 PM	F37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 4:33:07 PM	F37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 4:33:07 PM	F37552
Iron	2.7	0.20	0.20	*	mg/L	10	9/29/2016 4:34:55 PM	F37552
Magnesium	24	0.50	1.0		mg/L	1	9/29/2016 4:33:07 PM	F37552
Manganese	2.3	0.0032	0.020	*	mg/L	10	9/29/2016 4:34:55 PM	F37552
Potassium	0.71	0.50	1.0	J	mg/L	1	9/29/2016 4:33:07 PM	F37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 4:33:07 PM	F37552
Sodium	250	5.0	10		mg/L	10	9/29/2016 4:34:55 PM	F37552
Zinc	ND	0.0028	0.010		mg/L	1	9/29/2016 4:33:07 PM	F37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	1.3	0.0040	0.010		mg/L	5	10/3/2016 8:27:18 PM	27665
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 8:25:35 PM	27665
Chromium	0.0051	0.0027	0.0060	J	mg/L	1	10/3/2016 8:25:35 PM	27665
Copper	ND	0.0030	0.0060		mg/L	1	10/12/2016 9:10:03 PM	27933
Iron	8.8	0.20	0.20	*	mg/L	10	10/4/2016 4:39:40 PM	27665
Manganese	2.6	0.0014	0.010	*	mg/L	5	10/3/2016 8:27:18 PM	27665
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 8:25:35 PM	27665
Zinc	0.011	0.0027	0.010		mg/L	1	10/3/2016 8:25:35 PM	27665
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0024	0.00014	0.0010		mg/L	1	9/23/2016 1:01:40 PM	B37462
Lead	0.0014	0.00017	0.00050		mg/L	1	9/23/2016 1:01:40 PM	B37462
Selenium	0.0053	0.0021	0.010	J	mg/L	10	9/23/2016 3:17:50 PM	C37462
Uranium	0.0028	0.000051	0.00050		mg/L	1	9/23/2016 1:01:40 PM	B37462

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-22
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/10/2016 4:00:00 PM
Lab ID: 1609601-010
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0032	0.0011	0.0050	J	mg/L	5	9/26/2016 6:43:42 PM	27665
Lead	0.0072	0.000081	0.00050		mg/L	1	9/26/2016 4:40:49 PM	27665
Selenium	0.0045	0.00094	0.0050	J	mg/L	5	9/26/2016 6:43:42 PM	27665
Uranium	0.0040	0.00017	0.00050		mg/L	1	9/26/2016 6:01:31 PM	27665
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:48:09 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Acenaphthylene	ND	2.4	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Aniline	ND	2.4	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Anthracene	ND	2.5	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Azobenzene	ND	2.7	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Benzoic acid	11	2.6	20	J	µg/L	1	9/17/2016 4:57:51 PM	27489
Benzyl alcohol	ND	3.0	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Bis(2-ethylhexyl)phthalate	3.0	2.6	10	J	µg/L	1	9/17/2016 4:57:51 PM	27489
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Carbazole	2.4	2.3	10	J	µg/L	1	9/17/2016 4:57:51 PM	27489
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/17/2016 4:57:51 PM	27489
4-Chloroaniline	ND	2.7	10		µg/L	1	9/17/2016 4:57:51 PM	27489
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/17/2016 4:57:51 PM	27489
2-Chlorophenol	ND	2.2	10		µg/L	1	9/17/2016 4:57:51 PM	27489
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Chrysene	ND	2.8	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Di-n-octyl phthalate	3.4	2.0	10	J	µg/L	1	9/17/2016 4:57:51 PM	27489
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Dibenzofuran	ND	2.5	10		µg/L	1	9/17/2016 4:57:51 PM	27489
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 4:57:51 PM	27489
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/17/2016 4:57:51 PM	27489

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-22
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/10/2016 4:00:00 PM
Lab ID: 1609601-010 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/17/2016 4:57:51 PM	27489
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Diethyl phthalate	ND	2.7	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Dimethyl phthalate	3.0	2.4	10	J	µg/L	1	9/17/2016 4:57:51 PM	27489
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/17/2016 4:57:51 PM	27489
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/17/2016 4:57:51 PM	27489
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/17/2016 4:57:51 PM	27489
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/17/2016 4:57:51 PM	27489
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/17/2016 4:57:51 PM	27489
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Fluoranthene	ND	2.6	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Fluorene	ND	2.7	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Hexachloroethane	ND	2.4	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Isophorone	ND	2.6	10		µg/L	1	9/17/2016 4:57:51 PM	27489
1-Methylnaphthalene	39	2.9	10		µg/L	1	9/17/2016 4:57:51 PM	27489
2-Methylnaphthalene	5.0	2.9	10	J	µg/L	1	9/17/2016 4:57:51 PM	27489
2-Methylphenol	ND	2.5	10		µg/L	1	9/17/2016 4:57:51 PM	27489
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/17/2016 4:57:51 PM	27489
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/17/2016 4:57:51 PM	27489
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/17/2016 4:57:51 PM	27489
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Naphthalene	23	2.6	10		µg/L	1	9/17/2016 4:57:51 PM	27489
2-Nitroaniline	ND	2.8	10		µg/L	1	9/17/2016 4:57:51 PM	27489
3-Nitroaniline	ND	2.9	10		µg/L	1	9/17/2016 4:57:51 PM	27489
4-Nitroaniline	ND	2.6	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Nitrobenzene	ND	2.8	10		µg/L	1	9/17/2016 4:57:51 PM	27489
2-Nitrophenol	ND	2.4	10		µg/L	1	9/17/2016 4:57:51 PM	27489
4-Nitrophenol	ND	2.6	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Pentachlorophenol	ND	2.3	20		µg/L	1	9/17/2016 4:57:51 PM	27489
Phenanthrene	ND	2.6	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Phenol	7.7	2.0	10	J	µg/L	1	9/17/2016 4:57:51 PM	27489
Pyrene	ND	3.1	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Pyridine	ND	2.2	10		µg/L	1	9/17/2016 4:57:51 PM	27489
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/17/2016 4:57:51 PM	27489
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/17/2016 4:57:51 PM	27489

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-22
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/10/2016 4:00:00 PM
Lab ID: 1609601-010 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/17/2016 4:57:51 PM	27489
Surr: 2-Fluorophenol	16.6	0	15-123		%Rec	1	9/17/2016 4:57:51 PM	27489
Surr: Phenol-d5	14.4	0	15-124	S	%Rec	1	9/17/2016 4:57:51 PM	27489
Surr: 2,4,6-Tribromophenol	32.3	0	18.4-134		%Rec	1	9/17/2016 4:57:51 PM	27489
Surr: Nitrobenzene-d5	38.1	0	28.8-134		%Rec	1	9/17/2016 4:57:51 PM	27489
Surr: 2-Fluorobiphenyl	28.7	0	35.9-125	S	%Rec	1	9/17/2016 4:57:51 PM	27489
Surr: 4-Terphenyl-d14	16.1	0	15-146		%Rec	1	9/17/2016 4:57:51 PM	27489
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	4200	19	200		µg/L	200	9/16/2016 1:50:17 AM	W37240
Toluene	30	2.4	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
Ethylbenzene	430	2.2	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
Methyl tert-butyl ether (MTBE)	8800	42	200		µg/L	200	9/16/2016 1:50:17 AM	W37240
1,2,4-Trimethylbenzene	15	2.2	20	J	µg/L	20	9/15/2016 5:42:01 PM	W37240
1,3,5-Trimethylbenzene	ND	2.3	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
1,2-Dichloroethane (EDC)	ND	2.3	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
1,2-Dibromoethane (EDB)	ND	2.2	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
Naphthalene	78	1.9	40		µg/L	20	9/15/2016 5:42:01 PM	W37240
1-Methylnaphthalene	88	4.1	80		µg/L	20	9/15/2016 5:42:01 PM	W37240
2-Methylnaphthalene	14	3.2	80	J	µg/L	20	9/15/2016 5:42:01 PM	W37240
Acetone	ND	98	200		µg/L	20	9/15/2016 5:42:01 PM	W37240
Bromobenzene	ND	2.0	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
Bromodichloromethane	ND	2.8	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
Bromoform	ND	2.0	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
Bromomethane	ND	16	60		µg/L	20	9/15/2016 5:42:01 PM	W37240
2-Butanone	ND	15	200		µg/L	20	9/15/2016 5:42:01 PM	W37240
Carbon disulfide	ND	12	200		µg/L	20	9/15/2016 5:42:01 PM	W37240
Carbon Tetrachloride	ND	2.2	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
Chlorobenzene	ND	2.3	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
Chloroethane	ND	3.8	40		µg/L	20	9/15/2016 5:42:01 PM	W37240
Chloroform	ND	1.8	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
Chloromethane	ND	4.3	60		µg/L	20	9/15/2016 5:42:01 PM	W37240
2-Chlorotoluene	ND	8.0	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
4-Chlorotoluene	ND	2.6	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
cis-1,2-DCE	11	2.5	20	J	µg/L	20	9/15/2016 5:42:01 PM	W37240
cis-1,3-Dichloropropene	ND	2.1	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
1,2-Dibromo-3-chloropropane	ND	4.7	40		µg/L	20	9/15/2016 5:42:01 PM	W37240
Dibromochloromethane	ND	1.7	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
Dibromomethane	ND	2.4	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
1,2-Dichlorobenzene	ND	8.0	20		µg/L	20	9/15/2016 5:42:01 PM	W37240

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-22
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/10/2016 4:00:00 PM
Lab ID: 1609601-010 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichlorobenzene	ND	2.9	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
1,4-Dichlorobenzene	ND	2.9	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
Dichlorodifluoromethane	ND	7.1	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
1,1-Dichloroethane	ND	2.2	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
1,1-Dichloroethene	9.4	2.1	20	J	µg/L	20	9/15/2016 5:42:01 PM	W37240
1,2-Dichloropropane	ND	2.2	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
1,3-Dichloropropane	ND	3.1	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
2,2-Dichloropropane	ND	3.3	40		µg/L	20	9/15/2016 5:42:01 PM	W37240
1,1-Dichloropropene	ND	2.7	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
Hexachlorobutadiene	ND	4.0	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
2-Hexanone	ND	17	200		µg/L	20	9/15/2016 5:42:01 PM	W37240
Isopropylbenzene	18	2.1	20	J	µg/L	20	9/15/2016 5:42:01 PM	W37240
4-Isopropyltoluene	ND	2.8	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
4-Methyl-2-pentanone	ND	8.6	200		µg/L	20	9/15/2016 5:42:01 PM	W37240
Methylene Chloride	ND	3.7	60		µg/L	20	9/15/2016 5:42:01 PM	W37240
n-Butylbenzene	8.5	3.2	60	J	µg/L	20	9/15/2016 5:42:01 PM	W37240
n-Propylbenzene	43	2.6	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
sec-Butylbenzene	4.2	2.5	20	J	µg/L	20	9/15/2016 5:42:01 PM	W37240
Styrene	ND	2.2	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
tert-Butylbenzene	ND	2.3	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
1,1,1,2-Tetrachloroethane	ND	2.2	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
1,1,2,2-Tetrachloroethane	ND	2.6	40		µg/L	20	9/15/2016 5:42:01 PM	W37240
Tetrachloroethene (PCE)	ND	3.0	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
trans-1,2-DCE	ND	8.0	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
trans-1,3-Dichloropropene	ND	2.1	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
1,2,3-Trichlorobenzene	ND	2.3	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
1,2,4-Trichlorobenzene	ND	2.7	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
1,1,1-Trichloroethane	ND	1.8	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
1,1,2-Trichloroethane	ND	2.5	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
Trichloroethene (TCE)	ND	3.5	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
Trichlorofluoromethane	ND	4.1	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
1,2,3-Trichloropropane	ND	4.0	40		µg/L	20	9/15/2016 5:42:01 PM	W37240
Vinyl chloride	ND	3.9	20		µg/L	20	9/15/2016 5:42:01 PM	W37240
Xylenes, Total	49	7.3	30		µg/L	20	9/15/2016 5:42:01 PM	W37240
Surr: 1,2-Dichloroethane-d4	93.4	0	70-130		%Rec	20	9/15/2016 5:42:01 PM	W37240
Surr: 4-Bromofluorobenzene	99.1	0	70-130		%Rec	20	9/15/2016 5:42:01 PM	W37240
Surr: Dibromofluoromethane	102	0	70-130		%Rec	20	9/15/2016 5:42:01 PM	W37240
Surr: Toluene-d8	95.5	0	70-130		%Rec	20	9/15/2016 5:42:01 PM	W37240
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-22
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/10/2016 4:00:00 PM
Lab ID: 1609601-010 **Matrix:** AQUEOUS **Received Date:** 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	17	0.30	1.0		mg/L	20	9/15/2016 5:42:01 PM	G37240
Surr: BFB	98.4	0	70-130		%Rec	20	9/15/2016 5:42:01 PM	G37240

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/10/2016
Lab ID: 1609601-011
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Toluene	ND	0.12	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Naphthalene	ND	0.093	2.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Acetone	8.8	4.9	10	J	µg/L	1	9/15/2016 11:57:08 AM	W37240
Bromobenzene	ND	0.098	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Bromoform	ND	0.10	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Bromomethane	ND	0.78	3.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
2-Butanone	ND	0.74	10		µg/L	1	9/15/2016 11:57:08 AM	W37240
Carbon disulfide	ND	0.60	10		µg/L	1	9/15/2016 11:57:08 AM	W37240
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Chloroethane	ND	0.19	2.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Chloroform	ND	0.089	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Chloromethane	ND	0.21	3.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Dibromomethane	ND	0.12	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/15/2016 11:57:08 AM	W37240

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/10/2016
Lab ID: 1609601-011
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
2-Hexanone	ND	0.84	10		µg/L	1	9/15/2016 11:57:08 AM	W37240
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/15/2016 11:57:08 AM	W37240
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Styrene	ND	0.11	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/15/2016 11:57:08 AM	W37240
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/15/2016 11:57:08 AM	W37240
Surr: 1,2-Dichloroethane-d4	97.2	0	70-130		%Rec	1	9/15/2016 11:57:08 AM	W37240
Surr: 4-Bromofluorobenzene	92.2	0	70-130		%Rec	1	9/15/2016 11:57:08 AM	W37240
Surr: Dibromofluoromethane	107	0	70-130		%Rec	1	9/15/2016 11:57:08 AM	W37240
Surr: Toluene-d8	94.8	0	70-130		%Rec	1	9/15/2016 11:57:08 AM	W37240
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/15/2016 11:57:08 AM	G37240
Surr: BFB	95.6	0	70-130		%Rec	1	9/15/2016 11:57:08 AM	G37240

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB091116
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 4:55:00 PM
Lab ID: 1609601-012
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	9/14/2016 6:47:45 PM	27491
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/14/2016 6:47:45 PM	27491
Surr: DNOP	143	0	77.1-144		%Rec	1	9/14/2016 6:47:45 PM	27491
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	ND	0.050	0.10		mg/L	1	9/18/2016 4:11:37 PM	R37299
Chloride	0.13	0.051	0.50	J	mg/L	1	9/18/2016 4:11:37 PM	R37299
Bromide	ND	0.044	0.10		mg/L	1	9/18/2016 4:11:37 PM	R37299
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	h	mg/L	1	9/18/2016 4:11:37 PM	R37299
Sulfate	ND	0.14	0.50		mg/L	1	9/18/2016 4:11:37 PM	R37299
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/18/2016 8:32:14 PM	R37299
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	ND	0.0013	0.0020		mg/L	1	9/29/2016 4:36:41 PM	F37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 4:36:41 PM	F37552
Calcium	ND	0.50	1.0		mg/L	1	9/29/2016 4:36:41 PM	F37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 4:36:41 PM	F37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 4:36:41 PM	F37552
Iron	ND	0.020	0.020		mg/L	1	9/29/2016 4:36:41 PM	F37552
Magnesium	ND	0.50	1.0		mg/L	1	9/29/2016 4:36:41 PM	F37552
Manganese	ND	0.00032	0.0020		mg/L	1	9/29/2016 4:36:41 PM	F37552
Potassium	ND	0.50	1.0		mg/L	1	9/29/2016 4:36:41 PM	F37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 4:36:41 PM	F37552
Sodium	ND	0.50	1.0		mg/L	1	9/29/2016 4:36:41 PM	F37552
Zinc	ND	0.0028	0.010		mg/L	1	9/29/2016 4:36:41 PM	F37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	ND	0.00079	0.0020		mg/L	1	10/3/2016 8:29:07 PM	27665
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 8:29:07 PM	27665
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 8:29:07 PM	27665
Copper	ND	0.0030	0.0060		mg/L	1	10/3/2016 8:29:07 PM	27665
Iron	ND	0.020	0.020		mg/L	1	10/3/2016 8:29:07 PM	27665
Manganese	0.00045	0.00027	0.0020	J	mg/L	1	10/3/2016 8:29:07 PM	27665
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 8:29:07 PM	27665
Zinc	ND	0.0027	0.010		mg/L	1	10/3/2016 8:29:07 PM	27665
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	ND	0.00014	0.0010		mg/L	1	9/23/2016 1:04:44 PM	B37462
Lead	ND	0.00017	0.00050		mg/L	1	9/23/2016 1:04:44 PM	B37462
Selenium	ND	0.00021	0.0010		mg/L	1	9/23/2016 1:04:44 PM	B37462
Uranium	ND	0.000051	0.00050		mg/L	1	9/23/2016 1:04:44 PM	B37462

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB091116
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 4:55:00 PM
Lab ID: 1609601-012
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.00021	0.0010		mg/L	1	9/26/2016 4:43:49 PM	27665
Lead	ND	0.000081	0.00050		mg/L	1	9/26/2016 4:43:49 PM	27665
Selenium	ND	0.00019	0.0010		mg/L	1	9/26/2016 4:43:49 PM	27665
Uranium	ND	0.00017	0.00050		mg/L	1	9/26/2016 6:04:31 PM	27665
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:50:12 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Acenaphthylene	ND	2.4	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Aniline	ND	2.4	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Anthracene	ND	2.5	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Azobenzene	ND	2.7	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Benzoic acid	11	2.6	20	J	µg/L	1	9/19/2016 1:59:30 PM	27514
Benzyl alcohol	ND	3.0	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Bis(2-ethylhexyl)phthalate	3.6	2.6	10	J	µg/L	1	9/19/2016 1:59:30 PM	27514
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Carbazole	ND	2.3	10		µg/L	1	9/19/2016 1:59:30 PM	27514
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/19/2016 1:59:30 PM	27514
4-Chloroaniline	ND	2.7	10		µg/L	1	9/19/2016 1:59:30 PM	27514
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/19/2016 1:59:30 PM	27514
2-Chlorophenol	ND	2.2	10		µg/L	1	9/19/2016 1:59:30 PM	27514
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Chrysene	ND	2.8	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Di-n-octyl phthalate	3.9	2.0	10	J	µg/L	1	9/19/2016 1:59:30 PM	27514
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Dibenzofuran	ND	2.5	10		µg/L	1	9/19/2016 1:59:30 PM	27514
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/19/2016 1:59:30 PM	27514
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/19/2016 1:59:30 PM	27514

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB091116
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 4:55:00 PM
Lab ID: 1609601-012
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/19/2016 1:59:30 PM	27514
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Diethyl phthalate	ND	2.7	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Dimethyl phthalate	14	2.4	10		µg/L	1	9/19/2016 1:59:30 PM	27514
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/19/2016 1:59:30 PM	27514
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	9/19/2016 1:59:30 PM	27514
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/19/2016 1:59:30 PM	27514
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/19/2016 1:59:30 PM	27514
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/19/2016 1:59:30 PM	27514
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Fluoranthene	ND	2.6	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Fluorene	ND	2.7	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Hexachloroethane	ND	2.4	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Isophorone	ND	2.6	10		µg/L	1	9/19/2016 1:59:30 PM	27514
1-Methylnaphthalene	ND	2.9	10		µg/L	1	9/19/2016 1:59:30 PM	27514
2-Methylnaphthalene	ND	2.9	10		µg/L	1	9/19/2016 1:59:30 PM	27514
2-Methylphenol	ND	2.5	10		µg/L	1	9/19/2016 1:59:30 PM	27514
3+4-Methylphenol	ND	2.3	10		µg/L	1	9/19/2016 1:59:30 PM	27514
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/19/2016 1:59:30 PM	27514
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/19/2016 1:59:30 PM	27514
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Naphthalene	ND	2.6	10		µg/L	1	9/19/2016 1:59:30 PM	27514
2-Nitroaniline	ND	2.8	10		µg/L	1	9/19/2016 1:59:30 PM	27514
3-Nitroaniline	ND	2.9	10		µg/L	1	9/19/2016 1:59:30 PM	27514
4-Nitroaniline	ND	2.6	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Nitrobenzene	ND	2.8	10		µg/L	1	9/19/2016 1:59:30 PM	27514
2-Nitrophenol	ND	2.4	10		µg/L	1	9/19/2016 1:59:30 PM	27514
4-Nitrophenol	ND	2.6	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Pentachlorophenol	2.5	2.3	20	J	µg/L	1	9/19/2016 1:59:30 PM	27514
Phenanthrene	ND	2.6	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Phenol	ND	2.0	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Pyrene	3.2	3.1	10	J	µg/L	1	9/19/2016 1:59:30 PM	27514
Pyridine	ND	2.2	10		µg/L	1	9/19/2016 1:59:30 PM	27514
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/19/2016 1:59:30 PM	27514
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/19/2016 1:59:30 PM	27514

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CLIENT: Western Refining Southwest, Gallup
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Lab ID: 1609601-012
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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/19/2016 1:59:30 PM	27514
Surr: 2-Fluorophenol	51.7	0	15-123		%Rec	1	9/19/2016 1:59:30 PM	27514
Surr: Phenol-d5	41.6	0	15-124		%Rec	1	9/19/2016 1:59:30 PM	27514
Surr: 2,4,6-Tribromophenol	84.1	0	18.4-134		%Rec	1	9/19/2016 1:59:30 PM	27514
Surr: Nitrobenzene-d5	72.7	0	28.8-134		%Rec	1	9/19/2016 1:59:30 PM	27514
Surr: 2-Fluorobiphenyl	64.6	0	35.9-125		%Rec	1	9/19/2016 1:59:30 PM	27514
Surr: 4-Terphenyl-d14	48.2	0	15-146		%Rec	1	9/19/2016 1:59:30 PM	27514
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Toluene	ND	0.12	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Ethylbenzene	ND	0.11	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Naphthalene	ND	0.093	2.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Acetone	ND	4.9	10		µg/L	1	9/15/2016 12:25:48 PM	W37240
Bromobenzene	ND	0.098	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Bromodichloromethane	ND	0.14	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Bromoform	ND	0.10	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Bromomethane	ND	0.78	3.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
2-Butanone	ND	0.74	10		µg/L	1	9/15/2016 12:25:48 PM	W37240
Carbon disulfide	ND	0.60	10		µg/L	1	9/15/2016 12:25:48 PM	W37240
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Chlorobenzene	ND	0.11	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Chloroethane	ND	0.19	2.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Chloroform	ND	0.089	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Chloromethane	ND	0.21	3.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Dibromochloromethane	ND	0.087	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Dibromomethane	ND	0.12	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB091116
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 4:55:00 PM
Lab ID: 1609601-012
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
2-Hexanone	ND	0.84	10		µg/L	1	9/15/2016 12:25:48 PM	W37240
Isopropylbenzene	ND	0.10	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	9/15/2016 12:25:48 PM	W37240
Methylene Chloride	ND	0.19	3.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
n-Butylbenzene	ND	0.16	3.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
n-Propylbenzene	ND	0.13	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Styrene	ND	0.11	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Vinyl chloride	ND	0.20	1.0		µg/L	1	9/15/2016 12:25:48 PM	W37240
Xylenes, Total	ND	0.37	1.5		µg/L	1	9/15/2016 12:25:48 PM	W37240
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	9/15/2016 12:25:48 PM	W37240
Surr: 4-Bromofluorobenzene	92.4	0	70-130		%Rec	1	9/15/2016 12:25:48 PM	W37240
Surr: Dibromofluoromethane	109	0	70-130		%Rec	1	9/15/2016 12:25:48 PM	W37240
Surr: Toluene-d8	96.0	0	70-130		%Rec	1	9/15/2016 12:25:48 PM	W37240
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB091116
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016 4:55:00 PM
Lab ID: 1609601-012
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	0.015	0.050		mg/L	1	9/15/2016 12:25:48 PM	G37240
Surr: BFB	93.7	0	70-130		%Rec	1	9/15/2016 12:25:48 PM	G37240

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP04
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016
Lab ID: 1609601-013
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	1.7	0.69	1.0	H	mg/L	1	9/20/2016 10:00:36 PM	27563
Motor Oil Range Organics (MRO)	ND	5.0	5.0	H	mg/L	1	9/20/2016 10:00:36 PM	27563
Surr: DNOP	138	0	77.1-144	H	%Rec	1	9/20/2016 10:00:36 PM	27563
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	ND	1.0	2.0		mg/L	20	9/18/2016 5:13:41 PM	R37299
Chloride	910	5.1	50		mg/L	100	9/23/2016 6:06:02 PM	R37469
Bromide	ND	0.044	0.10		mg/L	1	9/18/2016 5:01:16 PM	R37299
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	9/18/2016 5:01:16 PM	R37299
Sulfate	1.9	0.14	0.50		mg/L	1	9/18/2016 5:01:16 PM	R37299
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	9/18/2016 8:44:38 PM	R37299
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	2.4	0.013	0.020	*	mg/L	10	9/29/2016 4:48:15 PM	F37552
Cadmium	ND	0.00075	0.0020		mg/L	1	9/29/2016 4:46:32 PM	F37552
Calcium	160	5.0	10		mg/L	10	9/29/2016 4:48:15 PM	F37552
Chromium	ND	0.0018	0.0060		mg/L	1	9/29/2016 4:46:32 PM	F37552
Copper	ND	0.0040	0.0060		mg/L	1	9/29/2016 4:46:32 PM	F37552
Iron	4.7	0.20	0.20	*	mg/L	10	9/29/2016 4:48:15 PM	F37552
Magnesium	45	0.50	1.0		mg/L	1	9/29/2016 4:46:32 PM	F37552
Manganese	3.7	0.0032	0.020	*	mg/L	10	9/29/2016 4:48:15 PM	F37552
Potassium	0.99	0.50	1.0	J	mg/L	1	9/29/2016 4:46:32 PM	F37552
Silver	ND	0.0028	0.0050		mg/L	1	9/29/2016 4:46:32 PM	F37552
Sodium	710	5.0	10		mg/L	10	9/29/2016 4:48:15 PM	F37552
Zinc	0.0030	0.0028	0.010	J	mg/L	1	9/29/2016 4:46:32 PM	F37552
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	2.9	0.0040	0.010	*	mg/L	5	10/3/2016 8:42:48 PM	27665
Cadmium	ND	0.0015	0.0020		mg/L	1	10/3/2016 8:41:03 PM	27665
Chromium	ND	0.0027	0.0060		mg/L	1	10/3/2016 8:41:03 PM	27665
Copper	ND	0.0030	0.0060		mg/L	1	10/3/2016 8:41:03 PM	27665
Iron	7.3	0.20	0.20	*	mg/L	10	10/4/2016 4:41:43 PM	27665
Manganese	4.1	0.0014	0.010	*	mg/L	5	10/3/2016 8:42:48 PM	27665
Silver	ND	0.0015	0.0050		mg/L	1	10/3/2016 8:41:03 PM	27665
Zinc	0.011	0.0027	0.010		mg/L	1	10/3/2016 8:41:03 PM	27665
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.014	0.00014	0.0010	*	mg/L	1	9/23/2016 1:07:47 PM	B37462
Lead	0.00018	0.00017	0.00050	J	mg/L	1	9/23/2016 1:07:47 PM	B37462
Selenium	0.0057	0.0021	0.010	J	mg/L	10	9/23/2016 3:20:53 PM	C37462
Uranium	0.0043	0.000051	0.00050		mg/L	1	9/23/2016 1:07:47 PM	B37462

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP04
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016
Lab ID: 1609601-013
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.013	0.00021	0.0010	*	mg/L	1	9/26/2016 4:52:54 PM	27665
Lead	0.0011	0.000081	0.00050		mg/L	1	9/26/2016 4:52:54 PM	27665
Selenium	0.0050	0.0019	0.010	J	mg/L	10	9/26/2016 6:49:43 PM	27665
Uranium	0.0064	0.00017	0.00050		mg/L	1	9/26/2016 6:07:32 PM	27665
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	9/23/2016 11:52:15 AM	27664
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Acenaphthylene	ND	2.4	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Aniline	8.6	2.4	10	J	µg/L	1	9/19/2016 2:27:16 PM	27514
Anthracene	ND	2.5	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Azobenzene	ND	2.7	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Benz(a)anthracene	ND	2.6	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Benzo(a)pyrene	ND	2.7	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Benzoic acid	ND	2.6	20		µg/L	1	9/19/2016 2:27:16 PM	27514
Benzyl alcohol	ND	3.0	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Bis(2-ethylhexyl)phthalate	3.4	2.6	10	J	µg/L	1	9/19/2016 2:27:16 PM	27514
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Carbazole	ND	2.3	10		µg/L	1	9/19/2016 2:27:16 PM	27514
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	9/19/2016 2:27:16 PM	27514
4-Chloroaniline	ND	2.7	10		µg/L	1	9/19/2016 2:27:16 PM	27514
2-Chloronaphthalene	ND	2.3	10		µg/L	1	9/19/2016 2:27:16 PM	27514
2-Chlorophenol	ND	2.2	10		µg/L	1	9/19/2016 2:27:16 PM	27514
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Chrysene	ND	2.8	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Di-n-octyl phthalate	3.8	2.0	10	J	µg/L	1	9/19/2016 2:27:16 PM	27514
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Dibenzofuran	ND	2.5	10		µg/L	1	9/19/2016 2:27:16 PM	27514
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	9/19/2016 2:27:16 PM	27514
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	9/19/2016 2:27:16 PM	27514

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP04
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016
Lab ID: 1609601-013
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	9/19/2016 2:27:16 PM	27514
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Diethyl phthalate	ND	2.7	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Dimethyl phthalate	13	2.4	10		µg/L	1	9/19/2016 2:27:16 PM	27514
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	9/19/2016 2:27:16 PM	27514
2,4-Dimethylphenol	44	3.0	10		µg/L	1	9/19/2016 2:27:16 PM	27514
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	9/19/2016 2:27:16 PM	27514
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	9/19/2016 2:27:16 PM	27514
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	9/19/2016 2:27:16 PM	27514
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Fluoranthene	ND	2.6	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Fluorene	ND	2.7	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Hexachlorobenzene	ND	2.6	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Hexachlorobutadiene	ND	2.2	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Hexachloroethane	ND	2.4	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Isophorone	ND	2.6	10		µg/L	1	9/19/2016 2:27:16 PM	27514
1-Methylnaphthalene	16	2.9	10		µg/L	1	9/19/2016 2:27:16 PM	27514
2-Methylnaphthalene	9.5	2.9	10	J	µg/L	1	9/19/2016 2:27:16 PM	27514
2-Methylphenol	130	2.5	10		µg/L	1	9/19/2016 2:27:16 PM	27514
3+4-Methylphenol	120	2.3	10		µg/L	1	9/19/2016 2:27:16 PM	27514
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	9/19/2016 2:27:16 PM	27514
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	9/19/2016 2:27:16 PM	27514
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Naphthalene	28	2.6	10		µg/L	1	9/19/2016 2:27:16 PM	27514
2-Nitroaniline	ND	2.8	10		µg/L	1	9/19/2016 2:27:16 PM	27514
3-Nitroaniline	ND	2.9	10		µg/L	1	9/19/2016 2:27:16 PM	27514
4-Nitroaniline	ND	2.6	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Nitrobenzene	ND	2.8	10		µg/L	1	9/19/2016 2:27:16 PM	27514
2-Nitrophenol	ND	2.4	10		µg/L	1	9/19/2016 2:27:16 PM	27514
4-Nitrophenol	ND	2.6	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Pentachlorophenol	2.4	2.3	20	J	µg/L	1	9/19/2016 2:27:16 PM	27514
Phenanthrene	ND	2.6	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Phenol	51	2.0	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Pyrene	3.3	3.1	10	J	µg/L	1	9/19/2016 2:27:16 PM	27514
Pyridine	ND	2.2	10		µg/L	1	9/19/2016 2:27:16 PM	27514
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	9/19/2016 2:27:16 PM	27514
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	9/19/2016 2:27:16 PM	27514

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP04
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016
Lab ID: 1609601-013
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	9/19/2016 2:27:16 PM	27514
Surr: 2-Fluorophenol	30.5	0	15-123		%Rec	1	9/19/2016 2:27:16 PM	27514
Surr: Phenol-d5	46.6	0	15-124		%Rec	1	9/19/2016 2:27:16 PM	27514
Surr: 2,4,6-Tribromophenol	79.2	0	18.4-134		%Rec	1	9/19/2016 2:27:16 PM	27514
Surr: Nitrobenzene-d5	73.1	0	28.8-134		%Rec	1	9/19/2016 2:27:16 PM	27514
Surr: 2-Fluorobiphenyl	80.2	0	35.9-125		%Rec	1	9/19/2016 2:27:16 PM	27514
Surr: 4-Terphenyl-d14	50.8	0	15-146		%Rec	1	9/19/2016 2:27:16 PM	27514
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	4200	4.8	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
Toluene	4600	5.9	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
Ethylbenzene	500	5.6	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
Methyl tert-butyl ether (MTBE)	73	11	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
1,2,4-Trimethylbenzene	230	5.5	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
1,3,5-Trimethylbenzene	41	5.8	50	J	µg/L	50	9/15/2016 1:51:59 PM	W37240
1,2-Dichloroethane (EDC)	ND	5.8	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
1,2-Dibromoethane (EDB)	ND	5.6	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
Naphthalene	45	4.6	100	J	µg/L	50	9/15/2016 1:51:59 PM	W37240
1-Methylnaphthalene	20	10	200	J	µg/L	50	9/15/2016 1:51:59 PM	W37240
2-Methylnaphthalene	13	7.9	200	J	µg/L	50	9/15/2016 1:51:59 PM	W37240
Acetone	ND	250	500		µg/L	50	9/15/2016 1:51:59 PM	W37240
Bromobenzene	ND	4.9	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
Bromodichloromethane	ND	7.0	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
Bromoform	ND	5.1	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
Bromomethane	ND	39	150		µg/L	50	9/15/2016 1:51:59 PM	W37240
2-Butanone	160	37	500	J	µg/L	50	9/15/2016 1:51:59 PM	W37240
Carbon disulfide	ND	30	500		µg/L	50	9/15/2016 1:51:59 PM	W37240
Carbon Tetrachloride	ND	5.4	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
Chlorobenzene	ND	5.7	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
Chloroethane	ND	9.6	100		µg/L	50	9/15/2016 1:51:59 PM	W37240
Chloroform	ND	4.4	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
Chloromethane	ND	11	150		µg/L	50	9/15/2016 1:51:59 PM	W37240
2-Chlorotoluene	ND	20	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
4-Chlorotoluene	ND	6.4	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
cis-1,2-DCE	ND	6.2	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
cis-1,3-Dichloropropene	ND	5.3	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
1,2-Dibromo-3-chloropropane	ND	12	100		µg/L	50	9/15/2016 1:51:59 PM	W37240
Dibromochloromethane	ND	4.3	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
Dibromomethane	ND	6.0	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
1,2-Dichlorobenzene	ND	20	50		µg/L	50	9/15/2016 1:51:59 PM	W37240

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP04
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016
Lab ID: 1609601-013
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichlorobenzene	ND	7.2	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
1,4-Dichlorobenzene	ND	7.1	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
Dichlorodifluoromethane	ND	18	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
1,1-Dichloroethane	49	5.4	50	J	µg/L	50	9/15/2016 1:51:59 PM	W37240
1,1-Dichloroethene	ND	5.4	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
1,2-Dichloropropane	ND	5.5	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
1,3-Dichloropropane	ND	7.8	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
2,2-Dichloropropane	ND	8.3	100		µg/L	50	9/15/2016 1:51:59 PM	W37240
1,1-Dichloropropene	ND	6.7	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
Hexachlorobutadiene	ND	9.9	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
2-Hexanone	ND	42	500		µg/L	50	9/15/2016 1:51:59 PM	W37240
Isopropylbenzene	17	5.2	50	J	µg/L	50	9/15/2016 1:51:59 PM	W37240
4-Isopropyltoluene	ND	7.0	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
4-Methyl-2-pentanone	34	21	500	J	µg/L	50	9/15/2016 1:51:59 PM	W37240
Methylene Chloride	ND	9.4	150		µg/L	50	9/15/2016 1:51:59 PM	W37240
n-Butylbenzene	ND	8.0	150		µg/L	50	9/15/2016 1:51:59 PM	W37240
n-Propylbenzene	52	6.6	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
sec-Butylbenzene	ND	6.2	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
Styrene	ND	5.5	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
tert-Butylbenzene	ND	5.8	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
1,1,1,2-Tetrachloroethane	ND	5.6	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
1,1,2,2-Tetrachloroethane	ND	6.4	100		µg/L	50	9/15/2016 1:51:59 PM	W37240
Tetrachloroethene (PCE)	ND	7.6	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
trans-1,2-DCE	ND	20	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
trans-1,3-Dichloropropene	ND	5.2	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
1,2,3-Trichlorobenzene	ND	5.6	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
1,2,4-Trichlorobenzene	ND	6.6	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
1,1,1-Trichloroethane	ND	4.6	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
1,1,2-Trichloroethane	ND	6.4	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
Trichloroethene (TCE)	ND	8.8	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
Trichlorofluoromethane	ND	10	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
1,2,3-Trichloropropane	ND	10	100		µg/L	50	9/15/2016 1:51:59 PM	W37240
Vinyl chloride	56	9.8	50		µg/L	50	9/15/2016 1:51:59 PM	W37240
Xylenes, Total	1500	18	75		µg/L	50	9/15/2016 1:51:59 PM	W37240
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	50	9/15/2016 1:51:59 PM	W37240
Surr: 4-Bromofluorobenzene	93.8	0	70-130		%Rec	50	9/15/2016 1:51:59 PM	W37240
Surr: Dibromofluoromethane	107	0	70-130		%Rec	50	9/15/2016 1:51:59 PM	W37240
Surr: Toluene-d8	94.4	0	70-130		%Rec	50	9/15/2016 1:51:59 PM	W37240
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP04
Project: 2016 3RD QTR (MKTF)
Collection Date: 9/11/2016
Lab ID: 1609601-013
Matrix: AQUEOUS
Received Date: 9/12/2016 3:20:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **DJF**	
Gasoline Range Organics (GRO)	28	0.75	2.5		mg/L	50	9/15/2016 1:51:59 PM	G37240
Surr: BFB	95.0	0	70-130		%Rec	50	9/15/2016 1:51:59 PM	G37240

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**
25-Oct-16

Client: Western Refining Southwest, Gallup
Project: 2016 3RD QTR (MKTF)

Sample ID **MB-F**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **F37552**	RunNo: **37552**
Prep Date:	Analysis Date: **9/29/2016**	SeqNo: **1169129** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-F**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **F37552**	RunNo: **37552**
Prep Date:	Analysis Date: **9/29/2016**	SeqNo: **1169130** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.49	0.0060	0.5000	0	99.0	85	115			
Copper	0.50	0.0060	0.5000	0	99.9	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Manganese	0.50	0.0020	0.5000	0	100	85	115			
Potassium	49	1.0	50.00	0	97.1	85	115			
Silver	0.10	0.0050	0.1000	0	103	85	115			
Sodium	49	1.0	50.00	0	98.6	85	115			
Zinc	0.49	0.010	0.5000	0	98.8	85	115			

Sample ID **LLLCS-F**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **F37552**	RunNo: **37552**
Prep Date:	Analysis Date: **9/29/2016**	SeqNo: **1169131** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.0017	0.0020	0.002000	0	83.5	50	150			J
Calcium	0.51	1.0	0.5000	0	102	50	150			J
Chromium	0.0054	0.0060	0.006000	0	90.8	50	150			J
Copper	0.0061	0.0060	0.006000	0	101	50	150			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**LLLCS-F**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**F37552**	RunNo:	**37552**					
Prep Date:		Analysis Date:	**9/29/2016**	SeqNo:	**1169131**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.023	0.020	0.02000	0	114	50	150			
Magnesium	0.52	1.0	0.5000	0	105	50	150			J
Manganese	0.0020	0.0020	0.002000	0	102	50	150			
Silver	0.0051	0.0050	0.005000	0	103	50	150			
Sodium	0.50	1.0	0.5000	0	100	50	150			J
Zinc	0.0055	0.010	0.005000	0	110	50	150			J

Sample ID	**LLLCS-F**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**F37552**	RunNo:	**37552**					
Prep Date:		Analysis Date:	**9/29/2016**	SeqNo:	**1169133**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0018	0.0020	0.002000	0	91.5	50	150			J
Potassium	0.52	1.0	0.5000	0	103	50	150			J

Sample ID	**MB-B**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**B37643**	RunNo:	**37643**					
Prep Date:		Analysis Date:	**10/3/2016**	SeqNo:	**1171590**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								

Sample ID	**LCS-B**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID:	**B37643**	RunNo:	**37643**					
Prep Date:		Analysis Date:	**10/3/2016**	SeqNo:	**1171591**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.51	0.020	0.5000	0	101	85	115			

Sample ID	**LLLCS-B**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**B37643**	RunNo:	**37643**					
Prep Date:		Analysis Date:	**10/3/2016**	SeqNo:	**1171592**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.022	0.020	0.02000	0	110	50	150			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**MB-27665**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**27665**	RunNo:	**37552**					
Prep Date:	**9/22/2016**	Analysis Date:	**9/29/2016**	SeqNo:	**1169287**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	0.00046	0.0020								J
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	**LCS-27665**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID:	**27665**	RunNo:	**37552**					
Prep Date:	**9/22/2016**	Analysis Date:	**9/29/2016**	SeqNo:	**1169288**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.49	0.0060	0.5000	0	98.6	85	115			
Copper	0.49	0.0060	0.5000	0	98.9	85	115			
Iron	0.50	0.020	0.5000	0	99.2	85	115			
Manganese	0.50	0.0020	0.5000	0	99.3	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Zinc	0.49	0.010	0.5000	0	98.0	85	115			

Sample ID	**LLLCS-27665**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID:	**27665**	RunNo:	**37552**					
Prep Date:	**9/22/2016**	Analysis Date:	**9/29/2016**	SeqNo:	**1169289**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.0053	0.0060	0.006000	0	87.7	50	150			J
Copper	0.0059	0.0060	0.006000	0	98.3	50	150			J
Iron	0.023	0.020	0.02000	0	114	50	150			
Manganese	0.0024	0.0020	0.002000	0	122	50	150			
Silver	0.0053	0.0050	0.005000	0	107	50	150			
Zinc	0.0059	0.010	0.005000	0	118	50	150			J

Sample ID	**MB-27665**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**27665**	RunNo:	**37609**					
Prep Date:	**9/22/2016**	Analysis Date:	**9/30/2016**	SeqNo:	**1170444**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**LCS-27665**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**LCSW**	Batch ID:	**27665**		RunNo:	**37609**				
Prep Date:	**9/22/2016**	Analysis Date:	**9/30/2016**		SeqNo:	**1170445**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.6	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.4	85	115			

Sample ID	**LLLCS-27665**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**BatchQC**	Batch ID:	**27665**		RunNo:	**37609**				
Prep Date:	**9/22/2016**	Analysis Date:	**9/30/2016**		SeqNo:	**1170446**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0013	0.0020	0.002000	0	63.5	50	150			J
Cadmium	0.0022	0.0020	0.002000	0	108	50	150			

Sample ID	**MB-27933**	SampType:	**MBLK**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**PBW**	Batch ID:	**27933**		RunNo:	**37917**				
Prep Date:	**10/6/2016**	Analysis Date:	**10/12/2016**		SeqNo:	**1181446**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0040	0.0060								J

Sample ID	**LLLCS-27933**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**BatchQC**	Batch ID:	**27933**		RunNo:	**37917**				
Prep Date:	**10/6/2016**	Analysis Date:	**10/12/2016**		SeqNo:	**1181447**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0076	0.0060	0.006000	0	127	50	150			

Sample ID	**LCS-27933**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**LCSW**	Batch ID:	**27933**		RunNo:	**37917**				
Prep Date:	**10/6/2016**	Analysis Date:	**10/12/2016**		SeqNo:	**1181448**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.56	0.0060	0.5000	0	113	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A37462**	RunNo: **37462**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164727** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	92.9	85	115			
Lead	0.012	0.00050	0.01250	0	96.1	85	115			
Selenium	0.023	0.0010	0.02500	0	91.2	85	115			
Uranium	0.012	0.00050	0.01250	0	93.0	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B37462**	RunNo: **37462**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164728** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.5	85	115			
Lead	0.012	0.00050	0.01250	0	97.7	85	115			
Selenium	0.024	0.0010	0.02500	0	95.2	85	115			
Uranium	0.012	0.00050	0.01250	0	94.9	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C37462**	RunNo: **37462**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164729** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.1	85	115			
Selenium	0.024	0.0010	0.02500	0	94.2	85	115			
Uranium	0.012	0.00050	0.01250	0	96.0	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A37462**	RunNo: **37462**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164730** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00089	0.0010	0.001000	0	89.2	50	150			J
Lead	0.00050	0.00050	0.0005000	0	99.9	50	150			J
Selenium	0.00087	0.0010	0.001000	0	87.1	50	150			J
Uranium	0.00046	0.00050	0.0005000	0	92.8	50	150			J

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B37462**	RunNo: **37462**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164731** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	101	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**LLLCS**	SampType:	**LCSLL**	TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**B37462**	RunNo:	**37462**					
Prep Date:		Analysis Date:	**9/23/2016**	SeqNo:	**1164731**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00051	0.00050	0.0005000	0	101	50	150			
Selenium	0.0011	0.0010	0.001000	0	112	50	150			
Uranium	0.00048	0.00050	0.0005000	0	95.2	50	150			J

Sample ID	**LLLCS**	SampType:	**LCSLL**	TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**C37462**	RunNo:	**37462**					
Prep Date:		Analysis Date:	**9/23/2016**	SeqNo:	**1164732**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00098	0.0010	0.001000	0	97.6	50	150			J
Selenium	0.0010	0.0010	0.001000	0	103	50	150			
Uranium	0.00049	0.00050	0.0005000	0	97.6	50	150			J

Sample ID	**MB**	SampType:	**MBLK**	TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**A37462**	RunNo:	**37462**					
Prep Date:		Analysis Date:	**9/23/2016**	SeqNo:	**1164733**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MB**	SampType:	**MBLK**	TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**B37462**	RunNo:	**37462**					
Prep Date:		Analysis Date:	**9/23/2016**	SeqNo:	**1164734**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MB**	SampType:	**MBLK**	TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**C37462**	RunNo:	**37462**					
Prep Date:		Analysis Date:	**9/23/2016**	SeqNo:	**1164735**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**
25-Oct-16

Client: Western Refining Southwest, Gallup
Project: 2016 3RD QTR (MKTF)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C37462**	RunNo: **37462**
Prep Date:	Analysis Date: **9/23/2016**	SeqNo: **1164735** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**MB-27665**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**27665**	RunNo:	**37474**					
Prep Date:	**9/22/2016**	Analysis Date:	**9/26/2016**	SeqNo:	**1165265**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-27665**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**27665**	RunNo:	**37474**					
Prep Date:	**9/22/2016**	Analysis Date:	**9/26/2016**	SeqNo:	**1165267**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Lead	0.013	0.00050	0.01250	0	102	85	115			
Selenium	0.024	0.0010	0.02500	0	97.8	85	115			
Uranium	0.012	0.00050	0.01250	0	99.9	85	115			

Sample ID	**MSLLLCS-27665**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**27665**	RunNo:	**37474**					
Prep Date:	**9/22/2016**	Analysis Date:	**9/26/2016**	SeqNo:	**1165269**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	109	50	150			
Lead	0.00052	0.00050	0.0005000	0	105	50	150			
Selenium	0.00097	0.0010	0.001000	0	97.1	50	150			J
Uranium	0.00051	0.00050	0.0005000	0	103	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**MB-27664**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**27664**	RunNo:	**37436**					
Prep Date:	**9/22/2016**	Analysis Date:	**9/23/2016**	SeqNo:	**1163804**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-27664**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**27664**	RunNo:	**37436**					
Prep Date:	**9/22/2016**	Analysis Date:	**9/23/2016**	SeqNo:	**1163806**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	106	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R37171**	RunNo: **37171**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1153024** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	0.27	0.50								J
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R37171**	RunNo: **37171**
Prep Date:	Analysis Date: **9/13/2016**	SeqNo: **1153025** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Chloride	4.7	0.50	5.000	0	94.6	90	110			
Bromide	2.4	0.10	2.500	0	96.0	90	110			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	94.2	90	110			
Sulfate	9.8	0.50	10.00	0	97.9	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R37299**	RunNo: **37299**
Prep Date:	Analysis Date: **9/18/2016**	SeqNo: **1158227** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R37299**	RunNo: **37299**
Prep Date:	Analysis Date: **9/18/2016**	SeqNo: **1158228** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.54	0.10	0.5000	0	108	90	110			
Chloride	4.8	0.50	5.000	0	95.7	90	110			
Bromide	2.4	0.10	2.500	0	96.2	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.4	90	110			
Sulfate	9.7	0.50	10.00	0	97.0	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	98.4	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**1609601-004DMS**	SampType:	**ms**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**MKTF-11**	Batch ID:	**R37299**		RunNo:	**37299**				
Prep Date:		Analysis Date:	**9/18/2016**		SeqNo:	**1158230**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	11	0.50	10.00	2.213	89.5	83	118			

Sample ID	**1609601-004DMSD**	SampType:	**msd**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**MKTF-11**	Batch ID:	**R37299**		RunNo:	**37299**				
Prep Date:		Analysis Date:	**9/18/2016**		SeqNo:	**1158231**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	11	0.50	10.00	2.213	88.9	83	118	0.566	20	

Sample ID	**MB**	SampType:	**mblk**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBW**	Batch ID:	**R37469**		RunNo:	**37469**				
Prep Date:		Analysis Date:	**9/23/2016**		SeqNo:	**1165088**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID	**LCS**	SampType:	**lcs**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSW**	Batch ID:	**R37469**		RunNo:	**37469**				
Prep Date:		Analysis Date:	**9/23/2016**		SeqNo:	**1165089**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	98.6	90	110			
Nitrate+Nitrite as N	3.6	0.20	3.500	0	102	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **LCS-27491**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **27491**	RunNo: **37168**
Prep Date: **9/14/2016**	Analysis Date: **9/14/2016**	SeqNo: **1153596** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.1	1.0	5.000	0	121	63.2	155			
Surr: DNOP	0.56		0.5000		111	77.1	144			

Sample ID **MB-27491**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **27491**	RunNo: **37168**
Prep Date: **9/14/2016**	Analysis Date: **9/14/2016**	SeqNo: **1153597** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		111	77.1	144			

Sample ID **1609601-001BMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **MKTF-21**	Batch ID: **27491**	RunNo: **37169**
Prep Date: **9/14/2016**	Analysis Date: **9/14/2016**	SeqNo: **1153628** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	9.2	1.0	5.000	3.905	106	79.6	148			
Surr: DNOP	0.62		0.5000		124	77.1	144			

Sample ID **1609601-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **MKTF-21**	Batch ID: **27491**	RunNo: **37169**
Prep Date: **9/14/2016**	Analysis Date: **9/14/2016**	SeqNo: **1154006** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	9.2	1.0	5.000	3.905	105	79.6	148	0.664	20	
Surr: DNOP	0.61		0.5000		121	77.1	144	0	0	

Sample ID **LCS-27563**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **27563**	RunNo: **37287**
Prep Date: **9/19/2016**	Analysis Date: **9/19/2016**	SeqNo: **1158082** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.0	1.0	5.000	0	120	63.2	155			
Surr: DNOP	0.61		0.5000		123	77.1	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**
25-Oct-16

Client: Western Refining Southwest, Gallup
Project: 2016 3RD QTR (MKTF)

Sample ID **MB-27563**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **27563**	RunNo: **37287**
Prep Date: **9/19/2016**	Analysis Date: **9/19/2016**	SeqNo: **1158083** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		120	77.1	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **W37240**	RunNo: **37240**
Prep Date:	Analysis Date: **9/15/2016**	SeqNo: **1155809** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **W37240**	RunNo: **37240**
Prep Date:	Analysis Date: **9/15/2016**	SeqNo: **1155809** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.3	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		94.9	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.4		10.00		94.5	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **W37240**	RunNo: **37240**
Prep Date:	Analysis Date: **9/15/2016**	SeqNo: **1155810** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	108	70	130			
Toluene	20	1.0	20.00	0	98.1	70	130			
Chlorobenzene	19	1.0	20.00	0	95.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **W37240**	RunNo: **37240**
Prep Date:	Analysis Date: **9/15/2016**	SeqNo: **1155810** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	19	1.0	20.00	0	96.9	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.1	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.3	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	9.5		10.00		95.0	70	130			

Sample ID **1609601-002a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-20**	Batch ID: **W37240**	RunNo: **37240**
Prep Date:	Analysis Date: **9/15/2016**	SeqNo: **1155815** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19000	100	2000	17980	56.2	70	130			ES
Toluene	2300	100	2000	481.3	93.4	70	130			
Chlorobenzene	1800	100	2000	0	90.4	70	130			
1,1-Dichloroethene	1900	100	2000	0	93.5	70	130			
Trichloroethene (TCE)	1900	100	2000	0	94.9	70	130			
Surr: 1,2-Dichloroethane-d4	970		1000		97.2	70	130			
Surr: 4-Bromofluorobenzene	940		1000		93.8	70	130			
Surr: Dibromofluoromethane	980		1000		98.4	70	130			
Surr: Toluene-d8	920		1000		91.7	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **mb-27489**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **27489**	RunNo: **37269**
Prep Date: **9/14/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157087** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	6.6	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	5.6	10								J
Diethyl phthalate	ND	10								
Dimethyl phthalate	3.0	10								J
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	7.9	20								J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**
25-Oct-16

Client: Western Refining Southwest, Gallup
Project: 2016 3RD QTR (MKTF)

Sample ID **mb-27489**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **27489**	RunNo: **37269**
Prep Date: **9/14/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157087** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	2.9	10								J
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	2.5	10								J
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	96		200.0		48.1	15	123			
Surr: Phenol-d5	82		200.0		40.8	4.13	124			
Surr: 2,4,6-Tribromophenol	140		200.0		69.0	18.4	134			
Surr: Nitrobenzene-d5	65		100.0		64.9	28.8	134			
Surr: 2-Fluorobiphenyl	57		100.0		57.0	35.9	125			
Surr: 4-Terphenyl-d14	58		100.0		58.2	15	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **mb-27514**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **27514**	RunNo: **37269**
Prep Date: **9/15/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157088** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	7.8	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	5.0	10								J
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	3.5	10								J
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	3.1	10								J
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	7.9	20								J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **mb-27514**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **27514**	RunNo: **37269**
Prep Date: **9/15/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157088** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	2.5	10								J
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	130		200.0		64.9	15	123			
Surr: Phenol-d5	100		200.0		52.4	4.13	124			
Surr: 2,4,6-Tribromophenol	220		200.0		108	18.4	134			
Surr: Nitrobenzene-d5	85		100.0		84.6	28.8	134			
Surr: 2-Fluorobiphenyl	88		100.0		88.2	35.9	125			
Surr: 4-Terphenyl-d14	58		100.0		58.3	15	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **lcs-27489**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **27489**	RunNo: **37269**
Prep Date: **9/14/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157090** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	72	10	100.0	0	71.6	35	113			
4-Chloro-3-methylphenol	140	10	200.0	0	71.2	40.7	114			
2-Chlorophenol	140	10	200.0	0	70.9	37.6	113			
1,4-Dichlorobenzene	56	10	100.0	0	56.2	37.7	106			
2,4-Dinitrotoluene	67	10	100.0	0	67.2	37	91			
N-Nitrosodi-n-propylamine	73	10	100.0	0	72.5	45.4	105			
4-Nitrophenol	110	10	200.0	0	52.9	33.4	104			
Pentachlorophenol	120	20	200.0	0	58.0	29.5	94.9			
Phenol	110	10	200.0	0	57.3	30.6	119			
Pyrene	62	10	100.0	0	62.4	26.2	120			
1,2,4-Trichlorobenzene	62	10	100.0	0	62.2	39.9	125			
Surr: 2-Fluorophenol	120		200.0		60.1	15	123			
Surr: Phenol-d5	130		200.0		63.9	4.13	124			
Surr: 2,4,6-Tribromophenol	150		200.0		74.4	18.4	134			
Surr: Nitrobenzene-d5	70		100.0		69.6	28.8	134			
Surr: 2-Fluorobiphenyl	67		100.0		67.2	35.9	125			
Surr: 4-Terphenyl-d14	48		100.0		48.4	15	146			

Sample ID **lcs-27514**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **27514**	RunNo: **37269**
Prep Date: **9/15/2016**	Analysis Date: **9/16/2016**	SeqNo: **1157091** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	72	10	100.0	0	71.6	35	113			
4-Chloro-3-methylphenol	170	10	200.0	0	85.6	40.7	114			
2-Chlorophenol	160	10	200.0	0	78.1	37.6	113			
1,4-Dichlorobenzene	64	10	100.0	0	63.7	37.7	106			
2,4-Dinitrotoluene	75	10	100.0	0	75.2	37	91			
N-Nitrosodi-n-propylamine	84	10	100.0	0	84.0	45.4	105			
4-Nitrophenol	120	10	200.0	0	58.7	33.4	104			
Pentachlorophenol	140	20	200.0	0	69.0	29.5	94.9			
Phenol	130	10	200.0	0	64.0	30.6	119			
Pyrene	70	10	100.0	0	69.8	26.2	120			
1,2,4-Trichlorobenzene	74	10	100.0	0	73.8	39.9	125			
Surr: 2-Fluorophenol	130		200.0		66.0	15	123			
Surr: Phenol-d5	140		200.0		69.3	4.13	124			
Surr: 2,4,6-Tribromophenol	180		200.0		89.4	18.4	134			
Surr: Nitrobenzene-d5	79		100.0		79.4	28.8	134			
Surr: 2-Fluorobiphenyl	77		100.0		76.8	35.9	125			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID	**lcs-27514**	SampType:	**LCS**		TestCode:	**EPA Method 8270C: Semivolatiles**				
Client ID:	**LCSW**	Batch ID:	**27514**		RunNo:	**37269**				
Prep Date:	**9/15/2016**	Analysis Date:	**9/16/2016**		SeqNo:	**1157091**	Units:	**µg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	56		100.0		55.7	15	146			

Sample ID	**1609601-005cms**	SampType:	**MS**		TestCode:	**EPA Method 8270C: Semivolatiles**				
Client ID:	**MKTF-04**	Batch ID:	**27514**		RunNo:	**37278**				
Prep Date:	**9/15/2016**	Analysis Date:	**9/17/2016**		SeqNo:	**1157531**	Units:	**µg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	4.900	61.8	27.6	123			
4-Chloro-3-methylphenol	140	10	200.0	0	71.3	29.3	126			
2-Chlorophenol	130	10	200.0	0	66.0	15	133			
1,4-Dichlorobenzene	55	10	100.0	0	55.4	17.6	127			
2,4-Dinitrotoluene	64	10	100.0	0	64.1	38.9	98.5			
N-Nitrosodi-n-propylamine	69	10	100.0	0	68.9	25.9	131			
4-Nitrophenol	28	10	200.0	0	14.2	15	102			S
Pentachlorophenol	120	20	200.0	0	57.6	15	120			
Phenol	75	10	200.0	3.700	35.7	15	100			
Pyrene	67	10	100.0	3.260	63.9	22.8	126			
1,2,4-Trichlorobenzene	60	10	100.0	0	60.1	15	143			
Surr: 2-Fluorophenol	81		200.0		40.6	15	123			
Surr: Phenol-d5	75		200.0		37.5	4.13	124			
Surr: 2,4,6-Tribromophenol	150		200.0		75.0	18.4	134			
Surr: Nitrobenzene-d5	65		100.0		64.7	28.8	134			
Surr: 2-Fluorobiphenyl	65		100.0		65.0	35.9	125			
Surr: 4-Terphenyl-d14	45		100.0		44.7	15	146			

Sample ID	**1609601-005cmsd**	SampType:	**MSD**		TestCode:	**EPA Method 8270C: Semivolatiles**				
Client ID:	**MKTF-04**	Batch ID:	**27514**		RunNo:	**37278**				
Prep Date:	**9/15/2016**	Analysis Date:	**9/17/2016**		SeqNo:	**1157533**	Units:	**µg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	95	10	100.0	4.900	89.9	27.6	123	34.8	31.3	R
4-Chloro-3-methylphenol	190	10	200.0	0	96.0	29.3	126	29.6	29	R
2-Chlorophenol	170	10	200.0	0	84.0	15	133	24.0	28.4	
1,4-Dichlorobenzene	73	10	100.0	0	73.0	17.6	127	27.5	28.2	
2,4-Dinitrotoluene	91	10	100.0	0	90.8	38.9	98.5	34.5	22.9	R
N-Nitrosodi-n-propylamine	94	10	100.0	0	94.5	25.9	131	31.3	28.8	R
4-Nitrophenol	33	10	200.0	0	16.4	15	102	14.9	41.5	
Pentachlorophenol	140	20	200.0	0	70.6	15	120	20.4	45.1	
Phenol	100	10	200.0	3.700	48.5	15	100	29.2	33.9	
Pyrene	89	10	100.0	3.260	86.0	22.8	126	28.3	33.6	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **1609601-005cmsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **MKTF-04**	Batch ID: **27514**	RunNo: **37278**
Prep Date: **9/15/2016**	Analysis Date: **9/17/2016**	SeqNo: **1157533** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	82	10	100.0	0	82.3	15	143	31.1	28.2	R
Surr: 2-Fluorophenol	97		200.0		48.6	15	123	0	0	
Surr: Phenol-d5	100		200.0		50.0	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	200		200.0		99.9	18.4	134	0	0	
Surr: Nitrobenzene-d5	87		100.0		86.6	28.8	134	0	0	
Surr: 2-Fluorobiphenyl	88		100.0		87.9	35.9	125	0	0	
Surr: 4-Terphenyl-d14	58		100.0		58.0	15	146	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609601**

25-Oct-16

Client: Western Refining Southwest, Gallup

Project: 2016 3RD QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G37240**	RunNo: **37240**
Prep Date:	Analysis Date: **9/15/2016**	SeqNo: **1155943** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.6		10.00		95.5	70	130			

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G37240**	RunNo: **37240**
Prep Date:	Analysis Date: **9/15/2016**	SeqNo: **1155944** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.49	0.050	0.5000	0	97.2	75.4	118			
Surr: BFB	9.7		10.00		96.7	70	130			

Sample ID **1609601-001a ms**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-21**	Batch ID: **G37240**	RunNo: **37240**
Prep Date:	Analysis Date: **9/15/2016**	SeqNo: **1157437** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	48	2.5	25.00	27.55	83.7	53.8	128			
Surr: BFB	480		500.0		96.4	70	130			

Sample ID **1609601-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-21**	Batch ID: **G37240**	RunNo: **37240**
Prep Date:	Analysis Date: **9/15/2016**	SeqNo: **1157438** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	56	2.5	25.00	27.55	112	53.8	128	13.6	20	
Surr: BFB	490		500.0		97.2	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1609601 RcptNo: 1

Received by/date: 09/12/16
Logged By: Ashley Gallegos 9/12/2016 3:20:00 PM
Completed By: Ashley Gallegos 9/13/2016 10:50:57 AM
Reviewed By: AJ 09/13/16

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☑ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
8. Are samples (except VOA and ONG) properly preserved? ~~Yes~~ ☑ No ☑
9. Was preservative added to bottles? Yes ☑ ~~No~~ ☑ NA ☐

JC 09/13/16

10. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☑
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
14. Is it clear what analyses were requested? Yes ☑ No ☐
15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: 36 (<2 or >12 unless noted)
Adjusted? yes
Checked by: JC

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: ____ Date ____
By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: ____
Client Instructions: ____

17. Additional remarks: For metals analysis, added 1mL HNO3 to -004F, -006F, -008F, and -013F
18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609D601
9/12/16	0840	WATER	MKTF-21	40 ML VOA-6	HCL	-001
				2L AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				500 ML PLASTIC-1	HNO_3	
				500 ML PLASTIC-1	NEAT	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
9/12/16	0925	WATER	MKTF-20	40 ML VOA-6	HCL	-002
				1 LITER AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				500 ML PLASTIC-1	HNO_3	
				500 ML PLASTIC	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations/Anions	WQCC Metals (Total & Dissolved)		Air Bubbles (Y or N)
		✓							✓					
										✓				
		✓												
												✓		
												✓		
											✓	✓		
											✓			
		✓							✓					
										✓				
		✓												
												✓		
												✓		

Relinquished by: Date 9/12/16 Time 1200
Received by: Date 9/12/16 Time 1415
Relinquished by: Date 9/12/16 Time 1520
Received by: Date 09/12/16 Time 1520

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
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4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609D601
9/12/16	0925	WATER	MKTF-20	125 mL PLASTIC-1	HNO_3	-002
				125 mL PLASTIC-1	H_2SO_4	
9/12/16	1010	WATER	MKTF-16	40 mL VOA-6	HCL	-003
				1 L AMBER-1	NEAT	
				250 mL AMBER-1	NEAT	
				500 mL PLASTIC-1	HNO_3	
				500 mL PLASTIC-1	NEAT	
				125 mL PLASTIC-1	HNO_3	
				125 mL PLASTIC-1	H_2SO_4	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations/Anions	WQCC Metals	(Total & Dissolved)		Air Bubbles (Y or N)
		·									✓				
											✓				
		✓							✓						
										✓					
		✓													
												✓			
												✓			
											✓	✓			
											✓				

Date: 9/12/16 Time: 1200 Relinquished by:
Received by: Date: 9/13/16 Time: 1415

Date: 9/13/16 Time: 1520 Relinquished by:
Received by: Date: 09/12/16 Time: 1520

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609601	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)		Air Bubbles (Y or N)
9/1/16	1330	WATER	MKTF-11	40 ML VOA-6	HCL	-004			✓							✓						
				1 L AMBER-1	NEAT												✓					
				250 ML AMBER-1	NEAT				✓													
				500 ML PLASTIC-1	HNO_3														✓			
				125 ML PLASTIC-1	HNO_3													✓	✓			
				125 ML PLASTIC-1	H_2SO_4													✓				
↓	↓	↓	↓	500 ML PLASTIC-1	NEAT	-005													✓			
9/1/16	1445	WATER	MKTF-04	40 ML VOA-6	HCL	-005			✓							✓						
				1 L AMBER-2	NEAT												✓					
				250 ML AMBER-1	NEAT				✓													
				500 ML PLASTIC-1	HNO_3														✓			
				125 ML PLASTIC-1	HNO_3													✓	✓			
↓	↓	↓	↓																			

Date	Time	Relinquished by:	Received by:	Date	Time
9/12/16	0700			9/12/16	1445
9/12/16	1520			09/12/16	1520

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609601	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS (TOTAL & DISSOLVED)		Air Bubbles (Y or N)
9/11/16	1445	WATER	MKTF-04	125 ML PLASTIC-1	H_2SO_4	-005												✓			
↓	↓	↓	↓	500 ML PLASTIC-1	NEAT														✓		
9/11/16	1500	WATER	MKTF-10	40 ML VOA-6	HCL	-006			✓							✓					
				1 L AMBER-1	NEAT												✓				
				250 ML AMBER-1	NEAT				✓												
				500 ML AMBER-1	HNO_3														✓		
				125 ML AMBER-1	HNO_3													✓	✓		
				125 ML AMBER-1	H_2SO_4													✓			
				500 ML AMBER-1	NEAT														✓		
9/11/16	1620	WATER	MKTF-09	40 ML VOA-6	HCL	-007			✓							✓					
				1 L AMBER-1	NEAT												✓				
				250 ML AMBER-1	NEAT				✓												

Date: 9/12/16 Time: 0700 Relinquished by: [signature]
Received by: [signature] Date: 9/13/16 Time: 1415

Date: 9/14 Time: 1500 Relinquished by: [signature]
Received by: [signature] Date: 09/12/16 Time: ~~0940~~ 1520

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
						1609601
9/11/16	1620	WATER	MKTF-09	500 ML PLASTIC-1	HNO_3	-007
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	
9/11/16	1645	WATER	MKTF-15	40 ML VOA-6	HCL	-008
				1 L AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				500 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations/Anions	WQCC Metals (Total & Dissolved)		Air Bubbles (Y or N)
												✓		
											✓	✓		
											✓			
												✓		
		✓							✓					
										✓				
		✓												
												✓		
											✓	✓		
											✓			
												✓		

Date: 9/12/16 Time: 0700 Relinquished by:
Received by: Date: 9/12/16 Time: 1415

Date: 9/12/16 Time: 1520 Relinquished by:
Received by: Date: 09/12/16 Time: 0940-1520

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
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Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package:
☐ Standard ☒ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
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4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609G001	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)		Air Bubbles (Y or N)
9/6/16	1520	WATER	MKTF-33	40 ML VOA-6	HCL	-009			✓							✓						
				1 L AMBER-1	NEAT												✓					
				250 ML AMBER-1	NEAT				✓													
				500 ML PLASTIC-1	HNO_3														✓			
				125 ML PLASTIC-1	HNO_3													✓	✓			
				125 ML PLASTIC-1	H_2SO_4													✓				
				500 ML PLASTIC-1	NEAT														✓			
9/9/16	1600	WATER	MKTF-22	40 ML VOA-6	HCL	-010			✓							✓						
				1 L AMBER-1	NEAT												✓					
				250 ML AMBER-1	NEAT				✓													
				500 ML PLASTIC-1	HNO_3														✓			
				125 ML PLASTIC-1	HNO_3													✓	✓			

Date: 9/12/16 Time: 0700 Relinquished by: [signature]
Received by: [signature] Date: 9/12/16 Time: 1145

Date: 9/12/16 Time: 1520 Relinquished by: [signature]
Received by: [signature] Date: 09/12/16 Time: 1520

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package:
☐ Standard ☒ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☐ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

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Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609601
9/10/16	1600	WATER	MKTF-22	125 ML PLASTIC-1	H_2SO_4	-010
↓	↓	↓	↓	500 ML PLASTIC-1	NEAT	
9/10/16	—	WATER	TRIP BLANK	40 ML VOA-4	HCL	-011

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)		Air Bubbles (Y or N)
											✓				
												✓			
									✓						

Date	Time	Relinquished by:	Received by:	Date	Time
9/12/16	0700			9/12/16	1415
9/12/16	1520			09/12/16	1520

Remarks:

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Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

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Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS / ANIONS	WQCC METALS (TOTAL & DISSOLVED)		Air Bubbles (Y or N)
9/1/16	1655	WATER	FB0911116	40 ML VOA-6	HCL	1609601 -012			✓							✓					
				1 LITER AMBER-1	NEAT												✓				
				250 ML AMBER-1	NEAT				✓												
				500 ML PLASTIC-1	HNO_3														✓		
				125 ML PLASTIC-1	HNO_3													✓	✓		
				125 ML PLASTIC-1	H_2SO_4													✓			
			✓	500 ML PLASTIC-1	NEAT														✓		
9/1/16	—	WATER	DUP04	40 ML VOA-6	HCL	-013															
				1 LITER AMBER-1	NEAT																
				250 ML AMBER-1	NEAT																
				500 ML PLASTIC-1	HNO_3																
			✓	125 ML PLASTIC-1	HNO_3																

Date: 9/2/16 Time: 0700 Relinquished by: [signature]
Received by: [signature] Date: 9/2/16 Time: 1115

Date: 9/2/16 Time: 1500 Relinquished by: [signature]
Received by: [signature] Date: 09/12/16 Time: 1015

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: NELAP ☐ Other
EDD (Type) EXCEL

Turn-Around Time: [X] Standard ☐ Rush
Project Name: 2016 3RD QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes ☐ No
Sample Temperature: 1.0

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4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
9/11/16	—	WATER	DUP 04	125 mL Plastic-1	H_2SO_4	1609601-013
↓	↓	↓	↓	500 mL Plastic-1	NEAT	
2						

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations/Anions	WQCC Metals	(Total & Dissolved)		Air Bubbles (Y or N)
											✓				
												✓			

Date:	Time:	Relinquished by:	Received by:	Date	Time
9/12/16	0700			9/12/16	1415
Date:	Time:	Relinquished by:	Received by:	Date	Time
9/12/16	1520			09/12/16	1520

Remarks:

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HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 23, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 Annual OrderNo.: 1609783

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 9/16/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-2
Project: 2016 Annual
Collection Date: 9/13/2016 9:00:00 AM
Lab ID: 1609783-001
Matrix: AQUEOUS
Received Date: 9/16/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	14	0.69	1.0		mg/L	1	9/20/2016 10:22:28 PM	27563
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/20/2016 10:22:28 PM	27563
Surr: DNOP	135	0	77.1-144		%Rec	1	9/20/2016 10:22:28 PM	27563
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	38000	190	2000		µg/L	2000	9/20/2016 12:30:03 AM	R37308
Toluene	3800	24	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
Ethylbenzene	1200	22	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
Methyl tert-butyl ether (MTBE)	1600	42	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
1,2,4-Trimethylbenzene	210	22	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
1,3,5-Trimethylbenzene	44	23	200	J	µg/L	200	9/20/2016 12:58:47 AM	R37308
1,2-Dichloroethane (EDC)	ND	23	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
1,2-Dibromoethane (EDB)	ND	22	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
Naphthalene	140	19	400	J	µg/L	200	9/20/2016 12:58:47 AM	R37308
1-Methylnaphthalene	88	41	800	J	µg/L	200	9/20/2016 12:58:47 AM	R37308
2-Methylnaphthalene	ND	32	800		µg/L	200	9/20/2016 12:58:47 AM	R37308
Acetone	ND	980	2000		µg/L	200	9/20/2016 12:58:47 AM	R37308
Bromobenzene	ND	20	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
Bromodichloromethane	ND	28	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
Bromoform	ND	20	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
Bromomethane	ND	160	600		µg/L	200	9/20/2016 12:58:47 AM	R37308
2-Butanone	ND	150	2000		µg/L	200	9/20/2016 12:58:47 AM	R37308
Carbon disulfide	ND	120	2000		µg/L	200	9/20/2016 12:58:47 AM	R37308
Carbon Tetrachloride	ND	22	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
Chlorobenzene	ND	23	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
Chloroethane	ND	38	400		µg/L	200	9/20/2016 12:58:47 AM	R37308
Chloroform	ND	18	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
Chloromethane	ND	43	600		µg/L	200	9/20/2016 12:58:47 AM	R37308
2-Chlorotoluene	ND	80	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
4-Chlorotoluene	ND	26	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
cis-1,2-DCE	ND	25	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
cis-1,3-Dichloropropene	ND	21	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
1,2-Dibromo-3-chloropropane	ND	47	400		µg/L	200	9/20/2016 12:58:47 AM	R37308
Dibromochloromethane	ND	17	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
Dibromomethane	ND	24	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
1,2-Dichlorobenzene	ND	80	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
1,3-Dichlorobenzene	ND	29	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
1,4-Dichlorobenzene	ND	29	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
Dichlorodifluoromethane	ND	71	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
1,1-Dichloroethane	ND	22	200		µg/L	200	9/20/2016 12:58:47 AM	R37308

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-2
Project: 2016 Annual
Collection Date: 9/13/2016 9:00:00 AM
Lab ID: 1609783-001
Matrix: AQUEOUS
Received Date: 9/16/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloroethene	ND	21	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
1,2-Dichloropropane	ND	22	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
1,3-Dichloropropane	ND	31	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
2,2-Dichloropropane	ND	33	400		µg/L	200	9/20/2016 12:58:47 AM	R37308
1,1-Dichloropropene	ND	27	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
Hexachlorobutadiene	ND	40	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
2-Hexanone	ND	170	2000		µg/L	200	9/20/2016 12:58:47 AM	R37308
Isopropylbenzene	30	21	200	J	µg/L	200	9/20/2016 12:58:47 AM	R37308
4-Isopropyltoluene	ND	28	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
4-Methyl-2-pentanone	ND	86	2000		µg/L	200	9/20/2016 12:58:47 AM	R37308
Methylene Chloride	ND	37	600		µg/L	200	9/20/2016 12:58:47 AM	R37308
n-Butylbenzene	ND	32	600		µg/L	200	9/20/2016 12:58:47 AM	R37308
n-Propylbenzene	56	26	200	J	µg/L	200	9/20/2016 12:58:47 AM	R37308
sec-Butylbenzene	ND	25	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
Styrene	ND	22	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
tert-Butylbenzene	ND	23	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
1,1,1,2-Tetrachloroethane	ND	22	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
1,1,2,2-Tetrachloroethane	ND	26	400		µg/L	200	9/20/2016 12:58:47 AM	R37308
Tetrachloroethene (PCE)	ND	30	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
trans-1,2-DCE	ND	80	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
trans-1,3-Dichloropropene	ND	21	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
1,2,3-Trichlorobenzene	ND	23	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
1,2,4-Trichlorobenzene	ND	27	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
1,1,1-Trichloroethane	ND	18	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
1,1,2-Trichloroethane	ND	25	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
Trichloroethene (TCE)	ND	35	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
Trichlorofluoromethane	ND	41	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
1,2,3-Trichloropropane	ND	40	400		µg/L	200	9/20/2016 12:58:47 AM	R37308
Vinyl chloride	ND	39	200		µg/L	200	9/20/2016 12:58:47 AM	R37308
Xylenes, Total	3100	73	300		µg/L	200	9/20/2016 12:58:47 AM	R37308
Surr: 1,2-Dichloroethane-d4	95.6	0	70-130		%Rec	200	9/20/2016 12:58:47 AM	R37308
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	200	9/20/2016 12:58:47 AM	R37308
Surr: Dibromofluoromethane	97.2	0	70-130		%Rec	200	9/20/2016 12:58:47 AM	R37308
Surr: Toluene-d8	101	0	70-130		%Rec	200	9/20/2016 12:58:47 AM	R37308
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	140	3.0	10		mg/L	200	9/20/2016 12:58:47 AM	G37308
Surr: BFB	102	0	70-130		%Rec	200	9/20/2016 12:58:47 AM	G37308

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-5
Project: 2016 Annual
Collection Date: 9/13/2016 9:40:00 AM
Lab ID: 1609783-002
Matrix: AQUEOUS
Received Date: 9/16/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	5.4	0.69	1.0		mg/L	1	9/20/2016 10:44:00 PM	27563
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	9/20/2016 10:44:00 PM	27563
Surr: DNOP	128	0	77.1-144		%Rec	1	9/20/2016 10:44:00 PM	27563
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	570	4.8	50		µg/L	50	9/20/2016 4:02:59 PM	R37339
Toluene	3.5	0.59	5.0	J	µg/L	5	9/20/2016 3:51:21 AM	R37308
Ethylbenzene	260	0.56	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
1,2,4-Trimethylbenzene	49	0.55	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
1,3,5-Trimethylbenzene	13	0.58	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
Naphthalene	130	0.46	10		µg/L	5	9/20/2016 3:51:21 AM	R37308
1-Methylnaphthalene	97	1.0	20		µg/L	5	9/20/2016 3:51:21 AM	R37308
2-Methylnaphthalene	120	0.79	20		µg/L	5	9/20/2016 3:51:21 AM	R37308
Acetone	ND	25	50		µg/L	5	9/20/2016 3:51:21 AM	R37308
Bromobenzene	ND	0.49	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
Bromodichloromethane	ND	0.70	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
Bromoform	ND	0.51	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
Bromomethane	ND	3.9	15		µg/L	5	9/20/2016 3:51:21 AM	R37308
2-Butanone	5.3	3.7	50	J	µg/L	5	9/20/2016 3:51:21 AM	R37308
Carbon disulfide	ND	3.0	50		µg/L	5	9/20/2016 3:51:21 AM	R37308
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
Chlorobenzene	ND	0.57	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
Chloroethane	ND	0.96	10		µg/L	5	9/20/2016 3:51:21 AM	R37308
Chloroform	ND	0.44	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
Chloromethane	ND	1.1	15		µg/L	5	9/20/2016 3:51:21 AM	R37308
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	9/20/2016 3:51:21 AM	R37308
Dibromochloromethane	ND	0.43	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
Dibromomethane	ND	0.60	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-5
Project: 2016 Annual
Collection Date: 9/13/2016 9:40:00 AM
Lab ID: 1609783-002
Matrix: AQUEOUS
Received Date: 9/16/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
2,2-Dichloropropane	ND	0.83	10		µg/L	5	9/20/2016 3:51:21 AM	R37308
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
2-Hexanone	ND	4.2	50		µg/L	5	9/20/2016 3:51:21 AM	R37308
Isopropylbenzene	16	0.52	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
4-Isopropyltoluene	5.5	0.70	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	9/20/2016 3:51:21 AM	R37308
Methylene Chloride	ND	0.94	15		µg/L	5	9/20/2016 3:51:21 AM	R37308
n-Butylbenzene	12	0.80	15	J	µg/L	5	9/20/2016 3:51:21 AM	R37308
n-Propylbenzene	37	0.66	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
sec-Butylbenzene	7.5	0.62	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
Styrene	ND	0.55	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	9/20/2016 3:51:21 AM	R37308
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	9/20/2016 3:51:21 AM	R37308
Vinyl chloride	ND	0.98	5.0		µg/L	5	9/20/2016 3:51:21 AM	R37308
Xylenes, Total	120	1.8	7.5		µg/L	5	9/20/2016 3:51:21 AM	R37308
Surr: 1,2-Dichloroethane-d4	87.5	0	70-130		%Rec	5	9/20/2016 3:51:21 AM	R37308
Surr: 4-Bromofluorobenzene	83.7	0	70-130		%Rec	5	9/20/2016 3:51:21 AM	R37308
Surr: Dibromofluoromethane	93.5	0	70-130		%Rec	5	9/20/2016 3:51:21 AM	R37308
Surr: Toluene-d8	99.3	0	70-130		%Rec	5	9/20/2016 3:51:21 AM	R37308
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	6.4	0.075	0.25		mg/L	5	9/20/2016 3:51:21 AM	G37308
Surr: BFB	98.4	0	70-130		%Rec	5	9/20/2016 3:51:21 AM	G37308

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-6
Project: 2016 Annual
Collection Date: 9/13/2016 10:25:00 AM
Lab ID: 1609783-003
Matrix: AQUEOUS
Received Date: 9/16/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	1200	69	100		mg/L	100	9/20/2016 11:05:43 PM	27563
Motor Oil Range Organics (MRO)	ND	500	500		mg/L	100	9/20/2016 11:05:43 PM	27563
Surr: DNOP	0	0	77.1-144	S	%Rec	100	9/20/2016 11:05:43 PM	27563
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	280	0.96	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
Toluene	110	1.2	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
Ethylbenzene	290	1.1	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
Methyl tert-butyl ether (MTBE)	17	2.1	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
1,2,4-Trimethylbenzene	64	1.1	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
1,3,5-Trimethylbenzene	120	1.2	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
1,2-Dichloroethane (EDC)	ND	1.2	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
Naphthalene	550	0.93	20		µg/L	10	9/20/2016 4:20:11 AM	R37308
1-Methylnaphthalene	280	2.0	40		µg/L	10	9/20/2016 4:20:11 AM	R37308
2-Methylnaphthalene	370	1.6	40		µg/L	10	9/20/2016 4:20:11 AM	R37308
Acetone	ND	49	100		µg/L	10	9/20/2016 4:20:11 AM	R37308
Bromobenzene	ND	0.98	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
Bromodichloromethane	ND	1.4	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
Bromoform	ND	1.0	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
Bromomethane	ND	7.8	30		µg/L	10	9/20/2016 4:20:11 AM	R37308
2-Butanone	9.3	7.4	100	J	µg/L	10	9/20/2016 4:20:11 AM	R37308
Carbon disulfide	ND	6.0	100		µg/L	10	9/20/2016 4:20:11 AM	R37308
Carbon Tetrachloride	ND	1.1	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
Chlorobenzene	ND	1.1	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
Chloroethane	ND	1.9	20		µg/L	10	9/20/2016 4:20:11 AM	R37308
Chloroform	ND	0.89	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
Chloromethane	ND	2.1	30		µg/L	10	9/20/2016 4:20:11 AM	R37308
2-Chlorotoluene	ND	4.0	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
4-Chlorotoluene	ND	1.3	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
cis-1,2-DCE	ND	1.2	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	9/20/2016 4:20:11 AM	R37308
Dibromochloromethane	ND	0.87	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
Dibromomethane	ND	1.2	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
1,1-Dichloroethane	ND	1.1	10		µg/L	10	9/20/2016 4:20:11 AM	R37308

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-6
Project: 2016 Annual
Collection Date: 9/13/2016 10:25:00 AM
Lab ID: 1609783-003
Matrix: AQUEOUS
Received Date: 9/16/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloroethene	ND	1.1	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
1,2-Dichloropropane	ND	1.1	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
1,3-Dichloropropane	ND	1.6	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
2,2-Dichloropropane	ND	1.7	20		µg/L	10	9/20/2016 4:20:11 AM	R37308
1,1-Dichloropropene	ND	1.3	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
Hexachlorobutadiene	ND	2.0	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
2-Hexanone	ND	8.4	100		µg/L	10	9/20/2016 4:20:11 AM	R37308
Isopropylbenzene	28	1.0	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
4-Isopropyltoluene	14	1.4	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	9/20/2016 4:20:11 AM	R37308
Methylene Chloride	ND	1.9	30		µg/L	10	9/20/2016 4:20:11 AM	R37308
n-Butylbenzene	20	1.6	30	J	µg/L	10	9/20/2016 4:20:11 AM	R37308
n-Propylbenzene	55	1.3	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
sec-Butylbenzene	11	1.2	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
Styrene	ND	1.1	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
tert-Butylbenzene	ND	1.2	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	9/20/2016 4:20:11 AM	R37308
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
trans-1,2-DCE	ND	4.0	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
1,1,1-Trichloroethane	ND	0.91	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
Trichlorofluoromethane	ND	2.0	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	9/20/2016 4:20:11 AM	R37308
Vinyl chloride	ND	2.0	10		µg/L	10	9/20/2016 4:20:11 AM	R37308
Xylenes, Total	810	3.7	15		µg/L	10	9/20/2016 4:20:11 AM	R37308
Surr: 1,2-Dichloroethane-d4	93.9	0	70-130		%Rec	10	9/20/2016 4:20:11 AM	R37308
Surr: 4-Bromofluorobenzene	86.4	0	70-130		%Rec	10	9/20/2016 4:20:11 AM	R37308
Surr: Dibromofluoromethane	97.1	0	70-130		%Rec	10	9/20/2016 4:20:11 AM	R37308
Surr: Toluene-d8	99.2	0	70-130		%Rec	10	9/20/2016 4:20:11 AM	R37308
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **AG**	
Gasoline Range Organics (GRO)	11	0.15	0.50		mg/L	10	9/20/2016 4:20:11 AM	G37308
Surr: BFB	104	0	70-130		%Rec	10	9/20/2016 4:20:11 AM	G37308

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-1
Project: 2016 Annual
Collection Date: 9/13/2016 1:11:00 PM
Lab ID: 1609783-004
Matrix: PRODUCT
Received Date: 9/16/2016 2:00:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
DRO BY 8015D							Analyst: **TOM**	
Diesel Range Organics (DRO)	8.2	0.82	0.82		wt%	10	9/22/2016 10:38:31 AM	27643
Motor Oil Range Organics (MRO)	ND	4.1	4.1		wt%	10	9/22/2016 10:38:31 AM	27643
Surr: DNOP	0	0	55.7-125	S	%Rec	10	9/22/2016 10:38:31 AM	27643

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609783**

23-Sep-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **LCS-27643**	SampType: **LCS**	TestCode: **DRO by 8015D**							
Client ID: **LCSW**	Batch ID: **27643**	RunNo: **37357**							
Prep Date: **9/21/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161366**	Units: **wt%**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	0.48	0.10	0.5000	0	96.4	70.8	122			
Surr: DNOP	0.046		0.05000		91.9	55.7	125			

Sample ID **LCSD-27643**	SampType: **LCSD**	TestCode: **DRO by 8015D**							
Client ID: **LCSS02**	Batch ID: **27643**	RunNo: **37357**							
Prep Date: **9/21/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161367**	Units: **wt%**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	0.49	0.10	0.5000	0	98.8	70.8	122	2.47	20	
Surr: DNOP	0.047		0.05000		94.8	55.7	125	0	0	

Sample ID **MB-27643**	SampType: **MBLK**	TestCode: **DRO by 8015D**							
Client ID: **PBW**	Batch ID: **27643**	RunNo: **37357**							
Prep Date: **9/21/2016**	Analysis Date: **9/21/2016**	SeqNo: **1161368**	Units: **wt%**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	0.10								
Motor Oil Range Organics (MRO)	ND	0.50								
Surr: DNOP	0.099		0.1000		98.8	55.7	125			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609783**

23-Sep-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **LCS-27563**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **27563**	RunNo: **37287**
Prep Date: **9/19/2016**	Analysis Date: **9/19/2016**	SeqNo: **1158082** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.0	1.0	5.000	0	120	63.2	155			
Surr: DNOP	0.61		0.5000		123	77.1	144			

Sample ID **MB-27563**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **27563**	RunNo: **37287**
Prep Date: **9/19/2016**	Analysis Date: **9/19/2016**	SeqNo: **1158083** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		120	77.1	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609783**

23-Sep-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R37308**	RunNo: **37308**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1158590** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.6	70	130			
Toluene	19	1.0	20.00	0	96.8	70	130			
Chlorobenzene	18	1.0	20.00	0	92.5	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	90.9	70	130			
Trichloroethene (TCE)	16	1.0	20.00	0	80.8	70	130			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.1	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.1	70	130			
Surr: Dibromofluoromethane	9.4		10.00		93.5	70	130			
Surr: Toluene-d8	9.9		10.00		99.4	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37308**	RunNo: **37308**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1158591** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609783**

23-Sep-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37308**	RunNo: **37308**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1158591** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609783**

23-Sep-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37308**	RunNo: **37308**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1158591** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.2	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.5	70	130			
Surr: Dibromofluoromethane	9.8		10.00		97.9	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R37339**	RunNo: **37339**
Prep Date:	Analysis Date: **9/20/2016**	SeqNo: **1159861** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.2	70	130			
Surr: Dibromofluoromethane	10		10.00		99.6	70	130			
Surr: Toluene-d8	10		10.00		99.7	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R37339**	RunNo: **37339**
Prep Date:	Analysis Date: **9/20/2016**	SeqNo: **1159862** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.6	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.4	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1609783**

23-Sep-16

Client: Western Refining Southwest, Gallup

Project: 2016 Annual

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G37308**	RunNo: **37308**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1159428** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.49	0.050	0.5000	0	97.7	75.4	118			
Surr: BFB	9.7		10.00		97.3	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G37308**	RunNo: **37308**
Prep Date:	Analysis Date: **9/19/2016**	SeqNo: **1159429** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.019	0.050								J
Surr: BFB	10		10.00		103	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1609783 RcptNo: 1

Received by/date: MG 09/14/16

Logged By: Ashley Gallegos 9/14/2016 5:00:00 PM

Completed By: Ashley Gallegos 9/14/2016 5:49:26 PM

Reviewed By: 09/17/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING ROAD, GALLUP, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:

X Standard ☐ Rush_____

Project Name:

2016 ANNUAL

Project #:

RW Wells

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1609783	8260+MTBE	8015D (DRO/GRO/MRO)	Air Bubbles (Y or N)
9/13/2016	900	AQUEOUS	RW-2	MISC	MISC	-001	X	X	
9/13/2016	940	AQUEOUS	RW-5	MISC	MISC	-002	X	X	
9/13/2016	1025	AQUEOUS	RW-6	MISC	MISC	-003	X	X	
9/13/2016	1311	AQUEOUS	RW-1 *	1L-Amber	None	-004		X	

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time
9-14-16	0800			9/14/16	1500
Date:	Time:	Relinquished by:	Received by:	Date	Time
9/14/16	1700		Michelle Garcia	09/14/16	1700

Remarks: *FOR RW-1 - will need copy of GC Data.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 19, 2017

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 4th QTR Ground Water OrderNo.: 1611792

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 10 sample(s) on 11/15/2016 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued December 19, 2016.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 7:00:00 AM
Lab ID: 1611792-001 **Matrix:** AQUEOUS **Received Date:** 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Toluene	ND	0.12	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Naphthalene	ND	0.093	2.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Acetone	ND	4.9	10		µg/L	1	11/17/2016 6:03:57 PM	R38783
Bromobenzene	ND	0.098	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Bromoform	ND	0.10	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Bromomethane	ND	0.78	3.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
2-Butanone	ND	0.74	10		µg/L	1	11/17/2016 6:03:57 PM	R38783
Carbon disulfide	ND	0.60	10		µg/L	1	11/17/2016 6:03:57 PM	R38783
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Chloroethane	ND	0.19	2.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Chloroform	ND	0.089	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Chloromethane	ND	0.21	3.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Dibromomethane	ND	0.12	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/17/2016 6:03:57 PM	R38783

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 7:00:00 AM
Lab ID: 1611792-001
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
2-Hexanone	ND	0.84	10		µg/L	1	11/17/2016 6:03:57 PM	R38783
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/17/2016 6:03:57 PM	R38783
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Styrene	ND	0.11	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/17/2016 6:03:57 PM	R38783
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/17/2016 6:03:57 PM	R38783
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	1	11/17/2016 6:03:57 PM	R38783
Surr: 4-Bromofluorobenzene	99.4	0	70-130		%Rec	1	11/17/2016 6:03:57 PM	R38783
Surr: Dibromofluoromethane	107	0	70-130		%Rec	1	11/17/2016 6:03:57 PM	R38783
Surr: Toluene-d8	101	0	70-130		%Rec	1	11/17/2016 6:03:57 PM	R38783

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-30
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 8:20:00 AM
Lab ID: 1611792-002
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	11/21/2016 7:07:50 PM	28776
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/17/2016 11:03:20 PM	28698
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/17/2016 11:03:20 PM	28698
Surr: DNOP	106	0	77.1-144		%Rec	1	11/17/2016 11:03:20 PM	28698
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	5.2	0.25	0.50		mg/L	10	11/16/2016 4:09:11 PM	G38747
Surr: BFB	92.6	0	66.4-120		%Rec	10	11/16/2016 4:09:11 PM	G38747
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.10	0.0013	0.0020		mg/L	1	12/9/2016 1:26:51 PM	A39280
Cadmium	ND	0.00075	0.0020		mg/L	1	12/9/2016 1:26:51 PM	A39280
Chromium	ND	0.0018	0.0060		mg/L	1	12/9/2016 1:26:51 PM	A39280
Copper	ND	0.0040	0.0060		mg/L	1	12/9/2016 1:26:51 PM	A39280
Iron	0.087	0.020	0.020		mg/L	1	12/9/2016 1:26:51 PM	A39280
Manganese	0.031	0.00032	0.0020		mg/L	1	12/9/2016 1:26:51 PM	A39280
Silver	ND	0.0028	0.0050		mg/L	1	12/9/2016 1:26:51 PM	A39280
Zinc	ND	0.0028	0.010		mg/L	1	12/9/2016 1:26:51 PM	A39280
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.11	0.00079	0.0020		mg/L	1	12/8/2016 3:12:34 PM	29034
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 3:12:34 PM	29034
Chromium	ND	0.0027	0.0060		mg/L	1	12/8/2016 3:12:34 PM	29034
Copper	ND	0.0030	0.0060		mg/L	1	12/8/2016 3:12:34 PM	29034
Iron	0.095	0.020	0.020		mg/L	1	12/8/2016 3:12:34 PM	29034
Manganese	0.038	0.00027	0.0020		mg/L	1	12/8/2016 3:12:34 PM	29034
Silver	ND	0.0015	0.0050		mg/L	1	12/9/2016 11:28:38 AM	29034
Zinc	ND	0.0027	0.010		mg/L	1	12/8/2016 3:12:34 PM	29034
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0032	0.00069	0.0050	J	mg/L	5	11/30/2016 4:51:50 PM	R39071
Lead	0.00028	0.00017	0.00050	J	mg/L	1	11/28/2016 5:20:05 PM	C39007
Selenium	0.0094	0.0042	0.020	J	mg/L	20	11/30/2016 5:07:17 PM	R39071
Uranium	0.044	0.00026	0.0025	*	mg/L	5	11/30/2016 4:51:50 PM	R39071
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0038	0.0011	0.0050	J	mg/L	5	12/8/2016 3:13:43 PM	29034
Lead	0.00028	0.000081	0.00050	J	mg/L	1	12/7/2016 4:21:15 PM	29034
Selenium	0.0061	0.0037	0.020	J	mg/L	20	12/8/2016 3:18:51 PM	29034
Uranium	0.046	0.00087	0.0025	*	mg/L	5	12/8/2016 3:13:43 PM	29034

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-30
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 8:20:00 AM
Lab ID: 1611792-002
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	0.000088	0.000053	0.00020	J	mg/L	1	12/1/2016 9:50:37 AM	28920
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.48	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
Toluene	ND	0.59	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
Ethylbenzene	ND	0.56	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
Methyl tert-butyl ether (MTBE)	3500	11	50		µg/L	50	11/17/2016 7:01:36 PM	R38783
1,2,4-Trimethylbenzene	ND	0.55	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
1,2-Dichloroethane (EDC)	1.6	0.58	5.0	J	µg/L	5	11/17/2016 7:30:24 PM	R38783
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
Naphthalene	ND	0.46	10		µg/L	5	11/17/2016 7:30:24 PM	R38783
1-Methylnaphthalene	ND	1.0	20		µg/L	5	11/17/2016 7:30:24 PM	R38783
2-Methylnaphthalene	ND	0.79	20		µg/L	5	11/17/2016 7:30:24 PM	R38783
Acetone	ND	25	50		µg/L	5	11/17/2016 7:30:24 PM	R38783
Bromobenzene	ND	0.49	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
Bromodichloromethane	ND	0.70	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
Bromoform	ND	0.51	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
Bromomethane	ND	3.9	15		µg/L	5	11/17/2016 7:30:24 PM	R38783
2-Butanone	ND	3.7	50		µg/L	5	11/17/2016 7:30:24 PM	R38783
Carbon disulfide	ND	3.0	50		µg/L	5	11/17/2016 7:30:24 PM	R38783
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
Chlorobenzene	ND	0.57	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
Chloroethane	ND	0.96	10		µg/L	5	11/17/2016 7:30:24 PM	R38783
Chloroform	ND	0.44	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
Chloromethane	ND	1.1	15		µg/L	5	11/17/2016 7:30:24 PM	R38783
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	11/17/2016 7:30:24 PM	R38783
Dibromochloromethane	ND	0.43	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
Dibromomethane	ND	0.60	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-30
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 8:20:00 AM
Lab ID: 1611792-002
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
2,2-Dichloropropane	ND	0.83	10		µg/L	5	11/17/2016 7:30:24 PM	R38783
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
2-Hexanone	ND	4.2	50		µg/L	5	11/17/2016 7:30:24 PM	R38783
Isopropylbenzene	ND	0.52	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	11/17/2016 7:30:24 PM	R38783
Methylene Chloride	ND	0.94	15		µg/L	5	11/17/2016 7:30:24 PM	R38783
n-Butylbenzene	ND	0.80	15		µg/L	5	11/17/2016 7:30:24 PM	R38783
n-Propylbenzene	ND	0.66	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
sec-Butylbenzene	ND	0.62	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
Styrene	ND	0.55	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	11/17/2016 7:30:24 PM	R38783
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	11/17/2016 7:30:24 PM	R38783
Vinyl chloride	ND	0.98	5.0		µg/L	5	11/17/2016 7:30:24 PM	R38783
Xylenes, Total	ND	1.8	7.5		µg/L	5	11/17/2016 7:30:24 PM	R38783
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	5	11/17/2016 7:30:24 PM	R38783
Surr: 4-Bromofluorobenzene	96.3	0	70-130		%Rec	5	11/17/2016 7:30:24 PM	R38783
Surr: Dibromofluoromethane	106	0	70-130		%Rec	5	11/17/2016 7:30:24 PM	R38783
Surr: Toluene-d8	102	0	70-130		%Rec	5	11/17/2016 7:30:24 PM	R38783

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 11:35:00 AM
Lab ID: 1611792-003
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	1.0	0.69	1.0		mg/L	1	11/17/2016 11:25:04 PM	28698
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/17/2016 11:25:04 PM	28698
Surr: DNOP	110	0	77.1-144		%Rec	1	11/17/2016 11:25:04 PM	28698
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.56	0.051	0.10		mg/L	2	11/16/2016 4:33:26 PM	G38747
Surr: BFB	111	0	66.4-120		%Rec	2	11/16/2016 4:33:26 PM	G38747
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	1.7	0.050	0.10		mg/L	1	11/24/2016 12:32:55 AM	R38979
Chloride	310	1.0	10		mg/L	20	11/16/2016 3:24:36 PM	R38771
Bromide	0.97	0.044	0.10		mg/L	1	11/16/2016 3:12:11 PM	R38771
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/16/2016 3:12:11 PM	R38771
Sulfate	11	0.14	0.50		mg/L	1	11/16/2016 3:12:11 PM	R38771
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	11/16/2016 4:51:30 PM	R38771
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	1.5	0.0066	0.010		mg/L	5	12/12/2016 1:13:52 PM	A39337
Cadmium	ND	0.00075	0.0020		mg/L	1	12/9/2016 1:28:46 PM	A39280
Calcium	77	0.50	1.0		mg/L	1	12/9/2016 1:28:46 PM	A39280
Chromium	ND	0.0018	0.0060		mg/L	1	12/9/2016 1:28:46 PM	A39280
Copper	ND	0.0040	0.0060		mg/L	1	12/9/2016 1:28:46 PM	A39280
Iron	1.5	0.10	0.10	*	mg/L	5	12/12/2016 1:13:52 PM	A39337
Magnesium	16	0.50	1.0		mg/L	1	12/9/2016 1:28:46 PM	A39280
Manganese	1.1	0.0016	0.010	*	mg/L	5	12/12/2016 1:13:52 PM	A39337
Potassium	0.62	0.50	1.0	J	mg/L	1	12/9/2016 1:28:46 PM	A39280
Silver	ND	0.0028	0.0050		mg/L	1	12/9/2016 1:28:46 PM	A39280
Sodium	380	2.5	5.0		mg/L	5	12/12/2016 1:13:52 PM	A39337
Zinc	ND	0.0028	0.010		mg/L	1	12/9/2016 1:28:46 PM	A39280
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	1.9	0.0079	0.020		mg/L	10	12/9/2016 11:36:49 AM	29034
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 3:24:32 PM	29034
Chromium	0.0069	0.0027	0.0060		mg/L	1	12/8/2016 3:24:32 PM	29034
Copper	0.0071	0.0030	0.0060		mg/L	1	12/8/2016 3:24:32 PM	29034
Iron	5.5	0.20	0.20	*	mg/L	10	12/9/2016 11:36:49 AM	29034
Manganese	1.3	0.0027	0.020	*	mg/L	10	12/9/2016 11:36:49 AM	29034
Silver	0.0017	0.0015	0.0050	J	mg/L	1	12/8/2016 3:24:32 PM	29034
Zinc	0.030	0.0027	0.010		mg/L	1	12/8/2016 3:24:32 PM	29034
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0085	0.00069	0.0050		mg/L	5	11/30/2016 5:27:52 PM	R39071

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 11:35:00 AM
Lab ID: 1611792-003
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00029	0.00017	0.00050	J	mg/L	1	11/28/2016 5:23:09 PM	C39007
Selenium	0.0078	0.0042	0.020	J	mg/L	20	11/30/2016 5:33:00 PM	R39071
Uranium	0.00051	0.000051	0.00050		mg/L	1	11/28/2016 5:23:09 PM	C39007
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0084	0.0011	0.0050		mg/L	5	12/8/2016 3:23:59 PM	29034
Lead	0.0070	0.000081	0.00050		mg/L	1	12/7/2016 4:26:23 PM	29034
Selenium	0.0050	0.0037	0.020	J	mg/L	20	12/8/2016 3:34:16 PM	29034
Uranium	0.00085	0.00017	0.00050		mg/L	1	12/7/2016 4:26:23 PM	29034
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	0.00011	0.000053	0.00020	J	mg/L	1	12/1/2016 9:58:38 AM	28920
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	4.1	0.096	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
Toluene	0.13	0.12	1.0	J	µg/L	1	11/17/2016 7:59:10 PM	R38783
Ethylbenzene	1.4	0.11	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
Methyl tert-butyl ether (MTBE)	160	0.21	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
1,2,4-Trimethylbenzene	0.18	0.11	1.0	J	µg/L	1	11/17/2016 7:59:10 PM	R38783
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
Naphthalene	1.4	0.093	2.0	J	µg/L	1	11/17/2016 7:59:10 PM	R38783
1-Methylnaphthalene	1.7	0.20	4.0	J	µg/L	1	11/17/2016 7:59:10 PM	R38783
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
Acetone	7.1	4.9	10	J	µg/L	1	11/17/2016 7:59:10 PM	R38783
Bromobenzene	ND	0.098	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
Bromodichloromethane	0.23	0.14	1.0	J	µg/L	1	11/17/2016 7:59:10 PM	R38783
Bromoform	ND	0.10	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
Bromomethane	ND	0.78	3.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
2-Butanone	ND	0.74	10		µg/L	1	11/17/2016 7:59:10 PM	R38783
Carbon disulfide	ND	0.60	10		µg/L	1	11/17/2016 7:59:10 PM	R38783
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
Chloroethane	ND	0.19	2.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
Chloroform	ND	0.089	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
Chloromethane	ND	0.21	3.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
4-Chlorotoluene	0.50	0.13	1.0	J	µg/L	1	11/17/2016 7:59:10 PM	R38783
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 11:35:00 AM
Lab ID: 1611792-003
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
Dibromomethane	ND	0.12	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
2-Hexanone	ND	0.84	10		µg/L	1	11/17/2016 7:59:10 PM	R38783
Isopropylbenzene	0.33	0.10	1.0	J	µg/L	1	11/17/2016 7:59:10 PM	R38783
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/17/2016 7:59:10 PM	R38783
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
n-Butylbenzene	0.48	0.16	3.0	J	µg/L	1	11/17/2016 7:59:10 PM	R38783
n-Propylbenzene	0.60	0.13	1.0	J	µg/L	1	11/17/2016 7:59:10 PM	R38783
sec-Butylbenzene	0.55	0.12	1.0	J	µg/L	1	11/17/2016 7:59:10 PM	R38783
Styrene	ND	0.11	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
tert-Butylbenzene	0.31	0.12	1.0	J	µg/L	1	11/17/2016 7:59:10 PM	R38783
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/17/2016 7:59:10 PM	R38783
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/17/2016 7:59:10 PM	R38783
Surr: 1,2-Dichloroethane-d4	87.9	0	70-130		%Rec	1	11/17/2016 7:59:10 PM	R38783

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 11:35:00 AM
Lab ID: 1611792-003
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 4-Bromofluorobenzene	96.8	0	70-130		%Rec	1	11/17/2016 7:59:10 PM	R38783
Surr: Dibromofluoromethane	89.9	0	70-130		%Rec	1	11/17/2016 7:59:10 PM	R38783
Surr: Toluene-d8	101	0	70-130		%Rec	1	11/17/2016 7:59:10 PM	R38783

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 11:45:00 AM
Lab ID: 1611792-004
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/17/2016 11:46:47 PM	28698
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/17/2016 11:46:47 PM	28698
Surr: DNOP	107	0	77.1-144		%Rec	1	11/17/2016 11:46:47 PM	28698
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.13	0.025	0.050		mg/L	1	11/16/2016 4:57:44 PM	G38747
Surr: BFB	107	0	66.4-120		%Rec	1	11/16/2016 4:57:44 PM	G38747
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.93	0.050	0.10		mg/L	1	11/24/2016 12:45:20 AM	R38979
Chloride	190	1.0	10		mg/L	20	11/16/2016 3:49:26 PM	R38771
Bromide	0.60	0.044	0.10		mg/L	1	11/16/2016 3:37:01 PM	R38771
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/16/2016 3:37:01 PM	R38771
Sulfate	35	0.14	0.50		mg/L	1	11/16/2016 3:37:01 PM	R38771
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	11/16/2016 5:41:07 PM	R38771
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	1.2	0.0066	0.010		mg/L	5	12/12/2016 1:15:49 PM	A39337
Cadmium	ND	0.00075	0.0020		mg/L	1	12/9/2016 1:30:48 PM	A39280
Calcium	81	0.50	1.0		mg/L	1	12/9/2016 1:30:48 PM	A39280
Chromium	ND	0.0018	0.0060		mg/L	1	12/9/2016 1:30:48 PM	A39280
Copper	ND	0.0040	0.0060		mg/L	1	12/9/2016 1:30:48 PM	A39280
Iron	0.12	0.020	0.020		mg/L	1	12/9/2016 1:30:48 PM	A39280
Magnesium	14	0.50	1.0		mg/L	1	12/9/2016 1:30:48 PM	A39280
Manganese	1.3	0.0016	0.010	*	mg/L	5	12/12/2016 1:15:49 PM	A39337
Potassium	0.91	0.50	1.0	J	mg/L	1	12/9/2016 1:30:48 PM	A39280
Silver	ND	0.0028	0.0050		mg/L	1	12/9/2016 1:30:48 PM	A39280
Sodium	290	2.5	5.0		mg/L	5	12/12/2016 1:15:49 PM	A39337
Zinc	0.0031	0.0028	0.010	J	mg/L	1	12/9/2016 1:30:48 PM	A39280
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	1.2	0.0040	0.010		mg/L	5	12/9/2016 11:38:46 AM	29034
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 3:26:14 PM	29034
Chromium	ND	0.0027	0.0060		mg/L	1	12/8/2016 3:26:14 PM	29034
Copper	ND	0.0030	0.0060		mg/L	1	12/8/2016 3:26:14 PM	29034
Iron	1.8	0.10	0.10	*	mg/L	5	12/9/2016 11:38:46 AM	29034
Manganese	1.3	0.0014	0.010	*	mg/L	5	12/9/2016 11:38:46 AM	29034
Silver	0.0030	0.0015	0.0050	J	mg/L	1	12/8/2016 3:26:14 PM	29034
Zinc	0.0042	0.0027	0.010	J	mg/L	1	12/8/2016 3:26:14 PM	29034
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0036	0.00069	0.0050	J	mg/L	5	11/30/2016 5:38:08 PM	R39071

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 11:45:00 AM
Lab ID: 1611792-004
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00017	0.00050		mg/L	1	11/28/2016 5:26:12 PM	C39007
Selenium	0.0071	0.0042	0.020	J	mg/L	20	11/30/2016 5:43:16 PM	R39071
Uranium	0.0099	0.000051	0.00050		mg/L	1	11/28/2016 5:26:12 PM	C39007
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0068	0.0011	0.0050		mg/L	5	12/8/2016 3:39:24 PM	29034
Lead	0.00025	0.000081	0.00050	J	mg/L	1	12/7/2016 4:46:59 PM	29034
Selenium	0.0049	0.0037	0.020	J	mg/L	20	12/8/2016 4:05:09 PM	29034
Uranium	0.0089	0.00087	0.0025		mg/L	5	12/8/2016 3:39:24 PM	29034
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	0.000084	0.000053	0.00020	J	mg/L	1	12/1/2016 9:54:37 AM	28920
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	4.4	0.096	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
Toluene	ND	0.12	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
Ethylbenzene	1.3	0.11	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
Methyl tert-butyl ether (MTBE)	37	0.21	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
Naphthalene	1.5	0.093	2.0	J	µg/L	1	11/17/2016 8:27:56 PM	R38783
1-Methylnaphthalene	1.1	0.20	4.0	J	µg/L	1	11/17/2016 8:27:56 PM	R38783
2-Methylnaphthalene	0.62	0.16	4.0	J	µg/L	1	11/17/2016 8:27:56 PM	R38783
Acetone	5.4	4.9	10	J	µg/L	1	11/17/2016 8:27:56 PM	R38783
Bromobenzene	ND	0.098	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
Bromoform	ND	0.10	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
Bromomethane	ND	0.78	3.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
2-Butanone	ND	0.74	10		µg/L	1	11/17/2016 8:27:56 PM	R38783
Carbon disulfide	ND	0.60	10		µg/L	1	11/17/2016 8:27:56 PM	R38783
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
Chloroethane	ND	0.19	2.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
Chloroform	ND	0.089	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
Chloromethane	ND	0.21	3.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
cis-1,2-DCE	0.18	0.12	1.0	J	µg/L	1	11/17/2016 8:27:56 PM	R38783
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 11:45:00 AM
Lab ID: 1611792-004 **Matrix:** AQUEOUS **Received Date:** 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
Dibromomethane	ND	0.12	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
2-Hexanone	ND	0.84	10		µg/L	1	11/17/2016 8:27:56 PM	R38783
Isopropylbenzene	0.11	0.10	1.0	J	µg/L	1	11/17/2016 8:27:56 PM	R38783
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/17/2016 8:27:56 PM	R38783
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
n-Propylbenzene	0.25	0.13	1.0	J	µg/L	1	11/17/2016 8:27:56 PM	R38783
sec-Butylbenzene	0.36	0.12	1.0	J	µg/L	1	11/17/2016 8:27:56 PM	R38783
Styrene	ND	0.11	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
tert-Butylbenzene	0.26	0.12	1.0	J	µg/L	1	11/17/2016 8:27:56 PM	R38783
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/17/2016 8:27:56 PM	R38783
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/17/2016 8:27:56 PM	R38783
Surr: 1,2-Dichloroethane-d4	92.3	0	70-130		%Rec	1	11/17/2016 8:27:56 PM	R38783

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 11:45:00 AM
Lab ID: 1611792-004
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 4-Bromofluorobenzene	94.9	0	70-130		%Rec	1	11/17/2016 8:27:56 PM	R38783
Surr: Dibromofluoromethane	96.0	0	70-130		%Rec	1	11/17/2016 8:27:56 PM	R38783
Surr: Toluene-d8	105	0	70-130		%Rec	1	11/17/2016 8:27:56 PM	R38783

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 1:40:00 PM
Lab ID: 1611792-005
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	0.89	0.69	1.0	J	mg/L	1	11/18/2016 12:08:42 AM	28698
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/18/2016 12:08:42 AM	28698
Surr: DNOP	108	0	77.1-144		%Rec	1	11/18/2016 12:08:42 AM	28698
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.051	0.10	D	mg/L	2	11/16/2016 5:22:01 PM	G38747
Surr: BFB	92.0	0	66.4-120	D	%Rec	2	11/16/2016 5:22:01 PM	G38747
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	1.7	0.25	0.50		mg/L	5	11/24/2016 12:57:44 AM	R38979
Chloride	320	2.5	25		mg/L	50	11/24/2016 1:10:08 AM	R38979
Nitrogen, Nitrite (As N)	ND	0.26	0.50		mg/L	5	11/16/2016 1:32:53 PM	R38771
Bromide	4.1	0.22	0.50		mg/L	5	11/16/2016 1:32:53 PM	R38771
Nitrogen, Nitrate (As N)	3.5	0.20	0.50		mg/L	5	11/16/2016 1:32:53 PM	R38771
Phosphorus, Orthophosphate (As P)	0.90	0.38	2.5	J	mg/L	5	11/16/2016 1:32:53 PM	R38771
Sulfate	230	0.71	2.5		mg/L	5	11/16/2016 1:32:53 PM	R38771
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.16	0.0013	0.0020		mg/L	1	12/9/2016 1:32:45 PM	A39280
Cadmium	ND	0.00075	0.0020		mg/L	1	12/9/2016 1:32:45 PM	A39280
Calcium	45	0.50	1.0		mg/L	1	12/9/2016 1:32:45 PM	A39280
Chromium	0.0031	0.0018	0.0060	J	mg/L	1	12/9/2016 1:32:45 PM	A39280
Copper	0.0080	0.0040	0.0060		mg/L	1	12/9/2016 1:32:45 PM	A39280
Iron	1.4	0.10	0.10	*	mg/L	5	12/12/2016 1:17:44 PM	A39337
Magnesium	4.5	0.50	1.0		mg/L	1	12/9/2016 1:32:45 PM	A39280
Manganese	0.36	0.00032	0.0020	*	mg/L	1	12/9/2016 1:32:45 PM	A39280
Potassium	3.1	0.50	1.0		mg/L	1	12/9/2016 1:32:45 PM	A39280
Silver	ND	0.0028	0.0050		mg/L	1	12/9/2016 1:32:45 PM	A39280
Sodium	570	5.0	10		mg/L	10	12/12/2016 1:19:40 PM	A39337
Zinc	0.047	0.0028	0.010		mg/L	1	12/9/2016 1:32:45 PM	A39280
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	3.0	0.0040	0.010	*	mg/L	5	12/9/2016 2:52:04 PM	29034
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 3:28:08 PM	29034
Chromium	0.078	0.0027	0.0060		mg/L	1	12/8/2016 3:28:08 PM	29034
Copper	0.11	0.0030	0.0060		mg/L	1	12/8/2016 3:28:08 PM	29034
Iron	29	1.0	1.0	*	mg/L	50	12/9/2016 2:59:47 PM	29034
Manganese	2.9	0.0014	0.010	*	mg/L	5	12/9/2016 2:52:04 PM	29034
Silver	ND	0.0015	0.0050		mg/L	1	12/8/2016 3:28:08 PM	29034
Zinc	0.56	0.0027	0.010		mg/L	1	12/8/2016 3:28:08 PM	29034
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 1:40:00 PM
Lab ID: 1611792-005
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0070	0.0028	0.020	J	mg/L	20	11/30/2016 6:03:53 PM	R39071
Lead	0.0063	0.00017	0.00050		mg/L	1	11/28/2016 5:29:15 PM	C39007
Selenium	0.016	0.0011	0.0050		mg/L	5	11/30/2016 5:48:25 PM	R39071
Uranium	0.034	0.00026	0.0025	*	mg/L	5	11/30/2016 5:48:25 PM	R39071
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.011	0.0011	0.0050	*	mg/L	5	12/8/2016 4:10:17 PM	29034
Lead	0.079	0.00041	0.0025	*	mg/L	5	12/8/2016 4:10:17 PM	29034
Selenium	0.012	0.0037	0.020	J	mg/L	20	12/8/2016 4:15:26 PM	29034
Uranium	0.041	0.00087	0.0025	*	mg/L	5	12/8/2016 4:10:17 PM	29034
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	0.00077	0.000053	0.00020		mg/L	1	12/1/2016 9:56:37 AM	28920
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Toluene	0.21	0.12	1.0	J	µg/L	1	11/17/2016 10:23:02 PM	R38783
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Methyl tert-butyl ether (MTBE)	15	0.21	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
1,2,4-Trimethylbenzene	0.25	0.11	1.0	J	µg/L	1	11/17/2016 10:23:02 PM	R38783
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
1,2-Dichloroethane (EDC)	0.34	0.12	1.0	J	µg/L	1	11/17/2016 10:23:02 PM	R38783
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Naphthalene	ND	0.093	2.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Acetone	ND	4.9	10		µg/L	1	11/17/2016 10:23:02 PM	R38783
Bromobenzene	ND	0.098	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Bromoform	ND	0.10	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Bromomethane	ND	0.78	3.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
2-Butanone	ND	0.74	10		µg/L	1	11/17/2016 10:23:02 PM	R38783
Carbon disulfide	ND	0.60	10		µg/L	1	11/17/2016 10:23:02 PM	R38783
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Chloroethane	ND	0.19	2.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Chloroform	ND	0.089	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Chloromethane	ND	0.21	3.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 1:40:00 PM
Lab ID: 1611792-005 **Matrix:** AQUEOUS **Received Date:** 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Dibromomethane	ND	0.12	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
2-Hexanone	ND	0.84	10		µg/L	1	11/17/2016 10:23:02 PM	R38783
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/17/2016 10:23:02 PM	R38783
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Styrene	ND	0.11	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/17/2016 10:23:02 PM	R38783
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/17/2016 10:23:02 PM	R38783

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 1:40:00 PM
Lab ID: 1611792-005
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	1	11/17/2016 10:23:02 PM	R38783
Surr: 4-Bromofluorobenzene	99.2	0	70-130		%Rec	1	11/17/2016 10:23:02 PM	R38783
Surr: Dibromofluoromethane	107	0	70-130		%Rec	1	11/17/2016 10:23:02 PM	R38783
Surr: Toluene-d8	101	0	70-130		%Rec	1	11/17/2016 10:23:02 PM	R38783

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 12:31:00 PM
Lab ID: 1611792-006 **Matrix:** AQUEOUS **Received Date:** 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/18/2016 12:52:24 AM	28698
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/18/2016 12:52:24 AM	28698
Surr: DNOP	109	0	77.1-144		%Rec	1	11/18/2016 12:52:24 AM	28698
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/16/2016 5:46:21 PM	G38747
Surr: BFB	92.2	0	66.4-120		%Rec	1	11/16/2016 5:46:21 PM	G38747
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.56	0.050	0.10		mg/L	1	11/24/2016 1:22:33 AM	R38979
Chloride	110	1.0	10		mg/L	20	11/16/2016 4:14:15 PM	R38771
Bromide	0.36	0.044	0.10		mg/L	1	11/16/2016 4:01:51 PM	R38771
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/16/2016 4:01:51 PM	R38771
Sulfate	99	2.8	10		mg/L	20	11/16/2016 4:14:15 PM	R38771
Nitrate+Nitrite as N	12	0.46	1.0	*	mg/L	5	11/16/2016 5:53:31 PM	R38771
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.10	0.0013	0.0020		mg/L	1	12/9/2016 1:41:01 PM	A39280
Cadmium	ND	0.00075	0.0020		mg/L	1	12/9/2016 1:41:01 PM	A39280
Calcium	75	0.50	1.0		mg/L	1	12/9/2016 1:41:01 PM	A39280
Chromium	ND	0.0018	0.0060		mg/L	1	12/9/2016 1:41:01 PM	A39280
Copper	ND	0.0040	0.0060		mg/L	1	12/9/2016 1:41:01 PM	A39280
Iron	ND	0.020	0.020		mg/L	1	12/9/2016 1:41:01 PM	A39280
Magnesium	15	0.50	1.0		mg/L	1	12/9/2016 1:41:01 PM	A39280
Manganese	0.093	0.00032	0.0020	*	mg/L	1	12/9/2016 1:41:01 PM	A39280
Potassium	0.85	0.50	1.0	J	mg/L	1	12/9/2016 1:41:01 PM	A39280
Silver	ND	0.0028	0.0050		mg/L	1	12/9/2016 1:41:01 PM	A39280
Sodium	420	2.5	5.0		mg/L	5	12/12/2016 1:27:27 PM	A39337
Zinc	0.0039	0.0028	0.010	J	mg/L	1	12/9/2016 1:41:01 PM	A39280
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.13	0.00079	0.0020		mg/L	1	12/8/2016 3:29:57 PM	29034
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 3:29:57 PM	29034
Chromium	ND	0.0027	0.0060		mg/L	1	12/8/2016 3:29:57 PM	29034
Copper	ND	0.0030	0.0060		mg/L	1	12/8/2016 3:29:57 PM	29034
Iron	0.55	0.020	0.020	*	mg/L	1	12/8/2016 3:29:57 PM	29034
Manganese	0.25	0.00027	0.0020	*	mg/L	1	12/8/2016 3:29:57 PM	29034
Silver	ND	0.0015	0.0050		mg/L	1	12/8/2016 3:29:57 PM	29034
Zinc	0.0053	0.0027	0.010	J	mg/L	1	12/8/2016 3:29:57 PM	29034
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0040	0.00069	0.0050	J	mg/L	5	11/30/2016 6:09:01 PM	R39071

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 12:31:00 PM
Lab ID: 1611792-006
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00017	0.00050		mg/L	1	11/28/2016 5:38:28 PM	C39007
Selenium	0.012	0.0042	0.020	J	mg/L	20	11/30/2016 6:14:09 PM	R39071
Uranium	0.036	0.00026	0.0025	*	mg/L	5	11/30/2016 6:09:01 PM	R39071
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0036	0.0011	0.0050	J	mg/L	5	12/8/2016 4:20:34 PM	29034
Lead	0.00078	0.000081	0.00050		mg/L	1	12/7/2016 5:07:33 PM	29034
Selenium	0.0072	0.0037	0.020	J	mg/L	20	12/8/2016 4:25:42 PM	29034
Uranium	0.034	0.00087	0.0025	*	mg/L	5	12/8/2016 4:20:34 PM	29034
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	0.000085	0.000053	0.00020	J	mg/L	1	12/1/2016 10:00:38 AM	28920
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Toluene	ND	0.12	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Methyl tert-butyl ether (MTBE)	0.87	0.21	1.0	J	µg/L	1	11/17/2016 10:51:45 PM	R38783
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Naphthalene	ND	0.093	2.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Acetone	ND	4.9	10		µg/L	1	11/17/2016 10:51:45 PM	R38783
Bromobenzene	ND	0.098	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Bromoform	ND	0.10	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Bromomethane	ND	0.78	3.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
2-Butanone	ND	0.74	10		µg/L	1	11/17/2016 10:51:45 PM	R38783
Carbon disulfide	ND	0.60	10		µg/L	1	11/17/2016 10:51:45 PM	R38783
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Chloroethane	ND	0.19	2.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Chloroform	ND	0.089	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Chloromethane	ND	0.21	3.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 12:31:00 PM
Lab ID: 1611792-006
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Dibromomethane	ND	0.12	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
2-Hexanone	ND	0.84	10		µg/L	1	11/17/2016 10:51:45 PM	R38783
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/17/2016 10:51:45 PM	R38783
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Styrene	ND	0.11	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/17/2016 10:51:45 PM	R38783
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/17/2016 10:51:45 PM	R38783
Surr: 1,2-Dichloroethane-d4	99.7	0	70-130		%Rec	1	11/17/2016 10:51:45 PM	R38783

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 12:31:00 PM
Lab ID: 1611792-006
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	11/17/2016 10:51:45 PM	R38783
Surr: Dibromofluoromethane	105	0	70-130		%Rec	1	11/17/2016 10:51:45 PM	R38783
Surr: Toluene-d8	100	0	70-130		%Rec	1	11/17/2016 10:51:45 PM	R38783

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OAPIS-1
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 1:05:00 PM
Lab ID: 1611792-007
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	8.6	0.69	1.0		mg/L	1	11/18/2016 1:14:01 AM	28698
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/18/2016 1:14:01 AM	28698
Surr: DNOP	110	0	77.1-144		%Rec	1	11/18/2016 1:14:01 AM	28698
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	1.4	0.13	0.25		mg/L	5	11/16/2016 6:10:45 PM	G38747
Surr: BFB	118	0	66.4-120		%Rec	5	11/16/2016 6:10:45 PM	G38747
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	1.3	0.25	0.50		mg/L	5	11/24/2016 1:34:58 AM	R38979
Chloride	1600	10	100		mg/L	200	11/30/2016 9:45:26 PM	R39076
Bromide	11	0.22	0.50		mg/L	5	11/16/2016 1:08:04 PM	R38771
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5	H	mg/L	5	11/16/2016 1:08:04 PM	R38771
Sulfate	13	0.71	2.5		mg/L	5	11/16/2016 1:08:04 PM	R38771
Nitrate+Nitrite as N	ND	0.92	2.0		mg/L	10	12/1/2016 8:57:20 PM	A39105
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.87	0.0013	0.0020		mg/L	1	12/9/2016 1:42:55 PM	A39280
Cadmium	ND	0.00075	0.0020		mg/L	1	12/9/2016 1:42:55 PM	A39280
Calcium	170	2.5	5.0		mg/L	5	12/12/2016 1:29:22 PM	A39337
Chromium	ND	0.0018	0.0060		mg/L	1	12/9/2016 1:42:55 PM	A39280
Copper	ND	0.0040	0.0060		mg/L	1	12/9/2016 1:42:55 PM	A39280
Iron	7.4	1.0	1.0	*	mg/L	50	12/12/2016 1:31:02 PM	A39337
Magnesium	33	0.50	1.0		mg/L	1	12/9/2016 1:42:55 PM	A39280
Manganese	1.8	0.0016	0.010	*	mg/L	5	12/12/2016 1:29:22 PM	A39337
Potassium	4.2	0.50	1.0		mg/L	1	12/9/2016 1:42:55 PM	A39280
Silver	ND	0.0028	0.0050		mg/L	1	12/9/2016 1:42:55 PM	A39280
Sodium	1400	25	50		mg/L	50	12/12/2016 1:31:02 PM	A39337
Zinc	0.0071	0.0028	0.010	J	mg/L	1	12/9/2016 1:42:55 PM	A39280
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.96	0.00079	0.0020		mg/L	1	12/8/2016 3:31:53 PM	29034
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 3:31:53 PM	29034
Chromium	0.0028	0.0027	0.0060	J	mg/L	1	12/8/2016 3:31:53 PM	29034
Copper	0.0035	0.0030	0.0060	J	mg/L	1	12/8/2016 3:31:53 PM	29034
Iron	8.3	0.20	0.20	*	mg/L	10	12/9/2016 11:42:28 AM	29034
Manganese	1.8	0.0014	0.010	*	mg/L	5	12/9/2016 11:40:41 AM	29034
Silver	0.011	0.0015	0.0050		mg/L	1	12/8/2016 3:31:53 PM	29034
Zinc	0.028	0.0027	0.010		mg/L	1	12/8/2016 3:31:53 PM	29034
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.017	0.00069	0.0050	*	mg/L	5	11/30/2016 6:19:18 PM	R39071

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OAPIS-1
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 1:05:00 PM
Lab ID: 1611792-007
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00081	0.00017	0.00050		mg/L	1	11/28/2016 5:41:31 PM	C39007
Selenium	0.033	0.0011	0.0050		mg/L	5	11/30/2016 6:19:18 PM	R39071
Uranium	0.014	0.000051	0.00050		mg/L	1	11/28/2016 5:41:31 PM	C39007
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.014	0.011	0.050	J*	mg/L	50	12/8/2016 4:35:59 PM	29034
Lead	0.011	0.00041	0.0025		mg/L	5	12/8/2016 4:30:51 PM	29034
Selenium	0.020	0.0094	0.050	J	mg/L	50	12/8/2016 4:35:59 PM	29034
Uranium	0.012	0.00087	0.0025		mg/L	5	12/8/2016 4:30:51 PM	29034
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	0.000089	0.000053	0.00020	J	mg/L	1	12/1/2016 10:02:41 AM	28920
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Acenaphthylene	ND	2.4	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Aniline	ND	2.4	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Anthracene	ND	2.5	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Azobenzene	ND	2.7	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Benzoic acid	8.5	2.6	20	J	µg/L	1	11/18/2016 3:28:50 PM	28753
Benzyl alcohol	ND	3.0	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Bis(2-ethylhexyl)phthalate	ND	2.6	10		µg/L	1	11/18/2016 3:28:50 PM	28753
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Carbazole	ND	2.3	10		µg/L	1	11/18/2016 3:28:50 PM	28753
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/18/2016 3:28:50 PM	28753
4-Chloroaniline	ND	2.7	10		µg/L	1	11/18/2016 3:28:50 PM	28753
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/18/2016 3:28:50 PM	28753
2-Chlorophenol	ND	2.2	10		µg/L	1	11/18/2016 3:28:50 PM	28753
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Chrysene	ND	2.8	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Di-n-octyl phthalate	7.1	2.0	10	J	µg/L	1	11/18/2016 3:28:50 PM	28753

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Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Dibenzofuran	ND	2.5	10		µg/L	1	11/18/2016 3:28:50 PM	28753
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/18/2016 3:28:50 PM	28753
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/18/2016 3:28:50 PM	28753
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/18/2016 3:28:50 PM	28753
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Diethyl phthalate	ND	2.7	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/18/2016 3:28:50 PM	28753
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/18/2016 3:28:50 PM	28753
2,4-Dimethylphenol	19	3.0	10		µg/L	1	11/18/2016 3:28:50 PM	28753
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/18/2016 3:28:50 PM	28753
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/18/2016 3:28:50 PM	28753
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/18/2016 3:28:50 PM	28753
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Fluoranthene	ND	2.6	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Fluorene	ND	2.7	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Hexachloroethane	ND	2.4	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Isophorone	ND	2.6	10		µg/L	1	11/18/2016 3:28:50 PM	28753
1-Methylnaphthalene	19	2.9	10		µg/L	1	11/18/2016 3:28:50 PM	28753
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/18/2016 3:28:50 PM	28753
2-Methylphenol	ND	2.5	10		µg/L	1	11/18/2016 3:28:50 PM	28753
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/18/2016 3:28:50 PM	28753
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/18/2016 3:28:50 PM	28753
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/18/2016 3:28:50 PM	28753
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Naphthalene	3.3	2.6	10	J	µg/L	1	11/18/2016 3:28:50 PM	28753
2-Nitroaniline	ND	2.8	10		µg/L	1	11/18/2016 3:28:50 PM	28753
3-Nitroaniline	ND	2.9	10		µg/L	1	11/18/2016 3:28:50 PM	28753
4-Nitroaniline	ND	2.6	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Nitrobenzene	ND	2.8	10		µg/L	1	11/18/2016 3:28:50 PM	28753
2-Nitrophenol	ND	2.4	10		µg/L	1	11/18/2016 3:28:50 PM	28753
4-Nitrophenol	ND	2.6	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Pentachlorophenol	ND	2.3	20		µg/L	1	11/18/2016 3:28:50 PM	28753
Phenanthrene	ND	2.6	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Phenol	ND	2.0	10		µg/L	1	11/18/2016 3:28:50 PM	28753

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Collection Date: 11/14/2016 1:05:00 PM
Lab ID: 1611792-007
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	3.1	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Pyridine	ND	2.2	10		µg/L	1	11/18/2016 3:28:50 PM	28753
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/18/2016 3:28:50 PM	28753
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/18/2016 3:28:50 PM	28753
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/18/2016 3:28:50 PM	28753
Surr: 2-Fluorophenol	23.4	0	15-98.1		%Rec	1	11/18/2016 3:28:50 PM	28753
Surr: Phenol-d5	18.8	0	15-80.7		%Rec	1	11/18/2016 3:28:50 PM	28753
Surr: 2,4,6-Tribromophenol	39.0	0	15-112		%Rec	1	11/18/2016 3:28:50 PM	28753
Surr: Nitrobenzene-d5	45.0	0	27.2-90.7		%Rec	1	11/18/2016 3:28:50 PM	28753
Surr: 2-Fluorobiphenyl	37.8	0	23.3-85.6		%Rec	1	11/18/2016 3:28:50 PM	28753
Surr: 4-Terphenyl-d14	25.3	0	27.6-107	S	%Rec	1	11/18/2016 3:28:50 PM	28753
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	150	0.96	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
Toluene	1.6	1.2	10	J	µg/L	10	11/17/2016 11:20:31 PM	R38783
Ethylbenzene	18	1.1	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
Methyl tert-butyl ether (MTBE)	260	2.1	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
1,2,4-Trimethylbenzene	7.7	1.1	10	J	µg/L	10	11/17/2016 11:20:31 PM	R38783
1,3,5-Trimethylbenzene	ND	1.2	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
1,2-Dichloroethane (EDC)	3.2	1.2	10	J	µg/L	10	11/17/2016 11:20:31 PM	R38783
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
Naphthalene	ND	0.93	20		µg/L	10	11/17/2016 11:20:31 PM	R38783
1-Methylnaphthalene	45	2.0	40		µg/L	10	11/17/2016 11:20:31 PM	R38783
2-Methylnaphthalene	ND	1.6	40		µg/L	10	11/17/2016 11:20:31 PM	R38783
Acetone	ND	49	100		µg/L	10	11/17/2016 11:20:31 PM	R38783
Bromobenzene	ND	0.98	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
Bromodichloromethane	ND	1.4	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
Bromoform	ND	1.0	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
Bromomethane	ND	7.8	30		µg/L	10	11/17/2016 11:20:31 PM	R38783
2-Butanone	ND	7.4	100		µg/L	10	11/17/2016 11:20:31 PM	R38783
Carbon disulfide	ND	6.0	100		µg/L	10	11/17/2016 11:20:31 PM	R38783
Carbon Tetrachloride	ND	1.1	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
Chlorobenzene	ND	1.1	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
Chloroethane	ND	1.9	20		µg/L	10	11/17/2016 11:20:31 PM	R38783
Chloroform	4.4	0.89	10	J	µg/L	10	11/17/2016 11:20:31 PM	R38783
Chloromethane	ND	2.1	30		µg/L	10	11/17/2016 11:20:31 PM	R38783
2-Chlorotoluene	ND	4.0	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
4-Chlorotoluene	ND	1.3	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
cis-1,2-DCE	ND	1.2	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	11/17/2016 11:20:31 PM	R38783

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OAPIS-1
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 1:05:00 PM
Lab ID: 1611792-007
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	11/17/2016 11:20:31 PM	R38783
Dibromochloromethane	ND	0.87	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
Dibromomethane	ND	1.2	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
1,1-Dichloroethane	ND	1.1	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
1,1-Dichloroethene	ND	1.1	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
1,2-Dichloropropane	ND	1.1	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
1,3-Dichloropropane	ND	1.6	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
2,2-Dichloropropane	ND	1.7	20		µg/L	10	11/17/2016 11:20:31 PM	R38783
1,1-Dichloropropene	ND	1.3	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
Hexachlorobutadiene	ND	2.0	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
2-Hexanone	ND	8.4	100		µg/L	10	11/17/2016 11:20:31 PM	R38783
Isopropylbenzene	2.7	1.0	10	J	µg/L	10	11/17/2016 11:20:31 PM	R38783
4-Isopropyltoluene	ND	1.4	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	11/17/2016 11:20:31 PM	R38783
Methylene Chloride	ND	1.9	30		µg/L	10	11/17/2016 11:20:31 PM	R38783
n-Butylbenzene	3.1	1.6	30	J	µg/L	10	11/17/2016 11:20:31 PM	R38783
n-Propylbenzene	4.4	1.3	10	J	µg/L	10	11/17/2016 11:20:31 PM	R38783
sec-Butylbenzene	2.5	1.2	10	J	µg/L	10	11/17/2016 11:20:31 PM	R38783
Styrene	ND	1.1	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
tert-Butylbenzene	ND	1.2	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	11/17/2016 11:20:31 PM	R38783
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
trans-1,2-DCE	ND	4.0	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
1,1,1-Trichloroethane	ND	0.91	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
Trichlorofluoromethane	ND	2.0	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	11/17/2016 11:20:31 PM	R38783
Vinyl chloride	ND	2.0	10		µg/L	10	11/17/2016 11:20:31 PM	R38783
Xylenes, Total	ND	3.7	15		µg/L	10	11/17/2016 11:20:31 PM	R38783
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	10	11/17/2016 11:20:31 PM	R38783

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Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 4-Bromofluorobenzene	99.2	0	70-130		%Rec	10	11/17/2016 11:20:31 PM	R38783
Surr: Dibromofluoromethane	106	0	70-130		%Rec	10	11/17/2016 11:20:31 PM	R38783
Surr: Toluene-d8	102	0	70-130		%Rec	10	11/17/2016 11:20:31 PM	R38783
EPA 335.4: TOTAL CYANIDE SUBBED							Analyst: **SUB**	
Cyanide	0.0837	0.0100	0.0100		mg/L	1	11/23/2016	R39585

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: STP1-NW
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 3:00:00 PM
Lab ID: 1611792-008
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/18/2016 1:57:24 AM	28698
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/18/2016 1:57:24 AM	28698
Surr: DNOP	106	0	77.1-144		%Rec	1	11/18/2016 1:57:24 AM	28698
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/16/2016 6:35:13 PM	G38747
Surr: BFB	91.2	0	66.4-120		%Rec	1	11/16/2016 6:35:13 PM	G38747
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	ND	0.25	0.50		mg/L	5	11/30/2016 9:57:50 PM	R39076
Chloride	2000	10	100		mg/L	200	11/30/2016 10:10:14 PM	R39076
Nitrogen, Nitrite (As N)	ND	1.0	2.0		mg/L	20	11/16/2016 2:10:08 PM	R38771
Bromide	12	0.87	2.0		mg/L	20	11/16/2016 2:10:08 PM	R38771
Nitrogen, Nitrate (As N)	24	0.81	2.0	*	mg/L	20	11/16/2016 2:10:08 PM	R38771
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50		mg/L	1	11/16/2016 1:57:43 PM	R38771
Sulfate	140	2.8	10		mg/L	20	11/16/2016 2:10:08 PM	R38771
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.13	0.0013	0.0020		mg/L	1	12/9/2016 1:44:45 PM	A39280
Cadmium	ND	0.00075	0.0020		mg/L	1	12/9/2016 1:44:45 PM	A39280
Calcium	82	0.50	1.0		mg/L	1	12/9/2016 1:44:45 PM	A39280
Chromium	ND	0.0018	0.0060		mg/L	1	12/9/2016 1:44:45 PM	A39280
Copper	ND	0.0040	0.0060		mg/L	1	12/9/2016 1:44:45 PM	A39280
Iron	0.20	0.020	0.020		mg/L	1	12/9/2016 1:44:45 PM	A39280
Magnesium	13	0.50	1.0		mg/L	1	12/9/2016 1:44:45 PM	A39280
Manganese	0.0086	0.00032	0.0020		mg/L	1	12/9/2016 1:44:45 PM	A39280
Potassium	5.8	0.50	1.0		mg/L	1	12/9/2016 1:44:45 PM	A39280
Silver	ND	0.0028	0.0050		mg/L	1	12/9/2016 1:44:45 PM	A39280
Sodium	1400	25	50		mg/L	50	12/12/2016 1:32:56 PM	A39337
Zinc	0.010	0.0028	0.010		mg/L	1	12/9/2016 1:44:45 PM	A39280
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.24	0.00079	0.0020		mg/L	1	12/8/2016 3:33:41 PM	29034
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 3:33:41 PM	29034
Chromium	0.0096	0.0027	0.0060		mg/L	1	12/8/2016 3:33:41 PM	29034
Copper	0.0049	0.0030	0.0060	J	mg/L	1	12/8/2016 3:33:41 PM	29034
Iron	11	0.40	0.40	*	mg/L	20	12/9/2016 11:44:28 AM	29034
Manganese	0.31	0.00027	0.0020	*	mg/L	1	12/8/2016 3:33:41 PM	29034
Silver	0.0079	0.0015	0.0050		mg/L	1	12/8/2016 3:33:41 PM	29034
Zinc	0.29	0.0027	0.010		mg/L	1	12/8/2016 3:33:41 PM	29034
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: STP1-NW
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 3:00:00 PM
Lab ID: 1611792-008
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0089	0.0069	0.050	J	mg/L	50	11/30/2016 6:34:42 PM	R39071
Lead	0.00039	0.00017	0.00050	J	mg/L	1	11/28/2016 5:44:35 PM	C39007
Selenium	0.033	0.0011	0.0050		mg/L	5	11/30/2016 6:29:34 PM	R39071
Uranium	0.026	0.00026	0.0025		mg/L	5	11/30/2016 6:29:34 PM	R39071
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.011	0.0011	0.0050	*	mg/L	5	12/8/2016 4:41:07 PM	29034
Lead	0.016	0.00041	0.0025	*	mg/L	5	12/8/2016 4:41:07 PM	29034
Selenium	0.021	0.00094	0.0050		mg/L	5	12/8/2016 4:41:07 PM	29034
Uranium	0.027	0.00087	0.0025		mg/L	5	12/8/2016 4:41:07 PM	29034
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	0.00014	0.000053	0.00020	J	mg/L	1	12/1/2016 10:04:43 AM	28920
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Toluene	ND	0.12	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Methyl tert-butyl ether (MTBE)	0.36	0.21	1.0	J	µg/L	1	11/17/2016 11:49:11 PM	R38783
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Naphthalene	ND	0.093	2.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Acetone	ND	4.9	10		µg/L	1	11/17/2016 11:49:11 PM	R38783
Bromobenzene	ND	0.098	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Bromoform	ND	0.10	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Bromomethane	ND	0.78	3.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
2-Butanone	ND	0.74	10		µg/L	1	11/17/2016 11:49:11 PM	R38783
Carbon disulfide	ND	0.60	10		µg/L	1	11/17/2016 11:49:11 PM	R38783
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Chloroethane	ND	0.19	2.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Chloroform	ND	0.089	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Chloromethane	ND	0.21	3.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: STP1-NW
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 3:00:00 PM
Lab ID: 1611792-008
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Dibromomethane	ND	0.12	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
2-Hexanone	ND	0.84	10		µg/L	1	11/17/2016 11:49:11 PM	R38783
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/17/2016 11:49:11 PM	R38783
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Styrene	ND	0.11	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/17/2016 11:49:11 PM	R38783
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/17/2016 11:49:11 PM	R38783

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: STP1-NW
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 3:00:00 PM
Lab ID: 1611792-008
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 1,2-Dichloroethane-d4	95.3	0	70-130		%Rec	1	11/17/2016 11:49:11 PM	R38783
Surr: 4-Bromofluorobenzene	94.1	0	70-130		%Rec	1	11/17/2016 11:49:11 PM	R38783
Surr: Dibromofluoromethane	103	0	70-130		%Rec	1	11/17/2016 11:49:11 PM	R38783
Surr: Toluene-d8	98.3	0	70-130		%Rec	1	11/17/2016 11:49:11 PM	R38783

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP-01
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 11:45:00 AM
Lab ID: 1611792-009
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	8.5	0.69	1.0		mg/L	1	11/18/2016 2:19:09 AM	28698
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/18/2016 2:19:09 AM	28698
Surr: DNOP	109	0	77.1-144		%Rec	1	11/18/2016 2:19:09 AM	28698
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	1.4	0.13	0.25		mg/L	5	11/16/2016 6:59:43 PM	G38747
Surr: BFB	120	0	66.4-120	S	%Rec	5	11/16/2016 6:59:43 PM	G38747
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	1.6	0.25	0.50		mg/L	5	11/30/2016 10:22:39 PM	R39076
Chloride	1600	10	100		mg/L	200	11/30/2016 10:35:03 PM	R39076
Bromide	11	0.22	0.50		mg/L	5	11/16/2016 4:26:40 PM	R38771
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5	H	mg/L	5	11/16/2016 4:26:40 PM	R38771
Sulfate	12	0.71	2.5		mg/L	5	11/16/2016 4:26:40 PM	R38771
Nitrate+Nitrite as N	ND	0.92	2.0		mg/L	10	12/5/2016 10:31:55 PM	R39175
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.87	0.0013	0.0020		mg/L	1	12/9/2016 1:46:41 PM	A39280
Cadmium	ND	0.00075	0.0020		mg/L	1	12/9/2016 1:46:41 PM	A39280
Calcium	170	2.5	5.0		mg/L	5	12/12/2016 1:34:44 PM	A39337
Chromium	ND	0.0018	0.0060		mg/L	1	12/9/2016 1:46:41 PM	A39280
Copper	ND	0.0040	0.0060		mg/L	1	12/9/2016 1:46:41 PM	A39280
Iron	7.1	0.20	0.20	*	mg/L	10	12/12/2016 1:36:24 PM	A39337
Magnesium	33	0.50	1.0		mg/L	1	12/9/2016 1:46:41 PM	A39280
Manganese	1.8	0.0016	0.010	*	mg/L	5	12/12/2016 1:34:44 PM	A39337
Potassium	4.2	0.50	1.0		mg/L	1	12/9/2016 1:46:41 PM	A39280
Silver	ND	0.0028	0.0050		mg/L	1	12/9/2016 1:46:41 PM	A39280
Sodium	1300	25	50		mg/L	50	12/12/2016 1:38:24 PM	A39337
Zinc	0.011	0.0028	0.010		mg/L	1	12/9/2016 1:46:41 PM	A39280
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.93	0.00079	0.0020		mg/L	1	12/8/2016 3:35:29 PM	29034
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 3:35:29 PM	29034
Chromium	0.0036	0.0027	0.0060	J	mg/L	1	12/8/2016 3:35:29 PM	29034
Copper	ND	0.0030	0.0060		mg/L	1	12/8/2016 3:35:29 PM	29034
Iron	7.5	0.20	0.20	*	mg/L	10	12/9/2016 11:54:41 AM	29034
Manganese	1.7	0.0014	0.010	*	mg/L	5	12/9/2016 11:46:24 AM	29034
Silver	0.0091	0.0015	0.0050		mg/L	1	12/8/2016 3:35:29 PM	29034
Zinc	0.032	0.0027	0.010		mg/L	1	12/8/2016 3:35:29 PM	29034
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.017	0.00069	0.0050	*	mg/L	5	11/30/2016 6:39:51 PM	R39071

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP-01
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 11:45:00 AM
Lab ID: 1611792-009
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00079	0.00017	0.00050		mg/L	1	11/28/2016 5:47:38 PM	C39007
Selenium	0.033	0.0011	0.0050		mg/L	5	11/30/2016 6:39:51 PM	R39071
Uranium	0.013	0.000051	0.00050		mg/L	1	11/28/2016 5:47:38 PM	C39007
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.021	0.011	0.050	J*	mg/L	50	12/8/2016 5:06:53 PM	29034
Lead	0.0087	0.00041	0.0025		mg/L	5	12/8/2016 5:01:44 PM	29034
Selenium	0.019	0.0094	0.050	J	mg/L	50	12/8/2016 5:06:53 PM	29034
Uranium	0.013	0.00087	0.0025		mg/L	5	12/8/2016 5:01:44 PM	29034
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	0.000088	0.000053	0.00020	J	mg/L	1	12/1/2016 10:10:56 AM	28920
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Acenaphthylene	ND	2.4	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Aniline	ND	2.4	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Anthracene	ND	2.5	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Azobenzene	ND	2.7	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Benzoic acid	ND	2.6	20		µg/L	1	11/18/2016 3:56:22 PM	28753
Benzyl alcohol	ND	3.0	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Bis(2-ethylhexyl)phthalate	ND	2.6	10		µg/L	1	11/18/2016 3:56:22 PM	28753
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Carbazole	ND	2.3	10		µg/L	1	11/18/2016 3:56:22 PM	28753
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/18/2016 3:56:22 PM	28753
4-Chloroaniline	ND	2.7	10		µg/L	1	11/18/2016 3:56:22 PM	28753
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/18/2016 3:56:22 PM	28753
2-Chlorophenol	ND	2.2	10		µg/L	1	11/18/2016 3:56:22 PM	28753
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Chrysene	ND	2.8	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Di-n-octyl phthalate	7.2	2.0	10	J	µg/L	1	11/18/2016 3:56:22 PM	28753

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP-01
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 11:45:00 AM
Lab ID: 1611792-009
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Dibenzofuran	ND	2.5	10		µg/L	1	11/18/2016 3:56:22 PM	28753
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/18/2016 3:56:22 PM	28753
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/18/2016 3:56:22 PM	28753
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/18/2016 3:56:22 PM	28753
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Diethyl phthalate	ND	2.7	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/18/2016 3:56:22 PM	28753
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/18/2016 3:56:22 PM	28753
2,4-Dimethylphenol	33	3.0	10		µg/L	1	11/18/2016 3:56:22 PM	28753
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/18/2016 3:56:22 PM	28753
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/18/2016 3:56:22 PM	28753
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/18/2016 3:56:22 PM	28753
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Fluoranthene	ND	2.6	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Fluorene	3.0	2.7	10	J	µg/L	1	11/18/2016 3:56:22 PM	28753
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Hexachloroethane	ND	2.4	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Isophorone	ND	2.6	10		µg/L	1	11/18/2016 3:56:22 PM	28753
1-Methylnaphthalene	36	2.9	10		µg/L	1	11/18/2016 3:56:22 PM	28753
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/18/2016 3:56:22 PM	28753
2-Methylphenol	ND	2.5	10		µg/L	1	11/18/2016 3:56:22 PM	28753
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/18/2016 3:56:22 PM	28753
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/18/2016 3:56:22 PM	28753
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/18/2016 3:56:22 PM	28753
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Naphthalene	3.9	2.6	10	J	µg/L	1	11/18/2016 3:56:22 PM	28753
2-Nitroaniline	ND	2.8	10		µg/L	1	11/18/2016 3:56:22 PM	28753
3-Nitroaniline	ND	2.9	10		µg/L	1	11/18/2016 3:56:22 PM	28753
4-Nitroaniline	ND	2.6	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Nitrobenzene	ND	2.8	10		µg/L	1	11/18/2016 3:56:22 PM	28753
2-Nitrophenol	ND	2.4	10		µg/L	1	11/18/2016 3:56:22 PM	28753
4-Nitrophenol	ND	2.6	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Pentachlorophenol	ND	2.3	20		µg/L	1	11/18/2016 3:56:22 PM	28753
Phenanthrene	ND	2.6	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Phenol	ND	2.0	10		µg/L	1	11/18/2016 3:56:22 PM	28753

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP-01
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 11:45:00 AM
Lab ID: 1611792-009
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	3.1	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Pyridine	ND	2.2	10		µg/L	1	11/18/2016 3:56:22 PM	28753
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/18/2016 3:56:22 PM	28753
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/18/2016 3:56:22 PM	28753
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/18/2016 3:56:22 PM	28753
Surr: 2-Fluorophenol	41.9	0	15-98.1		%Rec	1	11/18/2016 3:56:22 PM	28753
Surr: Phenol-d5	35.4	0	15-80.7		%Rec	1	11/18/2016 3:56:22 PM	28753
Surr: 2,4,6-Tribromophenol	48.1	0	15-112		%Rec	1	11/18/2016 3:56:22 PM	28753
Surr: Nitrobenzene-d5	65.8	0	27.2-90.7		%Rec	1	11/18/2016 3:56:22 PM	28753
Surr: 2-Fluorobiphenyl	51.9	0	23.3-85.6		%Rec	1	11/18/2016 3:56:22 PM	28753
Surr: 4-Terphenyl-d14	33.6	0	27.6-107		%Rec	1	11/18/2016 3:56:22 PM	28753
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	150	0.96	10		µg/L	10	11/18/2016 11:07:42 AM	B38828
Toluene	1.4	0.12	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
Ethylbenzene	17	0.11	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
Methyl tert-butyl ether (MTBE)	250	2.1	10		µg/L	10	11/18/2016 11:07:42 AM	B38828
1,2,4-Trimethylbenzene	5.6	0.11	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
1,2-Dichloroethane (EDC)	0.61	0.12	1.0	J	µg/L	1	11/18/2016 12:17:52 AM	R38783
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
Naphthalene	2.2	0.093	2.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
1-Methylnaphthalene	51	0.20	4.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
Acetone	18	4.9	10		µg/L	1	11/18/2016 12:17:52 AM	R38783
Bromobenzene	ND	0.098	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
Bromoform	ND	0.10	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
Bromomethane	ND	0.78	3.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
2-Butanone	5.8	0.74	10	J	µg/L	1	11/18/2016 12:17:52 AM	R38783
Carbon disulfide	ND	0.60	10		µg/L	1	11/18/2016 12:17:52 AM	R38783
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
Chloroethane	ND	0.19	2.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
Chloroform	ND	0.089	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
Chloromethane	ND	0.21	3.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP-01
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 11:45:00 AM
Lab ID: 1611792-009
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
Dibromomethane	ND	0.12	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
1,1-Dichloroethane	1.3	0.11	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
2-Hexanone	ND	0.84	10		µg/L	1	11/18/2016 12:17:52 AM	R38783
Isopropylbenzene	2.4	0.10	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
4-Isopropyltoluene	0.71	0.14	1.0	J	µg/L	1	11/18/2016 12:17:52 AM	R38783
4-Methyl-2-pentanone	0.80	0.43	10	J	µg/L	1	11/18/2016 12:17:52 AM	R38783
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
n-Butylbenzene	0.70	0.16	3.0	J	µg/L	1	11/18/2016 12:17:52 AM	R38783
n-Propylbenzene	2.6	0.13	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
sec-Butylbenzene	0.60	0.12	1.0	J	µg/L	1	11/18/2016 12:17:52 AM	R38783
Styrene	ND	0.11	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
tert-Butylbenzene	0.13	0.12	1.0	J	µg/L	1	11/18/2016 12:17:52 AM	R38783
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/18/2016 12:17:52 AM	R38783
Xylenes, Total	7.6	0.37	1.5		µg/L	1	11/18/2016 12:17:52 AM	R38783
Surr: 1,2-Dichloroethane-d4	106	0	70-130		%Rec	1	11/18/2016 12:17:52 AM	R38783

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP-01
Project: 2016 4th QTR Ground Water
Collection Date: 11/14/2016 11:45:00 AM
Lab ID: 1611792-009
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: 4-Bromofluorobenzene	83.4	0	70-130		%Rec	1	11/18/2016 12:17:52 AM	R38783
Surr: Dibromofluoromethane	104	0	70-130		%Rec	1	11/18/2016 12:17:52 AM	R38783
Surr: Toluene-d8	103	0	70-130		%Rec	1	11/18/2016 12:17:52 AM	R38783

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2016 4th QTR Ground Water
Collection Date:
Lab ID: 1611792-010
Matrix: TRIP BLANK
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Toluene	ND	0.12	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Naphthalene	ND	0.093	2.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Acetone	5.5	4.9	10	J	µg/L	1	11/17/2016 6:32:43 PM	R38783
Bromobenzene	ND	0.098	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Bromoform	ND	0.10	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Bromomethane	ND	0.78	3.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
2-Butanone	ND	0.74	10		µg/L	1	11/17/2016 6:32:43 PM	R38783
Carbon disulfide	ND	0.60	10		µg/L	1	11/17/2016 6:32:43 PM	R38783
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Chloroethane	ND	0.19	2.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Chloroform	ND	0.089	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Chloromethane	ND	0.21	3.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Dibromomethane	ND	0.12	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/17/2016 6:32:43 PM	R38783

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2016 4th QTR Ground Water
Collection Date:
Lab ID: 1611792-010
Matrix: TRIP BLANK
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
2-Hexanone	ND	0.84	10		µg/L	1	11/17/2016 6:32:43 PM	R38783
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/17/2016 6:32:43 PM	R38783
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Styrene	ND	0.11	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/17/2016 6:32:43 PM	R38783
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/17/2016 6:32:43 PM	R38783
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	1	11/17/2016 6:32:43 PM	R38783
Surr: 4-Bromofluorobenzene	98.4	0	70-130		%Rec	1	11/17/2016 6:32:43 PM	R38783
Surr: Dibromofluoromethane	109	0	70-130		%Rec	1	11/17/2016 6:32:43 PM	R38783
Surr: Toluene-d8	98.5	0	70-130		%Rec	1	11/17/2016 6:32:43 PM	R38783

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	161117029
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	1611792
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	161117029-001	**Sampling Date**	11/14/2016	**Date/Time Received**	11/17/2016 10:45 AM
Client Sample ID	1611792-007G / OAPIS-1	**Sampling Time**	1:05 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0837	mg/L	0.01	11/23/2016	MER	EPA 335.4	

Authorized Signature

Todd Taruscio, Lab Manager

MCL	EPA's Maximum Contaminant Level
ND	Not Detected
PQL	Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 161117029
Project Name: 1611792

Analytical Results Report

Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.504	mg/L	0.5	100.8	90-110	11/23/2016	11/23/2016

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
161115051-001	Cyanide	ND	0.506	mg/L	0.5	101.2	90-110	11/23/2016	11/23/2016

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	0.507	mg/L	0.5	101.4	0.2	0-20	11/23/2016	11/23/2016

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/L	0.01	11/23/2016	11/23/2016

AR	Acceptable Range
ND	Not Detected
PQL	Practical Quantitation Limit
RPD	Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013;NV:ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A39280**	RunNo: **39280**
Prep Date:	Analysis Date: **12/9/2016**	SeqNo: **1229491** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A39280**	RunNo: **39280**
Prep Date:	Analysis Date: **12/9/2016**	SeqNo: **1229492** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.0020	0.5000	0	94.6	85	115			
Cadmium	0.49	0.0020	0.5000	0	97.7	85	115			
Calcium	47	1.0	50.00	0	94.0	85	115			
Chromium	0.47	0.0060	0.5000	0	93.2	85	115			
Copper	0.50	0.0060	0.5000	0	100	85	115			
Iron	0.47	0.020	0.5000	0	93.1	85	115			
Magnesium	51	1.0	50.00	0	102	85	115			
Manganese	0.47	0.0020	0.5000	0	93.8	85	115			
Potassium	51	1.0	50.00	0	101	85	115			
Silver	0.097	0.0050	0.1000	0	97.1	85	115			
Zinc	0.44	0.010	0.5000	0	89.0	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A39280**	RunNo: **39280**
Prep Date:	Analysis Date: **12/9/2016**	SeqNo: **1229493** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0024	0.0020	0.002000	0	118	50	150			
Cadmium	0.0018	0.0020	0.002000	0	88.0	50	150			J
Calcium	0.50	1.0	0.5000	0	101	50	150			J
Chromium	0.0062	0.0060	0.006000	0	104	50	150			
Copper	0.0067	0.0060	0.006000	0	111	50	150			
Iron	0.025	0.020	0.02000	0	126	50	150			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A39280**	RunNo: **39280**
Prep Date:	Analysis Date: **12/9/2016**	SeqNo: **1229493** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	0.54	1.0	0.5000	0	107	50	150			J
Manganese	0.0020	0.0020	0.002000	0	98.0	50	150			J
Potassium	0.66	1.0	0.5000	0	132	50	150			J
Silver	0.0042	0.0050	0.005000	0	85.0	50	150			J
Zinc	0.0050	0.010	0.005000	0	99.8	50	150			J

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A39337**	RunNo: **39337**
Prep Date:	Analysis Date: **12/12/2016**	SeqNo: **1231202** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Iron	ND	0.020								
Manganese	ND	0.0020								
Sodium	ND	1.0								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A39337**	RunNo: **39337**
Prep Date:	Analysis Date: **12/12/2016**	SeqNo: **1231203** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.6	85	115			
Calcium	52	1.0	50.00	0	104	85	115			
Iron	0.48	0.020	0.5000	0	97.0	85	115			
Manganese	0.47	0.0020	0.5000	0	94.4	85	115			
Sodium	51	1.0	50.00	0	101	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A39337**	RunNo: **39337**
Prep Date:	Analysis Date: **12/12/2016**	SeqNo: **1231204** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	102	50	150			
Calcium	0.60	1.0	0.5000	0	119	50	150			J
Iron	0.019	0.020	0.02000	0	96.6	50	150			J
Manganese	0.0021	0.0020	0.002000	0	105	50	150			
Sodium	0.54	1.0	0.5000	0	109	50	150			J

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID **MB-29034**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **29034**	RunNo: **39247**
Prep Date: **12/6/2016**	Analysis Date: **12/8/2016**	SeqNo: **1228707** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	0.00038	0.0020								J
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-29034**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **29034**	RunNo: **39247**
Prep Date: **12/6/2016**	Analysis Date: **12/8/2016**	SeqNo: **1228708** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.53	0.0020	0.5000	0	105	85	115			
Chromium	0.52	0.0060	0.5000	0	103	85	115			
Copper	0.51	0.0060	0.5000	0	101	85	115			
Iron	0.49	0.020	0.5000	0	98.6	85	115			
Manganese	0.50	0.0020	0.5000	0	99.5	85	115			
Silver	0.097	0.0050	0.1000	0	97.4	85	115			
Zinc	0.52	0.010	0.5000	0	104	85	115			

Sample ID **LLLCS-29034**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **29034**	RunNo: **39247**
Prep Date: **12/6/2016**	Analysis Date: **12/8/2016**	SeqNo: **1228709** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0016	0.0020	0.002000	0	80.5	50	150			J
Cadmium	0.0018	0.0020	0.002000	0	88.5	50	150			J
Chromium	0.0061	0.0060	0.006000	0	102	50	150			
Copper	0.0050	0.0060	0.006000	0	83.2	50	150			J
Iron	0.021	0.020	0.02000	0	106	50	150			
Manganese	0.0021	0.0020	0.002000	0	104	50	150			
Silver	0.0042	0.0050	0.005000	0	84.8	50	150			J
Zinc	0.0059	0.010	0.005000	0	119	50	150			J

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID	**1611792-002EMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-30**	Batch ID:	**29034**		RunNo:	**39247**				
Prep Date:	**12/6/2016**	Analysis Date:	**12/8/2016**		SeqNo:	**1228718**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.62	0.0020	0.5000	0.1061	103	70	130			
Cadmium	0.53	0.0020	0.5000	0	106	70	130			
Chromium	0.52	0.0060	0.5000	0	104	70	130			
Copper	0.55	0.0060	0.5000	0	109	70	130			
Iron	0.58	0.020	0.5000	0.09464	97.4	70	130			
Manganese	0.54	0.0020	0.5000	0.03820	100	70	130			
Zinc	0.52	0.010	0.5000	0	104	70	130			

Sample ID	**1611792-002EMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-30**	Batch ID:	**29034**		RunNo:	**39247**				
Prep Date:	**12/6/2016**	Analysis Date:	**12/8/2016**		SeqNo:	**1228719**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.61	0.0020	0.5000	0.1061	101	70	130	1.65	20	
Cadmium	0.52	0.0020	0.5000	0	105	70	130	0.737	20	
Chromium	0.52	0.0060	0.5000	0	103	70	130	0.734	20	
Copper	0.54	0.0060	0.5000	0	107	70	130	1.97	20	
Iron	0.58	0.020	0.5000	0.09464	96.7	70	130	0.611	20	
Manganese	0.53	0.0020	0.5000	0.03820	98.0	70	130	1.96	20	
Zinc	0.51	0.010	0.5000	0	103	70	130	0.815	20	

Sample ID	**1611792-002EMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-30**	Batch ID:	**29034**		RunNo:	**39280**				
Prep Date:	**12/6/2016**	Analysis Date:	**12/9/2016**		SeqNo:	**1229344**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.014	0.0050	0.1000	0	14.3	70	130			S

Sample ID	**1611792-002EMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-30**	Batch ID:	**29034**		RunNo:	**39280**				
Prep Date:	**12/6/2016**	Analysis Date:	**12/9/2016**		SeqNo:	**1229345**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.015	0.0050	0.1000	0	14.8	70	130	3.50	20	S

Sample ID	**1611792-002EPS**	SampType:	**PS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-30**	Batch ID:	**29034**		RunNo:	**39280**				
Prep Date:		Analysis Date:	**12/9/2016**		SeqNo:	**1229346**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID	**1611792-002EPS**	SampType:	**PS**		TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**OW-30**	Batch ID:	**29034**		RunNo:	**39280**					
Prep Date:		Analysis Date:	**12/9/2016**		SeqNo:	**1229346**	Units:	**mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver		0.094	0.0050	0.1000	0	93.6	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C39007**	RunNo: **39007**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1220004** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	96.9	85	115			
Uranium	0.012	0.00050	0.01250	0	96.7	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C39007**	RunNo: **39007**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1220005** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00049	0.00050	0.0005000	0	97.6	50	150			J
Uranium	0.00050	0.00050	0.0005000	0	100	50	150			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C39007**	RunNo: **39007**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1220009** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Uranium	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R39071**	RunNo: **39071**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1222065** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	102	85	115			
Selenium	0.027	0.0010	0.02500	0	107	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R39071**	RunNo: **39071**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1222066** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.027	0.0010	0.02500	0	108	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID	**LLLCS**	SampType:	**LCSLL**	TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**R39071**	RunNo:	**39071**					
Prep Date:		Analysis Date:	**11/30/2016**	SeqNo:	**1222067**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00099	0.0010	0.001000	0	98.5	50	150			J
Selenium	0.00097	0.0010	0.001000	0	97.3	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	98.4	50	150			J

Sample ID	**LLLCS**	SampType:	**LCSLL**	TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**R39071**	RunNo:	**39071**					
Prep Date:		Analysis Date:	**11/30/2016**	SeqNo:	**1222068**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	101	50	150			
Selenium	0.0011	0.0010	0.001000	0	105	50	150			
Uranium	0.00048	0.00050	0.0005000	0	96.9	50	150			J

Sample ID	**MB**	SampType:	**MBLK**	TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**R39071**	RunNo:	**39071**					
Prep Date:		Analysis Date:	**11/30/2016**	SeqNo:	**1222069**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MB**	SampType:	**MBLK**	TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**R39071**	RunNo:	**39071**					
Prep Date:		Analysis Date:	**11/30/2016**	SeqNo:	**1222070**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID	**MB-29034**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**29034**	RunNo:	**39218**					
Prep Date:	**12/6/2016**	Analysis Date:	**12/7/2016**	SeqNo:	**1227106**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-29034**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**29034**	RunNo:	**39218**					
Prep Date:	**12/6/2016**	Analysis Date:	**12/7/2016**	SeqNo:	**1227108**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	102	85	115			
Lead	0.013	0.00050	0.01250	0	103	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID	**MSLLLCS-29034**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**29034**	RunNo:	**39218**					
Prep Date:	**12/6/2016**	Analysis Date:	**12/7/2016**	SeqNo:	**1227110**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00091	0.0010	0.001000	0	91.0	50	150			J
Lead	0.00049	0.00050	0.0005000	0	97.1	50	150			J
Selenium	0.00091	0.0010	0.001000	0	91.1	50	150			J
Uranium	0.00037	0.00050	0.0005000	0	74.0	50	150			J

Sample ID	**1611792-003EMSLL**	SampType:	**MSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**NAPIS-2**	Batch ID:	**29034**	RunNo:	**39218**					
Prep Date:		Analysis Date:	**12/7/2016**	SeqNo:	**1227789**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.021	0.00050	0.01250	0.007035	115	70	130			
Uranium	0.017	0.00050	0.01250	0.0008523	129	70	130			

Sample ID	**1611792-004EMSDL**	SampType:	**MSDLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**KA-3**	Batch ID:	**29034**	RunNo:	**39218**					
Prep Date:		Analysis Date:	**12/7/2016**	SeqNo:	**1227791**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.014	0.00050	0.01250	0.0002496	112	70	130	0.639	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID	**1611792-004EMSLL**	SampType: **MSLL**		TestCode: **200.8 ICPMS Metals:Total**					
Client ID:	**KA-3**	Batch ID: **29034**		RunNo: **39218**					
Prep Date:		Analysis Date: **12/7/2016**		SeqNo: **1227792**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.014	0.00050	0.01250	0.0002496	113	70	130			

Sample ID	**1611792-003EMSLL**	SampType: **MSLL**		TestCode: **200.8 ICPMS Metals:Total**					
Client ID:	**NAPIS-2**	Batch ID: **29034**		RunNo: **39273**					
Prep Date:	**12/6/2016**	Analysis Date: **12/8/2016**		SeqNo: **1229128**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.035	0.0050	0.02500	0.008427	106	70	130			

Sample ID	**1611792-004EMSDL**	SampType: **MSDLL**		TestCode: **200.8 ICPMS Metals:Total**					
Client ID:	**KA-3**	Batch ID: **29034**		RunNo: **39273**					
Prep Date:	**12/6/2016**	Analysis Date: **12/8/2016**		SeqNo: **1229131**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.033	0.0050	0.02500	0.006755	104	70	130	0.799	20	
Uranium	0.021	0.0025	0.01250	0.008921	100	70	130	3.01	20	

Sample ID	**1611792-004EMSLL**	SampType: **MSLL**		TestCode: **200.8 ICPMS Metals:Total**					
Client ID:	**KA-3**	Batch ID: **29034**		RunNo: **39273**					
Prep Date:	**12/6/2016**	Analysis Date: **12/8/2016**		SeqNo: **1229132**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.033	0.0050	0.02500	0.006755	105	70	130			
Uranium	0.022	0.0025	0.01250	0.008921	105	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID	**MB-28920**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**28920**	RunNo:	**39070**					
Prep Date:	**11/30/2016**	Analysis Date:	**12/1/2016**	SeqNo:	**1222324**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000084	0.00020								J

Sample ID	**LCS-28920**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**28920**	RunNo:	**39070**					
Prep Date:	**11/30/2016**	Analysis Date:	**12/1/2016**	SeqNo:	**1222325**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0047	0.00020	0.005000	0	94.2	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R38771**	RunNo: **38771**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211326** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	0.11	0.50								J
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	0.14	0.50								J
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R38771**	RunNo: **38771**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211327** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	95.6	90	110			
Nitrogen, Nitrite (As N)	0.96	0.10	1.000	0	95.7	90	110			
Bromide	2.5	0.10	2.500	0	98.1	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	102	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.4	90	110			
Sulfate	9.8	0.50	10.00	0	98.4	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	100	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R38979**	RunNo: **38979**
Prep Date:	Analysis Date: **11/23/2016**	SeqNo: **1218934** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	0.11	0.50								J

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R38979**	RunNo: **38979**
Prep Date:	Analysis Date: **11/23/2016**	SeqNo: **1218937** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	103	90	110			
Chloride	4.6	0.50	5.000	0	93.0	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R39076**	RunNo: **39076**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1222379** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R39076**	RunNo: **39076**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1222380** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	103	90	110			
Chloride	4.7	0.50	5.000	0	93.0	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A39105**	RunNo: **39105**
Prep Date:	Analysis Date: **12/1/2016**	SeqNo: **1223302** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A39105**	RunNo: **39105**
Prep Date:	Analysis Date: **12/1/2016**	SeqNo: **1223303** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.6	0.20	3.500	0	104	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R39175**	RunNo: **39175**
Prep Date:	Analysis Date: **12/5/2016**	SeqNo: **1225515** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R39175**	RunNo: **39175**
Prep Date:	Analysis Date: **12/5/2016**	SeqNo: **1225516** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.3	0.20	3.500	0	95.4	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID	**MB-28776**	SampType:	**MBLK**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**PBW**	Batch ID:	**28776**	RunNo:	**38889**					
Prep Date:	**11/21/2016**	Analysis Date:	**11/21/2016**	SeqNo:	**1215712**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID	**LCS-28776**	SampType:	**LCS**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**LCSW**	Batch ID:	**28776**	RunNo:	**38889**					
Prep Date:	**11/21/2016**	Analysis Date:	**11/21/2016**	SeqNo:	**1215714**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.11	0.010	0.1000	0	108	70	130			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID **MB-28698**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **28698**	RunNo: **38769**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1212026** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		104	77.1	144			

Sample ID **LCS-28698**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **28698**	RunNo: **38769**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1212027** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	115	63.2	155			
Surr: DNOP	0.52		0.5000		104	77.1	144			

Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G38747**	RunNo: **38747**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1210964** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		93.4	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G38747**	RunNo: **38747**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1210965** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	91.4	80	120			
Surr: BFB	19		20.00		97.0	66.4	120			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R38783**	RunNo: **38783**
Prep Date:	Analysis Date: **11/17/2016**	SeqNo: **1212338** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	70	130			
Toluene	19	1.0	20.00	0	96.5	70	130			
Chlorobenzene	18	1.0	20.00	0	92.0	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	102	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	91.3	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.0	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38783**	RunNo: **38783**
Prep Date:	Analysis Date: **11/17/2016**	SeqNo: **1212339** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	0.32	4.0								J
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38783**	RunNo: **38783**
Prep Date:	Analysis Date: **11/17/2016**	SeqNo: **1212339** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	0.49	1.0								J
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	0.31	3.0								J
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38783**	RunNo: **38783**
Prep Date:	Analysis Date: **11/17/2016**	SeqNo: **1212339** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **B38828**	RunNo: **38828**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1213801** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.6	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.2	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **B38828**	RunNo: **38828**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1213802** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.7	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID **lcs-28753**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **28753**	RunNo: **38838**
Prep Date: **11/18/2016**	Analysis Date: **11/18/2016**	SeqNo: **1213707** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	61	10	100.0	0	61.4	42.9	100			
4-Chloro-3-methylphenol	120	10	200.0	0	62.3	36.2	110			
2-Chlorophenol	110	10	200.0	0	53.9	33.4	97.8			
1,4-Dichlorobenzene	40	10	100.0	0	39.9	32.8	79.3			
2,4-Dinitrotoluene	62	10	100.0	0	62.3	34.9	107			
N-Nitrosodi-n-propylamine	63	10	100.0	0	63.1	30.7	111			
4-Nitrophenol	60	10	200.0	0	30.1	15	91.9			
Pentachlorophenol	96	20	200.0	0	48.2	33.3	93.5			
Phenol	66	10	200.0	0	32.8	20.9	86.4			
Pyrene	59	10	100.0	0	59.1	45.6	111			
1,2,4-Trichlorobenzene	52	10	100.0	0	51.9	38.7	88.2			
Surr: 2-Fluorophenol	75		200.0		37.5	15	98.1			
Surr: Phenol-d5	64		200.0		31.8	15	80.7			
Surr: 2,4,6-Tribromophenol	120		200.0		59.0	15	112			
Surr: Nitrobenzene-d5	62		100.0		61.9	27.2	90.7			
Surr: 2-Fluorobiphenyl	53		100.0		53.5	23.3	85.6			
Surr: 4-Terphenyl-d14	53		100.0		52.9	27.6	107			

Sample ID **lcsd-28753**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **28753**	RunNo: **38838**
Prep Date: **11/18/2016**	Analysis Date: **11/18/2016**	SeqNo: **1213708** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	51	10	100.0	0	50.7	42.9	100	19.0	37.4	
4-Chloro-3-methylphenol	98	10	200.0	0	48.9	36.2	110	24.0	26.8	
2-Chlorophenol	97	10	200.0	0	48.3	33.4	97.8	11.0	30.3	
1,4-Dichlorobenzene	36	10	100.0	0	36.2	32.8	79.3	9.67	32	
2,4-Dinitrotoluene	53	10	100.0	0	53.1	34.9	107	16.0	36.7	
N-Nitrosodi-n-propylamine	55	10	100.0	0	54.9	30.7	111	14.0	29.9	
4-Nitrophenol	52	10	200.0	0	25.8	15	91.9	15.5	28.8	
Pentachlorophenol	80	20	200.0	0	39.8	33.3	93.5	19.0	38.2	
Phenol	56	10	200.0	0	28.0	20.9	86.4	15.9	39.8	
Pyrene	51	10	100.0	0	50.8	45.6	111	15.2	28.3	
1,2,4-Trichlorobenzene	44	10	100.0	0	44.4	38.7	88.2	15.6	39.8	
Surr: 2-Fluorophenol	69		200.0		34.4	15	98.1	0	0	
Surr: Phenol-d5	57		200.0		28.4	15	80.7	0	0	
Surr: 2,4,6-Tribromophenol	97		200.0		48.5	15	112	0	0	
Surr: Nitrobenzene-d5	53		100.0		53.0	27.2	90.7	0	0	
Surr: 2-Fluorobiphenyl	45		100.0		44.8	23.3	85.6	0	0	

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID	**lcsd-28753**	SampType:	**LCSD**		TestCode:	**EPA Method 8270C: Semivolatiles**				
Client ID:	**LCSS02**	Batch ID:	**28753**		RunNo:	**38838**				
Prep Date:	**11/18/2016**	Analysis Date:	**11/18/2016**		SeqNo:	**1213708**	Units:	**µg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	44		100.0		44.3	27.6	107	0	0	

Sample ID	**mb-28753**	SampType:	**MBLK**		TestCode:	**EPA Method 8270C: Semivolatiles**				
Client ID:	**PBW**	Batch ID:	**28753**		RunNo:	**38838**				
Prep Date:	**11/18/2016**	Analysis Date:	**11/18/2016**		SeqNo:	**1213709**	Units:	**µg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	8.4	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	6.4	10								J
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	7.7	10								J
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID **mb-28753**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28753**	RunNo: **38838**
Prep Date: **11/18/2016**	Analysis Date: **11/18/2016**	SeqNo: **1213709** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	7.0	20								J
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								

Qualifiers:

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID **mb-28753**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28753**	RunNo: **38838**
Prep Date: **11/18/2016**	Analysis Date: **11/18/2016**	SeqNo: **1213709** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	91		200.0		45.4	15	98.1			
Surr: Phenol-d5	68		200.0		34.0	15	80.7			
Surr: 2,4,6-Tribromophenol	130		200.0		66.8	15	112			
Surr: Nitrobenzene-d5	62		100.0		62.4	27.2	90.7			
Surr: 2-Fluorobiphenyl	56		100.0		56.0	23.3	85.6			
Surr: 4-Terphenyl-d14	56		100.0		56.1	27.6	107			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611792**

19-Jan-17

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR Ground Water

Sample ID	**MB-R39585**	SampType:	**MBLK**	TestCode:	**EPA 335.4: Total Cyanide Subbed**					
Client ID:	**PBW**	Batch ID:	**R39585**	RunNo:	**39585**					
Prep Date:		Analysis Date:	**11/23/2016**	SeqNo:	**1240031**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cyanide	ND	0.0100								

Sample ID	**LCS-R39585**	SampType:	**LCS**	TestCode:	**EPA 335.4: Total Cyanide Subbed**					
Client ID:	**LCSW**	Batch ID:	**R39585**	RunNo:	**39585**					
Prep Date:		Analysis Date:	**11/23/2016**	SeqNo:	**1240032**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cyanide	0.504		0.5000	0	101	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1611792** RcptNo: **1**

Received by/date: JM 11/15/16

Logged By: **Ashley Gallegos** **11/15/2016 5:15:00 PM** AG

Completed By: **Ashley Gallegos** **11/16/2016 8:51:07 AM** AG

Reviewed By: AS 11/16/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	~~Yes~~ ☑	No ☐	
9. Was preservative added to bottles?	Yes ☑	~~No~~ ☑ 11/16/16	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 23, 1 (<2 or >12 unless noted)

Adjusted? yes

Checked by: JC

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:
For metals analysis: added 1mL HNO_3 to -005E, -007F, and -009F and 0.5mL HNO_3 to -009E for acceptable pH. Held 24 hrs prior to analysis.

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.4	Good	Yes			

11/16/16 @ 1104 JC

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address: 92 Giant Crossing Road, Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☐ Standard ☐ Rush

Project Name:

2016 4TH QTR - GROUND WATER

Project #:

QUARTERLY SAMPLING

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler:

On Ice: ☐ Yes ☐ No

Sample Temperature: 3.4

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611792	Analysis Request: 8260B + MTBE	8015D EXTENDED	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	Major CATIONS/ANIONS	8270	CYANIDE	8011 FOR EDB	Air Bubbles (Y or N)
11/14/2016	700	H20	FIELD BLANK	3-40ML VOAS	HCL	-001	X								
11/14/2016	820	H20	OW-30	MISC	MISC	-002	X	X	X	X				X	
11/14/2016	1135	H20	NAPIS-2	MISC	MISC	-003	X	X	X	X	X				
11/14/2016	1145	H20	KA-3	MISC	MISC	-004	X	X	X	X	X				
11/14/2016	1340	H20	NAPIS-3	MISC	MISC	-005	X	X	X	X	X				
11/14/2016	1231	H20	NAPIS-1	MISC	MISC	-006	X	X	X	X	X				
11/14/2016	1305	H20	OAPIS-1	MISC	MISC	-007	X	X	X	X	X	X	X		
11/14/2016	1500	H20	STP1-NW	MISC	MISC	-008	X	X	X	X	X				
11/14/2016	1145	H20	DUP-01	MISC	MISC	-009	X	X	X	X	X	X			
				MISC	MISC		X	X							
				MISC	MISC		X	X							
11/14/2016		H20	TRIP BLANK	3-40ML VOAS	HCL	-010	X								

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
11/15/16	1520			11/15/16	1521	
Date:	Time:	Relinquished by:	Received by:	Date	Time	
11/15/16	1715			11/15/16	1715	

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 14, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 4th Qtr Ground Water OrderNo.: 1611976

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 11/17/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 4th Qtr Ground Water
Collection Date: 11/16/2016 7:00:00 AM
Lab ID: 1611976-001 **Matrix:** AQUEOUS **Received Date:** 11/17/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Toluene	ND	0.12	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Naphthalene	ND	0.093	2.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Acetone	ND	4.9	10		µg/L	1	11/21/2016 7:57:06 PM	A38885
Bromobenzene	ND	0.098	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Bromoform	ND	0.10	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Bromomethane	ND	0.78	3.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
2-Butanone	ND	0.74	10		µg/L	1	11/21/2016 7:57:06 PM	A38885
Carbon disulfide	ND	0.60	10		µg/L	1	11/21/2016 7:57:06 PM	A38885
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Chloroethane	ND	0.19	2.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Chloroform	ND	0.089	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Chloromethane	ND	0.21	3.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Dibromomethane	ND	0.12	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/21/2016 7:57:06 PM	A38885

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 4th Qtr Ground Water
Collection Date: 11/16/2016 7:00:00 AM
Lab ID: 1611976-001
Matrix: AQUEOUS
Received Date: 11/17/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
2-Hexanone	ND	0.84	10		µg/L	1	11/21/2016 7:57:06 PM	A38885
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/21/2016 7:57:06 PM	A38885
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Styrene	ND	0.11	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/21/2016 7:57:06 PM	A38885
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/21/2016 7:57:06 PM	A38885
Surr: 1,2-Dichloroethane-d4	98.9	0	70-130		%Rec	1	11/21/2016 7:57:06 PM	A38885
Surr: 4-Bromofluorobenzene	95.1	0	70-130		%Rec	1	11/21/2016 7:57:06 PM	A38885
Surr: Dibromofluoromethane	110	0	70-130		%Rec	1	11/21/2016 7:57:06 PM	A38885
Surr: Toluene-d8	101	0	70-130		%Rec	1	11/21/2016 7:57:06 PM	A38885

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-5
Project: 2016 4th Qtr Ground Water
Collection Date: 11/16/2016 9:12:00 AM
Lab ID: 1611976-002
Matrix: AQUEOUS
Received Date: 11/17/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	4.9	0.69	1.0		mg/L	1	11/21/2016 2:03:07 PM	28752
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/21/2016 2:03:07 PM	28752
Surr: DNOP	103	0	77.1-144		%Rec	1	11/21/2016 2:03:07 PM	28752
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	7.6	0.25	0.50		mg/L	10	11/21/2016 3:22:28 PM	G38887
Surr: BFB	113	0	66.4-120		%Rec	10	11/21/2016 3:22:28 PM	G38887
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	720	4.8	50		µg/L	50	11/22/2016 9:56:27 AM	R38929
Toluene	3.5	0.59	5.0	J	µg/L	5	11/21/2016 8:54:46 PM	A38885
Ethylbenzene	340	0.56	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
Methyl tert-butyl ether (MTBE)	1.2	1.1	5.0	J	µg/L	5	11/21/2016 8:54:46 PM	A38885
1,2,4-Trimethylbenzene	62	0.55	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
1,3,5-Trimethylbenzene	14	0.58	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
Naphthalene	140	0.46	10		µg/L	5	11/21/2016 8:54:46 PM	A38885
1-Methylnaphthalene	120	1.0	20		µg/L	5	11/21/2016 8:54:46 PM	A38885
2-Methylnaphthalene	120	0.79	20		µg/L	5	11/21/2016 8:54:46 PM	A38885
Acetone	ND	25	50		µg/L	5	11/21/2016 8:54:46 PM	A38885
Bromobenzene	ND	0.49	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
Bromodichloromethane	ND	0.70	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
Bromoform	ND	0.51	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
Bromomethane	ND	3.9	15		µg/L	5	11/21/2016 8:54:46 PM	A38885
2-Butanone	ND	3.7	50		µg/L	5	11/21/2016 8:54:46 PM	A38885
Carbon disulfide	ND	3.0	50		µg/L	5	11/21/2016 8:54:46 PM	A38885
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
Chlorobenzene	ND	0.57	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
Chloroethane	ND	0.96	10		µg/L	5	11/21/2016 8:54:46 PM	A38885
Chloroform	ND	0.44	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
Chloromethane	ND	1.1	15		µg/L	5	11/21/2016 8:54:46 PM	A38885
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	11/21/2016 8:54:46 PM	A38885
Dibromochloromethane	ND	0.43	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
Dibromomethane	ND	0.60	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-5
Project: 2016 4th Qtr Ground Water
Collection Date: 11/16/2016 9:12:00 AM
Lab ID: 1611976-002
Matrix: AQUEOUS
Received Date: 11/17/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
2,2-Dichloropropane	ND	0.83	10		µg/L	5	11/21/2016 8:54:46 PM	A38885
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
2-Hexanone	ND	4.2	50		µg/L	5	11/21/2016 8:54:46 PM	A38885
Isopropylbenzene	20	0.52	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
4-Isopropyltoluene	5.6	0.70	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	11/21/2016 8:54:46 PM	A38885
Methylene Chloride	ND	0.94	15		µg/L	5	11/21/2016 8:54:46 PM	A38885
n-Butylbenzene	12	0.80	15	J	µg/L	5	11/21/2016 8:54:46 PM	A38885
n-Propylbenzene	43	0.66	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
sec-Butylbenzene	7.1	0.62	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
Styrene	ND	0.55	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
tert-Butylbenzene	0.67	0.58	5.0	J	µg/L	5	11/21/2016 8:54:46 PM	A38885
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	11/21/2016 8:54:46 PM	A38885
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	11/21/2016 8:54:46 PM	A38885
Vinyl chloride	ND	0.98	5.0		µg/L	5	11/21/2016 8:54:46 PM	A38885
Xylenes, Total	130	1.8	7.5		µg/L	5	11/21/2016 8:54:46 PM	A38885
Surr: 1,2-Dichloroethane-d4	86.2	0	70-130		%Rec	5	11/21/2016 8:54:46 PM	A38885
Surr: 4-Bromofluorobenzene	84.4	0	70-130		%Rec	5	11/21/2016 8:54:46 PM	A38885
Surr: Dibromofluoromethane	88.5	0	70-130		%Rec	5	11/21/2016 8:54:46 PM	A38885
Surr: Toluene-d8	98.8	0	70-130		%Rec	5	11/21/2016 8:54:46 PM	A38885

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-6
Project: 2016 4th Qtr Ground Water
Collection Date: 11/16/2016 9:44:00 AM
Lab ID: 1611976-003
Matrix: AQUEOUS
Received Date: 11/17/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	240	6.9	10		mg/L	10	11/21/2016 4:56:35 PM	28752
Motor Oil Range Organics (MRO)	ND	50	50		mg/L	10	11/21/2016 4:56:35 PM	28752
Surr: DNOP	0	0	77.1-144	S	%Rec	10	11/21/2016 4:56:35 PM	28752
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	7.1	0.51	1.0		mg/L	20	11/21/2016 4:35:33 PM	G38887
Surr: BFB	105	0	66.4-120		%Rec	20	11/21/2016 4:35:33 PM	G38887
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	270	0.96	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
Toluene	120	1.2	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
Ethylbenzene	290	1.1	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
Methyl tert-butyl ether (MTBE)	14	2.1	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
1,2,4-Trimethylbenzene	60	1.1	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
1,3,5-Trimethylbenzene	100	1.2	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
1,2-Dichloroethane (EDC)	ND	1.2	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
Naphthalene	610	0.93	20		µg/L	10	11/21/2016 11:47:22 PM	A38885
1-Methylnaphthalene	330	2.0	40		µg/L	10	11/21/2016 11:47:22 PM	A38885
2-Methylnaphthalene	350	1.6	40		µg/L	10	11/21/2016 11:47:22 PM	A38885
Acetone	ND	49	100		µg/L	10	11/21/2016 11:47:22 PM	A38885
Bromobenzene	ND	0.98	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
Bromodichloromethane	ND	1.4	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
Bromoform	ND	1.0	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
Bromomethane	ND	7.8	30		µg/L	10	11/21/2016 11:47:22 PM	A38885
2-Butanone	ND	7.4	100		µg/L	10	11/21/2016 11:47:22 PM	A38885
Carbon disulfide	ND	6.0	100		µg/L	10	11/21/2016 11:47:22 PM	A38885
Carbon Tetrachloride	ND	1.1	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
Chlorobenzene	ND	1.1	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
Chloroethane	ND	1.9	20		µg/L	10	11/21/2016 11:47:22 PM	A38885
Chloroform	ND	0.89	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
Chloromethane	ND	2.1	30		µg/L	10	11/21/2016 11:47:22 PM	A38885
2-Chlorotoluene	ND	4.0	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
4-Chlorotoluene	ND	1.3	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
cis-1,2-DCE	ND	1.2	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	11/21/2016 11:47:22 PM	A38885
Dibromochloromethane	ND	0.87	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
Dibromomethane	ND	1.2	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	11/21/2016 11:47:22 PM	A38885

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-6
Project: 2016 4th Qtr Ground Water
Collection Date: 11/16/2016 9:44:00 AM
Lab ID: 1611976-003
Matrix: AQUEOUS
Received Date: 11/17/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
1,1-Dichloroethane	ND	1.1	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
1,1-Dichloroethene	ND	1.1	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
1,2-Dichloropropane	ND	1.1	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
1,3-Dichloropropane	ND	1.6	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
2,2-Dichloropropane	ND	1.7	20		µg/L	10	11/21/2016 11:47:22 PM	A38885
1,1-Dichloropropene	ND	1.3	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
Hexachlorobutadiene	ND	2.0	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
2-Hexanone	ND	8.4	100		µg/L	10	11/21/2016 11:47:22 PM	A38885
Isopropylbenzene	24	1.0	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
4-Isopropyltoluene	11	1.4	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	11/21/2016 11:47:22 PM	A38885
Methylene Chloride	ND	1.9	30		µg/L	10	11/21/2016 11:47:22 PM	A38885
n-Butylbenzene	15	1.6	30	J	µg/L	10	11/21/2016 11:47:22 PM	A38885
n-Propylbenzene	48	1.3	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
sec-Butylbenzene	8.8	1.2	10	J	µg/L	10	11/21/2016 11:47:22 PM	A38885
Styrene	ND	1.1	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
tert-Butylbenzene	1.4	1.2	10	J	µg/L	10	11/21/2016 11:47:22 PM	A38885
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	11/21/2016 11:47:22 PM	A38885
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
trans-1,2-DCE	ND	4.0	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
1,1,1-Trichloroethane	ND	0.91	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
Trichlorofluoromethane	ND	2.0	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	11/21/2016 11:47:22 PM	A38885
Vinyl chloride	ND	2.0	10		µg/L	10	11/21/2016 11:47:22 PM	A38885
Xylenes, Total	780	3.7	15		µg/L	10	11/21/2016 11:47:22 PM	A38885
Surr: 1,2-Dichloroethane-d4	97.9	0	70-130		%Rec	10	11/21/2016 11:47:22 PM	A38885
Surr: 4-Bromofluorobenzene	95.1	0	70-130		%Rec	10	11/21/2016 11:47:22 PM	A38885
Surr: Dibromofluoromethane	101	0	70-130		%Rec	10	11/21/2016 11:47:22 PM	A38885
Surr: Toluene-d8	99.9	0	70-130		%Rec	10	11/21/2016 11:47:22 PM	A38885

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-2
Project: 2016 4th Qtr Ground Water
Collection Date: 11/16/2016 12:10:00 PM
Lab ID: 1611976-004
Matrix: AQUEOUS
Received Date: 11/17/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	8.4	0.69	1.0		mg/L	1	11/21/2016 2:46:23 PM	28752
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/21/2016 2:46:23 PM	28752
Surr: DNOP	101	0	77.1-144		%Rec	1	11/21/2016 2:46:23 PM	28752
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	130	5.1	10		mg/L	200	11/21/2016 4:59:56 PM	G38887
Surr: BFB	93.1	0	66.4-120		%Rec	200	11/21/2016 4:59:56 PM	G38887
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	38000	190	2000		µg/L	2000	11/22/2016 12:16:08 AM	A38885
Toluene	3400	24	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
Ethylbenzene	1200	22	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
Methyl tert-butyl ether (MTBE)	1700	42	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
1,2,4-Trimethylbenzene	200	22	200	J	µg/L	200	11/22/2016 12:44:55 AM	A38885
1,3,5-Trimethylbenzene	49	23	200	J	µg/L	200	11/22/2016 12:44:55 AM	A38885
1,2-Dichloroethane (EDC)	ND	23	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
1,2-Dibromoethane (EDB)	ND	22	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
Naphthalene	150	19	400	J	µg/L	200	11/22/2016 12:44:55 AM	A38885
1-Methylnaphthalene	130	41	800	J	µg/L	200	11/22/2016 12:44:55 AM	A38885
2-Methylnaphthalene	ND	32	800		µg/L	200	11/22/2016 12:44:55 AM	A38885
Acetone	ND	980	2000		µg/L	200	11/22/2016 12:44:55 AM	A38885
Bromobenzene	ND	20	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
Bromodichloromethane	ND	28	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
Bromoform	ND	20	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
Bromomethane	ND	160	600		µg/L	200	11/22/2016 12:44:55 AM	A38885
2-Butanone	ND	150	2000		µg/L	200	11/22/2016 12:44:55 AM	A38885
Carbon disulfide	ND	120	2000		µg/L	200	11/22/2016 12:44:55 AM	A38885
Carbon Tetrachloride	ND	22	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
Chlorobenzene	ND	23	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
Chloroethane	ND	38	400		µg/L	200	11/22/2016 12:44:55 AM	A38885
Chloroform	ND	18	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
Chloromethane	ND	43	600		µg/L	200	11/22/2016 12:44:55 AM	A38885
2-Chlorotoluene	ND	80	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
4-Chlorotoluene	ND	26	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
cis-1,2-DCE	ND	25	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
cis-1,3-Dichloropropene	ND	21	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
1,2-Dibromo-3-chloropropane	ND	47	400		µg/L	200	11/22/2016 12:44:55 AM	A38885
Dibromochloromethane	ND	17	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
Dibromomethane	ND	24	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
1,2-Dichlorobenzene	ND	80	200		µg/L	200	11/22/2016 12:44:55 AM	A38885

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-2
Project: 2016 4th Qtr Ground Water
Collection Date: 11/16/2016 12:10:00 PM
Lab ID: 1611976-004
Matrix: AQUEOUS
Received Date: 11/17/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichlorobenzene	ND	29	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
1,4-Dichlorobenzene	ND	29	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
Dichlorodifluoromethane	ND	71	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
1,1-Dichloroethane	ND	22	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
1,1-Dichloroethene	ND	21	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
1,2-Dichloropropane	ND	22	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
1,3-Dichloropropane	ND	31	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
2,2-Dichloropropane	ND	33	400		µg/L	200	11/22/2016 12:44:55 AM	A38885
1,1-Dichloropropene	ND	27	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
Hexachlorobutadiene	ND	40	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
2-Hexanone	ND	170	2000		µg/L	200	11/22/2016 12:44:55 AM	A38885
Isopropylbenzene	ND	21	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
4-Isopropyltoluene	ND	28	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
4-Methyl-2-pentanone	ND	86	2000		µg/L	200	11/22/2016 12:44:55 AM	A38885
Methylene Chloride	ND	37	600		µg/L	200	11/22/2016 12:44:55 AM	A38885
n-Butylbenzene	ND	32	600		µg/L	200	11/22/2016 12:44:55 AM	A38885
n-Propylbenzene	63	26	200	J	µg/L	200	11/22/2016 12:44:55 AM	A38885
sec-Butylbenzene	ND	25	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
Styrene	ND	22	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
tert-Butylbenzene	ND	23	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
1,1,1,2-Tetrachloroethane	ND	22	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
1,1,2,2-Tetrachloroethane	ND	26	400		µg/L	200	11/22/2016 12:44:55 AM	A38885
Tetrachloroethene (PCE)	ND	30	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
trans-1,2-DCE	ND	80	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
trans-1,3-Dichloropropene	ND	21	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
1,2,3-Trichlorobenzene	ND	23	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
1,2,4-Trichlorobenzene	ND	27	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
1,1,1-Trichloroethane	ND	18	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
1,1,2-Trichloroethane	ND	25	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
Trichloroethene (TCE)	ND	35	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
Trichlorofluoromethane	ND	41	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
1,2,3-Trichloropropane	ND	40	400		µg/L	200	11/22/2016 12:44:55 AM	A38885
Vinyl chloride	ND	39	200		µg/L	200	11/22/2016 12:44:55 AM	A38885
Xylenes, Total	3200	73	300		µg/L	200	11/22/2016 12:44:55 AM	A38885
Surr: 1,2-Dichloroethane-d4	99.6	0	70-130		%Rec	200	11/22/2016 12:44:55 AM	A38885
Surr: 4-Bromofluorobenzene	93.0	0	70-130		%Rec	200	11/22/2016 12:44:55 AM	A38885
Surr: Dibromofluoromethane	102	0	70-130		%Rec	200	11/22/2016 12:44:55 AM	A38885
Surr: Toluene-d8	100	0	70-130		%Rec	200	11/22/2016 12:44:55 AM	A38885

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: East LDU
Project: 2016 4th Qtr Ground Water
Collection Date: 11/17/2016 10:15:00 AM
Lab ID: 1611976-005
Matrix: AQUEOUS
Received Date: 11/17/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	16	0.69	1.0		mg/L	1	11/21/2016 3:08:03 PM	28752
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/21/2016 3:08:03 PM	28752
Surr: DNOP	103	0	77.1-144		%Rec	1	11/21/2016 3:08:03 PM	28752
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	1.6	0.25	0.50		mg/L	10	11/21/2016 5:24:17 PM	G38887
Surr: BFB	114	0	66.4-120		%Rec	10	11/21/2016 5:24:17 PM	G38887
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.085	0.0013	0.0020		mg/L	1	12/8/2016 2:07:54 PM	A39247
Cadmium	ND	0.00075	0.0020		mg/L	1	12/8/2016 2:07:54 PM	A39247
Chromium	0.44	0.0018	0.0060	*	mg/L	1	12/8/2016 2:07:54 PM	A39247
Copper	ND	0.0040	0.0060		mg/L	1	12/8/2016 2:07:54 PM	A39247
Iron	47	1.0	1.0	*	mg/L	50	12/9/2016 12:26:49 PM	A39280
Manganese	16	0.016	0.10	*	mg/L	50	12/9/2016 12:26:49 PM	A39280
Silver	ND	0.0028	0.0050		mg/L	1	12/9/2016 12:20:56 PM	A39280
Zinc	0.018	0.0028	0.010		mg/L	1	12/8/2016 2:07:54 PM	A39247
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.097	0.00079	0.0020		mg/L	1	12/8/2016 3:47:22 PM	29034
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 3:47:22 PM	29034
Chromium	0.53	0.0027	0.0060	*	mg/L	1	12/8/2016 3:47:22 PM	29034
Copper	0.0097	0.0030	0.0060		mg/L	1	12/8/2016 3:47:22 PM	29034
Iron	55	2.0	2.0	*	mg/L	100	12/9/2016 11:58:43 AM	29034
Manganese	16	0.014	0.10	*	mg/L	50	12/9/2016 11:56:40 AM	29034
Silver	0.0064	0.0015	0.0050		mg/L	1	12/8/2016 3:47:22 PM	29034
Zinc	0.74	0.0027	0.010		mg/L	1	12/8/2016 3:47:22 PM	29034
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0025	0.00014	0.0010		mg/L	1	11/28/2016 5:50:41 PM	C39007
Lead	ND	0.00017	0.00050		mg/L	1	11/28/2016 5:50:41 PM	C39007
Selenium	0.0022	0.0011	0.0050	J	mg/L	5	11/30/2016 7:00:27 PM	R39071
Uranium	0.00010	0.000051	0.00050	J	mg/L	1	11/28/2016 5:50:41 PM	C39007
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0033	0.00021	0.0010		mg/L	1	12/7/2016 5:48:42 PM	29034
Lead	0.0027	0.00041	0.0025		mg/L	5	12/8/2016 5:17:09 PM	29034
Selenium	0.0023	0.00094	0.0050	J	mg/L	5	12/8/2016 5:17:09 PM	29034
Uranium	ND	0.00087	0.0025		mg/L	5	12/8/2016 5:17:09 PM	29034
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	0.00028	0.000053	0.00020		mg/L	1	12/1/2016 10:37:25 AM	28920

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: East LDU
Project: 2016 4th Qtr Ground Water
Collection Date: 11/17/2016 10:15:00 AM
Lab ID: 1611976-005
Matrix: AQUEOUS
Received Date: 11/17/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: **AG**	
Benzene	110	0.48	5.0		µg/L	5	11/22/2016 1:13:36 AM	L38885
Toluene	8.2	0.59	5.0		µg/L	5	11/22/2016 1:13:36 AM	L38885
Ethylbenzene	100	0.56	5.0		µg/L	5	11/22/2016 1:13:36 AM	L38885
Methyl tert-butyl ether (MTBE)	6.3	1.1	5.0		µg/L	5	11/22/2016 1:13:36 AM	L38885
1,2,4-Trimethylbenzene	7.0	0.55	5.0		µg/L	5	11/22/2016 1:13:36 AM	L38885
1,3,5-Trimethylbenzene	39	0.58	5.0		µg/L	5	11/22/2016 1:13:36 AM	L38885
Xylenes, Total	9.8	1.8	7.5		µg/L	5	11/22/2016 1:13:36 AM	L38885
Surr: 1,2-Dichloroethane-d4	99.6	0	70-130		%Rec	5	11/22/2016 1:13:36 AM	L38885
Surr: 4-Bromofluorobenzene	97.8	0	70-130		%Rec	5	11/22/2016 1:13:36 AM	L38885
Surr: Dibromofluoromethane	102	0	70-130		%Rec	5	11/22/2016 1:13:36 AM	L38885
Surr: Toluene-d8	97.3	0	70-130		%Rec	5	11/22/2016 1:13:36 AM	L38885

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: West LDU
Project: 2016 4th Qtr Ground Water
Collection Date: 11/17/2016 10:30:00 AM
Lab ID: 1611976-006
Matrix: AQUEOUS
Received Date: 11/17/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	8.6	0.69	1.0		mg/L	1	11/21/2016 3:29:39 PM	28752
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/21/2016 3:29:39 PM	28752
Surr: DNOP	104	0	77.1-144		%Rec	1	11/21/2016 3:29:39 PM	28752
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	2.2	0.13	0.25		mg/L	5	11/21/2016 5:48:42 PM	G38887
Surr: BFB	129	0	66.4-120	S	%Rec	5	11/21/2016 5:48:42 PM	G38887
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.24	0.0013	0.0020		mg/L	1	12/8/2016 1:53:42 PM	A39247
Cadmium	ND	0.00075	0.0020		mg/L	1	12/8/2016 1:53:42 PM	A39247
Chromium	0.67	0.0088	0.030	*	mg/L	5	12/9/2016 12:35:17 PM	A39280
Copper	ND	0.0040	0.0060		mg/L	1	12/8/2016 1:53:42 PM	A39247
Iron	0.17	0.020	0.020		mg/L	1	12/8/2016 1:53:42 PM	A39247
Manganese	0.51	0.00032	0.0020	*	mg/L	1	12/8/2016 1:53:42 PM	A39247
Silver	ND	0.0028	0.0050		mg/L	1	12/9/2016 12:28:53 PM	A39280
Zinc	0.0045	0.0028	0.010	J	mg/L	1	12/8/2016 1:53:42 PM	A39247
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.26	0.00079	0.0020		mg/L	1	12/8/2016 3:49:20 PM	29034
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 3:49:20 PM	29034
Chromium	0.77	0.0027	0.0060	*	mg/L	1	12/8/2016 3:49:20 PM	29034
Copper	ND	0.0030	0.0060		mg/L	1	12/8/2016 3:49:20 PM	29034
Iron	3.3	0.20	0.20	*	mg/L	10	12/9/2016 12:00:53 PM	29034
Manganese	0.56	0.00027	0.0020	*	mg/L	1	12/8/2016 3:49:20 PM	29034
Silver	ND	0.0015	0.0050		mg/L	1	12/8/2016 3:49:20 PM	29034
Zinc	0.079	0.0027	0.010		mg/L	1	12/8/2016 3:49:20 PM	29034
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0040	0.00014	0.0010		mg/L	1	11/28/2016 5:53:45 PM	C39007
Lead	ND	0.00017	0.00050		mg/L	1	11/28/2016 5:53:45 PM	C39007
Selenium	0.0045	0.00021	0.0010		mg/L	1	11/28/2016 5:53:45 PM	C39007
Uranium	0.00066	0.000051	0.00050		mg/L	1	11/28/2016 5:53:45 PM	C39007
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0040	0.00021	0.0010		mg/L	1	12/7/2016 5:53:51 PM	29034
Lead	0.00083	0.00041	0.0025	J	mg/L	5	12/8/2016 5:22:17 PM	29034
Selenium	0.0029	0.00094	0.0050	J	mg/L	5	12/8/2016 5:22:17 PM	29034
Uranium	ND	0.00087	0.0025		mg/L	5	12/8/2016 5:22:17 PM	29034
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	0.00026	0.000053	0.00020		mg/L	1	12/1/2016 10:39:25 AM	28920

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: West LDU
Project: 2016 4th Qtr Ground Water
Collection Date: 11/17/2016 10:30:00 AM
Lab ID: 1611976-006
Matrix: AQUEOUS
Received Date: 11/17/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: **AG**	
Benzene	140	0.96	10		µg/L	10	11/22/2016 2:39:35 AM	L38885
Toluene	15	1.2	10		µg/L	10	11/22/2016 2:39:35 AM	L38885
Ethylbenzene	38	1.1	10		µg/L	10	11/22/2016 2:39:35 AM	L38885
Methyl tert-butyl ether (MTBE)	ND	2.1	10		µg/L	10	11/22/2016 2:39:35 AM	L38885
1,2,4-Trimethylbenzene	9.8	1.1	10	J	µg/L	10	11/22/2016 2:39:35 AM	L38885
1,3,5-Trimethylbenzene	3.4	1.2	10	J	µg/L	10	11/22/2016 2:39:35 AM	L38885
Xylenes, Total	24	3.7	15		µg/L	10	11/22/2016 2:39:35 AM	L38885
Surr: 1,2-Dichloroethane-d4	100	0	70-130		%Rec	10	11/22/2016 2:39:35 AM	L38885
Surr: 4-Bromofluorobenzene	90.9	0	70-130		%Rec	10	11/22/2016 2:39:35 AM	L38885
Surr: Dibromofluoromethane	96.0	0	70-130		%Rec	10	11/22/2016 2:39:35 AM	L38885
Surr: Toluene-d8	102	0	70-130		%Rec	10	11/22/2016 2:39:35 AM	L38885

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: STP1 to EP-2
Project: 2016 4th Qtr Ground Water
Collection Date: 11/17/2016 10:45:00 AM
Lab ID: 1611976-007
Matrix: AQUEOUS
Received Date: 11/17/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	0.95	0.69	1.0	J	mg/L	1	11/28/2016 9:55:33 PM	28752
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/28/2016 9:55:33 PM	28752
Surr: DNOP	134	0	77.1-144		%Rec	1	11/28/2016 9:55:33 PM	28752
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.25	0.50	D	mg/L	10	11/21/2016 6:13:06 PM	G38887
Surr: BFB	95.5	0	66.4-120	D	%Rec	10	11/21/2016 6:13:06 PM	G38887
SM5210B: BOD							Analyst: **SMS**	
Biochemical Oxygen Demand	1000	2.0	2.0		mg/L	1	11/23/2016 12:24:00 PM	28754
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.96	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Toluene	ND	1.2	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Ethylbenzene	ND	1.1	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Methyl tert-butyl ether (MTBE)	ND	2.1	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1,2,4-Trimethylbenzene	ND	1.1	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1,3,5-Trimethylbenzene	ND	1.2	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1,2-Dichloroethane (EDC)	ND	1.2	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1,2-Dibromoethane (EDB)	ND	1.1	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Naphthalene	ND	0.93	20	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1-Methylnaphthalene	ND	2.0	40	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
2-Methylnaphthalene	ND	1.6	40	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Acetone	2400	490	1000		µg/L	100	11/22/2016 10:25:09 AM	R38929
Bromobenzene	ND	0.98	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Bromodichloromethane	ND	1.4	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Bromoform	ND	1.0	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Bromomethane	ND	7.8	30	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
2-Butanone	76	7.4	100	JD	µg/L	10	11/22/2016 3:08:12 AM	A38885
Carbon disulfide	13	6.0	100	JD	µg/L	10	11/22/2016 3:08:12 AM	A38885
Carbon Tetrachloride	ND	1.1	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Chlorobenzene	ND	1.1	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Chloroethane	ND	1.9	20	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Chloroform	ND	0.89	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Chloromethane	ND	2.1	30	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
2-Chlorotoluene	ND	4.0	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
4-Chlorotoluene	ND	1.3	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
cis-1,2-DCE	ND	1.2	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
cis-1,3-Dichloropropene	ND	1.1	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1,2-Dibromo-3-chloropropane	ND	2.3	20	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Dibromochloromethane	ND	0.87	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885

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Hall Environmental Analysis Laboratory, Inc.

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Client Sample ID: STP1 to EP-2
Project: 2016 4th Qtr Ground Water
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Lab ID: 1611976-007
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Received Date: 11/17/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Dibromomethane	ND	1.2	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1,2-Dichlorobenzene	ND	4.0	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1,3-Dichlorobenzene	ND	1.4	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1,4-Dichlorobenzene	ND	1.4	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Dichlorodifluoromethane	ND	3.6	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1,1-Dichloroethane	ND	1.1	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1,1-Dichloroethene	ND	1.1	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1,2-Dichloropropane	ND	1.1	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1,3-Dichloropropane	ND	1.6	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
2,2-Dichloropropane	ND	1.7	20	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1,1-Dichloropropene	ND	1.3	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Hexachlorobutadiene	ND	2.0	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
2-Hexanone	ND	8.4	100	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Isopropylbenzene	ND	1.0	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
4-Isopropyltoluene	ND	1.4	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
4-Methyl-2-pentanone	ND	4.3	100	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Methylene Chloride	ND	1.9	30	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
n-Butylbenzene	ND	1.6	30	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
n-Propylbenzene	ND	1.3	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
sec-Butylbenzene	ND	1.2	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Styrene	ND	1.1	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
tert-Butylbenzene	ND	1.2	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1,1,1,2-Tetrachloroethane	ND	1.1	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1,1,2,2-Tetrachloroethane	ND	1.3	20	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Tetrachloroethene (PCE)	ND	1.5	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
trans-1,2-DCE	ND	4.0	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
trans-1,3-Dichloropropene	ND	1.0	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1,2,3-Trichlorobenzene	ND	1.1	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1,2,4-Trichlorobenzene	ND	1.3	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1,1,1-Trichloroethane	ND	0.91	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1,1,2-Trichloroethane	ND	1.3	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Trichloroethene (TCE)	ND	1.8	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Trichlorofluoromethane	ND	2.0	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
1,2,3-Trichloropropane	ND	2.0	20	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Vinyl chloride	ND	2.0	10	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Xylenes, Total	ND	3.7	15	D	µg/L	10	11/22/2016 3:08:12 AM	A38885
Surr: 1,2-Dichloroethane-d4	103	0	70-130	D	%Rec	10	11/22/2016 3:08:12 AM	A38885
Surr: 4-Bromofluorobenzene	99.5	0	70-130	D	%Rec	10	11/22/2016 3:08:12 AM	A38885
Surr: Dibromofluoromethane	103	0	70-130	D	%Rec	10	11/22/2016 3:08:12 AM	A38885

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: STP1 to EP-2
Project: 2016 4th Qtr Ground Water
Collection Date: 11/17/2016 10:45:00 AM
Lab ID: 1611976-007
Matrix: AQUEOUS
Received Date: 11/17/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: Toluene-d8	99.5	0	70-130	D	%Rec	10	11/22/2016 3:08:12 AM	A38885
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **KS**	
Total Dissolved Solids	4810	105	200	*D	mg/L	1	11/22/2016 7:21:00 PM	28797

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 4th Qtr Ground Water
Collection Date:
Lab ID: 1611976-008
Matrix: AQUEOUS
Received Date: 11/17/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/21/2016 6:37:28 PM	G38887
Surr: BFB	93.4	0	66.4-120		%Rec	1	11/21/2016 6:37:28 PM	G38887
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Toluene	ND	0.12	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Naphthalene	ND	0.093	2.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Acetone	5.7	4.9	10	J	µg/L	1	11/21/2016 8:25:58 PM	A38885
Bromobenzene	ND	0.098	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Bromoform	ND	0.10	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Bromomethane	ND	0.78	3.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
2-Butanone	ND	0.74	10		µg/L	1	11/21/2016 8:25:58 PM	A38885
Carbon disulfide	ND	0.60	10		µg/L	1	11/21/2016 8:25:58 PM	A38885
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Chloroethane	ND	0.19	2.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Chloroform	ND	0.089	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Chloromethane	ND	0.21	3.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Dibromomethane	ND	0.12	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 4th Qtr Ground Water
Collection Date:
Lab ID: 1611976-008
Matrix: AQUEOUS
Received Date: 11/17/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
2-Hexanone	ND	0.84	10		µg/L	1	11/21/2016 8:25:58 PM	A38885
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/21/2016 8:25:58 PM	A38885
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Styrene	ND	0.11	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/21/2016 8:25:58 PM	A38885
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/21/2016 8:25:58 PM	A38885
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	1	11/21/2016 8:25:58 PM	A38885
Surr: 4-Bromofluorobenzene	97.6	0	70-130		%Rec	1	11/21/2016 8:25:58 PM	A38885
Surr: Dibromofluoromethane	112	0	70-130		%Rec	1	11/21/2016 8:25:58 PM	A38885
Surr: Toluene-d8	102	0	70-130		%Rec	1	11/21/2016 8:25:58 PM	A38885

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	1620		500	50	11/28/2016 14:22	WC929837

WG929837

Wet Chemistry by Method 410.4

QUALITY CONTROL SUMMARY

L874528-01

ONE LAB. NATIONWIDE.

Method Blank (MB)

(MB) R3180855-1 11/28/16 14:19

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
COD	U		3.00	10.0

L874451-01 Original Sample (OS) • Duplicate (DUP)

(OS) L874451-01 11/28/16 14:21 • (DUP) R3180855-4 11/28/16 14:21

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
COD	84.5	82.1	1	3.00		20

L874774-01 Original Sample (OS) • Duplicate (DUP)

(OS) L874724-01 11/28/16 14:23 • (DUP) R3180855-7 11/28/16 14:23

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
COD	32.8	39.3	1	18.2		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3180855-2 11/28/16 14:19 • (LCSD) R3180855-3 11/28/16 14:19

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
COD	242	248	246	102	102	90.0-110			1.00	20

L874539-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L874539-01 11/28/16 14:22 • (MS) R3180855-5 11/28/16 14:22 • (MSD) R3180855-6 11/28/16 14:22

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
COD	400	70.0	503	423	183	97.0	1	90.0-120			2.00	20

ACCOUNT:

PROJECT:

SDG:

DATE/TIME:
11/30/16 08:21

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
J	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Rec.	Recovery.

Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611976**

14-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr Ground Water

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A39247**	RunNo: **39247**
Prep Date:	Analysis Date: **12/8/2016**	SeqNo: **1228271** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A39247**	RunNo: **39247**
Prep Date:	Analysis Date: **12/8/2016**	SeqNo: **1228272** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.4	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	99.6	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.49	0.020	0.5000	0	97.9	85	115			
Manganese	0.49	0.0020	0.5000	0	97.6	85	115			
Zinc	0.49	0.010	0.5000	0	99.0	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A39247**	RunNo: **39247**
Prep Date:	Analysis Date: **12/8/2016**	SeqNo: **1228273** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	97.5	50	150			J
Cadmium	0.0020	0.0020	0.002000	0	100	50	150			
Chromium	0.0067	0.0060	0.006000	0	111	50	150			
Copper	0.0064	0.0060	0.006000	0	108	50	150			
Iron	0.024	0.020	0.02000	0	122	50	150			
Manganese	0.0024	0.0020	0.002000	0	123	50	150			
Zinc	0.0067	0.010	0.005000	0	134	50	150			J

Sample ID **1611976-005CMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **East LDU**	Batch ID: **A39247**	RunNo: **39247**
Prep Date:	Analysis Date: **12/8/2016**	SeqNo: **1228490** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.58	0.0020	0.5000	0.08516	98.2	70	130			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611976**

14-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr Ground Water

Sample ID	**1611976-005CMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**East LDU**	Batch ID:	**A39247**		RunNo:	**39247**				
Prep Date:		Analysis Date:	**12/8/2016**		SeqNo:	**1228490**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.51	0.0020	0.5000	0	102	70	130			
Chromium	0.92	0.0060	0.5000	0.4449	95.0	70	130			
Copper	0.54	0.0060	0.5000	0	108	70	130			
Zinc	0.50	0.010	0.5000	0.01779	97.1	70	130			

Sample ID	**1611976-005CMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**East LDU**	Batch ID:	**A39247**		RunNo:	**39247**				
Prep Date:		Analysis Date:	**12/8/2016**		SeqNo:	**1228491**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.56	0.0020	0.5000	0.08516	95.2	70	130	2.68	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	0.168	20	
Chromium	0.92	0.0060	0.5000	0.4449	95.4	70	130	0.221	20	
Copper	0.53	0.0060	0.5000	0	106	70	130	1.67	20	
Zinc	0.51	0.010	0.5000	0.01779	98.9	70	130	1.77	20	

Sample ID	**1611976-006CMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**West LDU**	Batch ID:	**A39247**		RunNo:	**39247**				
Prep Date:		Analysis Date:	**12/8/2016**		SeqNo:	**1229084**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.73	0.0020	0.5000	0.2434	97.8	70	130			
Cadmium	0.52	0.0020	0.5000	0	103	70	130			
Copper	0.52	0.0060	0.5000	0	103	70	130			
Iron	0.65	0.020	0.5000	0.1733	96.0	70	130			
Manganese	0.99	0.0020	0.5000	0.5116	95.0	70	130			
Zinc	0.50	0.010	0.5000	0.004470	98.9	70	130			

Sample ID	**1611976-006CMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**West LDU**	Batch ID:	**A39247**		RunNo:	**39247**				
Prep Date:		Analysis Date:	**12/8/2016**		SeqNo:	**1229085**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.72	0.0020	0.5000	0.2434	95.0	70	130	1.94	20	
Cadmium	0.51	0.0020	0.5000	0	101	70	130	2.22	20	
Copper	0.50	0.0060	0.5000	0	100	70	130	3.13	20	
Iron	0.64	0.020	0.5000	0.1733	93.6	70	130	1.85	20	
Manganese	0.97	0.0020	0.5000	0.5116	92.0	70	130	1.53	20	
Zinc	0.49	0.010	0.5000	0.004470	97.0	70	130	1.95	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611976**

14-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr Ground Water

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A39280**	RunNo: **39280**
Prep Date:	Analysis Date: **12/9/2016**	SeqNo: **1229491** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A39280**	RunNo: **39280**
Prep Date:	Analysis Date: **12/9/2016**	SeqNo: **1229492** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.47	0.0060	0.5000	0	93.2	85	115			
Iron	0.47	0.020	0.5000	0	93.1	85	115			
Manganese	0.47	0.0020	0.5000	0	93.8	85	115			
Silver	0.097	0.0050	0.1000	0	97.1	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A39280**	RunNo: **39280**
Prep Date:	Analysis Date: **12/9/2016**	SeqNo: **1229493** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.0062	0.0060	0.006000	0	104	50	150			
Iron	0.025	0.020	0.02000	0	126	50	150			
Manganese	0.0020	0.0020	0.002000	0	98.0	50	150			J
Silver	0.0042	0.0050	0.005000	0	85.0	50	150			J

Sample ID **1611976-005CMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **East LDU**	Batch ID: **A39280**	RunNo: **39280**
Prep Date:	Analysis Date: **12/9/2016**	SeqNo: **1229496** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.081	0.0050	0.1000	0	81.1	70	130			

Sample ID **1611976-005CMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **East LDU**	Batch ID: **A39280**	RunNo: **39280**
Prep Date:	Analysis Date: **12/9/2016**	SeqNo: **1229497** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.085	0.0050	0.1000	0	85.2	70	130	4.93	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611976**

14-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr Ground Water

Sample ID	**1611976-006CMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**West LDU**	Batch ID:	**A39280**		RunNo:	**39280**				
Prep Date:		Analysis Date:	**12/9/2016**		SeqNo:	**1229500**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.095	0.0050	0.1000	0	94.7	70	130			

Sample ID	**1611976-006CMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**West LDU**	Batch ID:	**A39280**		RunNo:	**39280**				
Prep Date:		Analysis Date:	**12/9/2016**		SeqNo:	**1229501**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.089	0.0050	0.1000	0	89.2	70	130	6.01	20	

Sample ID	**1611976-006CMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**West LDU**	Batch ID:	**A39280**		RunNo:	**39280**				
Prep Date:		Analysis Date:	**12/9/2016**		SeqNo:	**1229503**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	3.0	0.030	2.500	0.6744	91.1	70	130			

Sample ID	**1611976-006CMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**West LDU**	Batch ID:	**A39280**		RunNo:	**39280**				
Prep Date:		Analysis Date:	**12/9/2016**		SeqNo:	**1229504**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	3.0	0.030	2.500	0.6744	94.4	70	130	2.78	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611976**

14-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr Ground Water

Sample ID **MB-29034**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **29034**	RunNo: **39247**
Prep Date: **12/6/2016**	Analysis Date: **12/8/2016**	SeqNo: **1228707** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	0.00038	0.0020								J
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-29034**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **29034**	RunNo: **39247**
Prep Date: **12/6/2016**	Analysis Date: **12/8/2016**	SeqNo: **1228708** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.53	0.0020	0.5000	0	105	85	115			
Chromium	0.52	0.0060	0.5000	0	103	85	115			
Copper	0.51	0.0060	0.5000	0	101	85	115			
Iron	0.49	0.020	0.5000	0	98.6	85	115			
Manganese	0.50	0.0020	0.5000	0	99.5	85	115			
Silver	0.097	0.0050	0.1000	0	97.4	85	115			
Zinc	0.52	0.010	0.5000	0	104	85	115			

Sample ID **LLLCS-29034**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **29034**	RunNo: **39247**
Prep Date: **12/6/2016**	Analysis Date: **12/8/2016**	SeqNo: **1228709** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0016	0.0020	0.002000	0	80.5	50	150			J
Cadmium	0.0018	0.0020	0.002000	0	88.5	50	150			J
Chromium	0.0061	0.0060	0.006000	0	102	50	150			
Copper	0.0050	0.0060	0.006000	0	83.2	50	150			J
Iron	0.021	0.020	0.02000	0	106	50	150			
Manganese	0.0021	0.0020	0.002000	0	104	50	150			
Silver	0.0042	0.0050	0.005000	0	84.8	50	150			J
Zinc	0.0059	0.010	0.005000	0	119	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611976**

14-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr Ground Water

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C39007**	RunNo: **39007**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1220004** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.4	85	115			
Lead	0.012	0.00050	0.01250	0	96.9	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.012	0.00050	0.01250	0	96.7	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C39007**	RunNo: **39007**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1220005** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	103	50	150			
Lead	0.00049	0.00050	0.0005000	0	97.6	50	150			J
Selenium	0.0011	0.0010	0.001000	0	106	50	150			
Uranium	0.00050	0.00050	0.0005000	0	100	50	150			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C39007**	RunNo: **39007**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1220009** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R39071**	RunNo: **39071**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1222065** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.027	0.0010	0.02500	0	107	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R39071**	RunNo: **39071**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1222066** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.027	0.0010	0.02500	0	108	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611976**

14-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr Ground Water

Sample ID	**LLLCS**	SampType:	**LCSLL**	TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**R39071**	RunNo:	**39071**					
Prep Date:		Analysis Date:	**11/30/2016**	SeqNo:	**1222067**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.00097	0.0010	0.001000	0	97.3	50	150			J

Sample ID	**LLLCS**	SampType:	**LCSLL**	TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**R39071**	RunNo:	**39071**					
Prep Date:		Analysis Date:	**11/30/2016**	SeqNo:	**1222068**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.0011	0.0010	0.001000	0	105	50	150			

Sample ID	**MB**	SampType:	**MBLK**	TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**R39071**	RunNo:	**39071**					
Prep Date:		Analysis Date:	**11/30/2016**	SeqNo:	**1222069**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID	**MB**	SampType:	**MBLK**	TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**R39071**	RunNo:	**39071**					
Prep Date:		Analysis Date:	**11/30/2016**	SeqNo:	**1222070**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611976**

14-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr Ground Water

Sample ID	**MB-29034**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**29034**	RunNo:	**39218**					
Prep Date:	**12/6/2016**	Analysis Date:	**12/7/2016**	SeqNo:	**1227106**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-29034**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**29034**	RunNo:	**39218**					
Prep Date:	**12/6/2016**	Analysis Date:	**12/7/2016**	SeqNo:	**1227108**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	102	85	115			
Lead	0.013	0.00050	0.01250	0	103	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID	**MSLLLCS-29034**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**29034**	RunNo:	**39218**					
Prep Date:	**12/6/2016**	Analysis Date:	**12/7/2016**	SeqNo:	**1227110**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00091	0.0010	0.001000	0	91.0	50	150			J
Lead	0.00049	0.00050	0.0005000	0	97.1	50	150			J
Selenium	0.00091	0.0010	0.001000	0	91.1	50	150			J
Uranium	0.00037	0.00050	0.0005000	0	74.0	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611976**

14-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr Ground Water

Sample ID	**MB-28920**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**28920**	RunNo:	**39070**					
Prep Date:	**11/30/2016**	Analysis Date:	**12/1/2016**	SeqNo:	**1222324**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000084	0.00020								J

Sample ID	**LCS-28920**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**28920**	RunNo:	**39070**					
Prep Date:	**11/30/2016**	Analysis Date:	**12/1/2016**	SeqNo:	**1222325**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0047	0.00020	0.005000	0	94.2	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611976**

14-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr Ground Water

Sample ID **LCS-28752**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **28752**	RunNo: **38852**
Prep Date: **11/18/2016**	Analysis Date: **11/21/2016**	SeqNo: **1214598** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.6	1.0	5.000	0	92.9	63.2	155			
Surr: DNOP	0.47		0.5000		94.9	77.1	144			

Sample ID **MB-28752**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **28752**	RunNo: **38852**
Prep Date: **11/18/2016**	Analysis Date: **11/21/2016**	SeqNo: **1214599** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		102	77.1	144			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611976**

14-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr Ground Water

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G38887**	RunNo: **38887**
Prep Date:	Analysis Date: **11/21/2016**	SeqNo: **1215345** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		96.0	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G38887**	RunNo: **38887**
Prep Date:	Analysis Date: **11/21/2016**	SeqNo: **1215346** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	92.7	80	120			
Surr: BFB	20		20.00		99.8	66.4	120			

Sample ID **1611976-002AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **RW-5**	Batch ID: **G38887**	RunNo: **38887**
Prep Date:	Analysis Date: **11/21/2016**	SeqNo: **1215349** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	9.5	0.50	5.000	7.584	38.6	64.8	129			S
Surr: BFB	240		200.0		118	66.4	120			

Sample ID **1611976-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **RW-5**	Batch ID: **G38887**	RunNo: **38887**
Prep Date:	Analysis Date: **11/21/2016**	SeqNo: **1215350** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	11	0.50	5.000	7.584	58.7	64.8	129	10.0	20	S
Surr: BFB	240		200.0		119	66.4	120	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611976**

14-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr Ground Water

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **L38885**	RunNo: **38885**
Prep Date:	Analysis Date: **11/21/2016**	SeqNo: **1215242** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	70	130			
Toluene	20	1.0	20.00	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.3	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	10		10.00		99.6	70	130			

Sample ID **rb4**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **L38885**	RunNo: **38885**
Prep Date:	Analysis Date: **11/21/2016**	SeqNo: **1215245** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.4	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID **1611976-005ams**	SampType: **MS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **East LDU**	Batch ID: **L38885**	RunNo: **38885**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1215249** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	200	5.0	100.0	110.4	93.2	70	130			
Toluene	110	5.0	100.0	8.165	101	70	130			
Surr: 1,2-Dichloroethane-d4	50		50.00		101	70	130			
Surr: 4-Bromofluorobenzene	45		50.00		89.3	70	130			
Surr: Dibromofluoromethane	47		50.00		93.7	70	130			
Surr: Toluene-d8	51		50.00		103	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611976**

14-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr Ground Water

Sample ID **1611976-005amsd**	SampType: **MSD**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **East LDU**	Batch ID: **L38885**	RunNo: **38885**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1215250** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	200	5.0	100.0	110.4	90.5	70	130	1.34	20	
Toluene	110	5.0	100.0	8.165	101	70	130	0.277	20	
Surr: 1,2-Dichloroethane-d4	52		50.00		104	70	130	0	0	
Surr: 4-Bromofluorobenzene	47		50.00		93.4	70	130	0	0	
Surr: Dibromofluoromethane	48		50.00		96.3	70	130	0	0	
Surr: Toluene-d8	52		50.00		104	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611976**

14-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr Ground Water

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **A38885**	RunNo: **38885**
Prep Date:	Analysis Date: **11/21/2016**	SeqNo: **1215205** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	70	130			
Toluene	20	1.0	20.00	0	102	70	130			
Chlorobenzene	19	1.0	20.00	0	94.4	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	109	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	94.2	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.3	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	10		10.00		99.6	70	130			

Sample ID **rb4**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **A38885**	RunNo: **38885**
Prep Date:	Analysis Date: **11/21/2016**	SeqNo: **1215207** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1611976**
14-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Qtr Ground Water

Sample ID **rb4**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **A38885**	RunNo: **38885**
Prep Date:	Analysis Date: **11/21/2016**	SeqNo: **1215207** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611976**

14-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr Ground Water

Sample ID **rb4**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **A38885**	RunNo: **38885**
Prep Date:	Analysis Date: **11/21/2016**	SeqNo: **1215207** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.4	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R38929**	RunNo: **38929**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1216951** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.3	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.3	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38929**	RunNo: **38929**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1217007** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Acetone	ND	10								
Surr: 1,2-Dichloroethane-d4	10		10.00		105	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.2	70	130			
Surr: Dibromofluoromethane	11		10.00		106	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611976**

14-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr Ground Water

Sample ID **MB-28754**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **28754**	RunNo: **39010**							
Prep Date: **11/18/2016**	Analysis Date: **11/23/2016**	SeqNo: **1220164**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **MB--28754**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **28754**	RunNo: **39010**							
Prep Date: **11/18/2016**	Analysis Date: **11/23/2016**	SeqNo: **1220165**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **LCS-28754**	SampType: **LCS**	TestCode: **SM5210B: BOD**							
Client ID: **LCSW**	Batch ID: **28754**	RunNo: **39010**							
Prep Date: **11/18/2016**	Analysis Date: **11/23/2016**	SeqNo: **1220166**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	150	2.0	198.0	0	77.5	59.3	123			

Sample ID **LCSD-28754**	SampType: **LCSD**	TestCode: **SM5210B: BOD**							
Client ID: **LCSS02**	Batch ID: **28754**	RunNo: **39010**							
Prep Date: **11/18/2016**	Analysis Date: **11/23/2016**	SeqNo: **1220167**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	170	2.0	198.0	0	84.8	59.3	123	9.02	29.9	

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611976**

14-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr Ground Water

Sample ID **MB-28797**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **28797**	RunNo: **38928**
Prep Date: **11/21/2016**	Analysis Date: **11/22/2016**	SeqNo: **1216558** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID **LCS-28797**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **28797**	RunNo: **38928**
Prep Date: **11/21/2016**	Analysis Date: **11/22/2016**	SeqNo: **1216559** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1611976** RcptNo: **1**

Received by/date: AJ 11/17/16

Logged By: **Ashley Gallegos** 11/17/2016 4:23:00 PM AJ

Completed By: **Ashley Gallegos** 11/17/2016 5:34:32 PM AJ

Reviewed By: AJ/RE 11/18/16 @ 0847

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ✔	No	Not Present
2. Is Chain of Custody complete?	Yes ✔	No	Not Present
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ✔	No	NA
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No	NA
6. Sample(s) in proper container(s)?	Yes ✔	No	
7. Sufficient sample volume for indicated test(s)?	Yes ✔	No	
8. Are samples (except VOA and ONG) properly preserved?	~~Yes ✔~~	No ✔ RE	
9. Was preservative added to bottles?	Yes ✔ RE	~~No ✔~~	NA
10. VOA vials have zero headspace?	Yes ✔	No	No VOA Vials
11. Were any sample containers received broken?	Yes	No ✔	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	# of preserved bottles checked for pH: 5 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ✔	No	Adjusted? Yes
14. Is it clear what analyses were requested?	Yes ✔	No	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by: RE

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?	Yes	No	NA ✔

Person Notified: _____ Date _____

By Whom: _____ Via: eMail Phone Fax In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks: For metals analysis, 1mL HNO_3 was added to 0060. 11/18/16 0845 RE

18. **Cooler Information** Held for 24 hrs prior to analysis

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address: 92 Giant Crossing Road, Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush

Project Name:
2016 4TH QTR - GROUND WATER

Project #:
QUARTERLY SAMPLING

Project Manager:
C. JOHNSON (cheryl.johnson@wnr.com)

Sampler:

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611976	8260B + MTBE	8015D EXTENDED	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	802°B	BOD/COD/TDS	Air Bubbles (Y or N)
11/16/2016	700	H20	FIELD BLANK	3-40ML VOA	HCL	-001	X						
11/16/2016	912	H20	RW-5	MISC	MISC	-002	X	X					
11/16/2016	944	H20	RW-8	MISC	MISC	-003	X	X					
11/16/2016	1210	H20	RW-2	MISC	MISC	-004	X	X					
11/17/2016	1015	H20	EAST LDU	MISC	MISC	-005		X	X	X	X		
11/17/2016	1030	H20	WEST LDU	MISC	MISC	-006		X	X	X	X		
11/17/2016	1045	H20	STP1 to EP-2	MISC	MISC	-007	X	X			X	X	
11/17/2006			TRIP BLANK	MISC	MISC	-008	X	X	~~X~~	~~X~~	X		
									4pp				

Date:	Time:	Relinquished by:	Received by:	Date	Time
11/17/2016	1400			11/17/16	13:57
Date:	Time:	Relinquished by:	Received by:	Date	Time
11/18/16	16:23			11/17/16	1623

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 06, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 4th QTR (MKTF) OrderNo.: 1610E79

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 9 sample(s) on 10/29/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB102816
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 11:05:00 AM
Lab ID: 1610E79-001
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/2/2016 7:00:00 PM	28388
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/2/2016 7:00:00 PM	28388
Surr: DNOP	120	0	77.1-144		%Rec	1	11/2/2016 7:00:00 PM	28388
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/4/2016 4:02:00 PM	G38456
Surr: BFB	86.7	0	66.4-120		%Rec	1	11/4/2016 4:02:00 PM	G38456
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	ND	0.050	0.10		mg/L	1	11/2/2016 11:34:13 PM	R38416
Chloride	ND	0.051	0.50		mg/L	1	11/8/2016 9:17:12 PM	R38550
Bromide	ND	0.044	0.10		mg/L	1	11/2/2016 11:34:13 PM	R38416
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/8/2016 9:17:12 PM	R38550
Sulfate	ND	0.14	0.50		mg/L	1	11/2/2016 11:34:13 PM	R38416
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	11/3/2016 4:07:11 AM	R38416
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	ND	0.0013	0.0020		mg/L	1	11/10/2016 12:39:37 PM	B38611
Cadmium	ND	0.00075	0.0020		mg/L	1	11/10/2016 12:39:37 PM	B38611
Calcium	ND	0.50	1.0		mg/L	1	11/10/2016 12:39:37 PM	B38611
Chromium	ND	0.0018	0.0060		mg/L	1	11/10/2016 12:39:37 PM	B38611
Copper	ND	0.0040	0.0060		mg/L	1	11/10/2016 12:39:37 PM	B38611
Iron	ND	0.020	0.020		mg/L	1	11/10/2016 12:39:37 PM	B38611
Magnesium	ND	0.50	1.0		mg/L	1	11/10/2016 12:39:37 PM	B38611
Manganese	0.0012	0.00032	0.0020	J	mg/L	1	11/10/2016 12:39:37 PM	B38611
Potassium	ND	0.50	1.0		mg/L	1	11/10/2016 12:39:37 PM	B38611
Silver	ND	0.0028	0.0050		mg/L	1	11/18/2016 4:26:17 PM	A38830
Sodium	ND	0.50	1.0		mg/L	1	11/14/2016 1:43:27 PM	B38703
Zinc	ND	0.0028	0.010		mg/L	1	11/10/2016 12:39:37 PM	B38611
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	ND	0.00079	0.0020		mg/L	1	11/23/2016 10:24:13 AM	28799
Cadmium	ND	0.0015	0.0020		mg/L	1	11/18/2016 7:45:01 PM	28635
Chromium	ND	0.0027	0.0060		mg/L	1	11/18/2016 7:45:01 PM	28635
Copper	0.0036	0.0030	0.0060	J	mg/L	1	11/18/2016 7:45:01 PM	28635
Iron	ND	0.020	0.020		mg/L	1	11/18/2016 7:45:01 PM	28635
Manganese	0.00036	0.00027	0.0020	J	mg/L	1	11/18/2016 7:45:01 PM	28635
Silver	ND	0.0015	0.0050		mg/L	1	11/28/2016 6:12:40 PM	28799
Zinc	ND	0.0027	0.010		mg/L	1	11/18/2016 7:45:01 PM	28635
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	ND	0.00014	0.0010		mg/L	1	11/11/2016 7:46:56 PM	D38648

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB102816
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 11:05:00 AM
Lab ID: 1610E79-001
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00017	0.00050		mg/L	1	11/11/2016 7:46:56 PM	D38648
Selenium	ND	0.00021	0.0010		mg/L	1	11/11/2016 7:46:56 PM	D38648
Uranium	ND	0.000051	0.00050		mg/L	1	11/14/2016 5:23:57 PM	B38697
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.00021	0.0010		mg/L	1	11/15/2016 1:30:43 PM	28635
Lead	ND	0.000081	0.00050		mg/L	1	11/15/2016 1:30:43 PM	28635
Selenium	ND	0.00019	0.0010		mg/L	1	11/15/2016 1:30:43 PM	28635
Uranium	ND	0.00017	0.00050		mg/L	1	11/15/2016 1:30:43 PM	28635
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/15/2016 4:38:57 PM	28644
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Acenaphthylene	ND	2.4	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Aniline	ND	2.4	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Anthracene	ND	2.5	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Azobenzene	ND	2.7	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Benzoic acid	10	2.6	20	J	µg/L	1	11/3/2016 8:25:26 PM	28386
Benzyl alcohol	ND	3.0	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Bis(2-ethylhexyl)phthalate	7.1	2.6	10	J	µg/L	1	11/3/2016 8:25:26 PM	28386
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Butyl benzyl phthalate	3.0	2.5	10	J	µg/L	1	11/3/2016 8:25:26 PM	28386
Carbazole	ND	2.3	10		µg/L	1	11/3/2016 8:25:26 PM	28386
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/3/2016 8:25:26 PM	28386
4-Chloroaniline	ND	2.7	10		µg/L	1	11/3/2016 8:25:26 PM	28386
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/3/2016 8:25:26 PM	28386
2-Chlorophenol	ND	2.2	10		µg/L	1	11/3/2016 8:25:26 PM	28386
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Chrysene	ND	2.8	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Di-n-octyl phthalate	8.2	2.0	10	J	µg/L	1	11/3/2016 8:25:26 PM	28386

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
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Lab ID: 1610E79-001
Matrix: AQUEOUS
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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Dibenzofuran	ND	2.5	10		µg/L	1	11/3/2016 8:25:26 PM	28386
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/3/2016 8:25:26 PM	28386
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/3/2016 8:25:26 PM	28386
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/3/2016 8:25:26 PM	28386
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Diethyl phthalate	ND	2.7	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/3/2016 8:25:26 PM	28386
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/3/2016 8:25:26 PM	28386
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/3/2016 8:25:26 PM	28386
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/3/2016 8:25:26 PM	28386
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/3/2016 8:25:26 PM	28386
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/3/2016 8:25:26 PM	28386
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Fluoranthene	ND	2.6	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Fluorene	ND	2.7	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Hexachloroethane	ND	2.4	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Isophorone	ND	2.6	10		µg/L	1	11/3/2016 8:25:26 PM	28386
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/3/2016 8:25:26 PM	28386
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/3/2016 8:25:26 PM	28386
2-Methylphenol	ND	2.5	10		µg/L	1	11/3/2016 8:25:26 PM	28386
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/3/2016 8:25:26 PM	28386
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/3/2016 8:25:26 PM	28386
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/3/2016 8:25:26 PM	28386
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Naphthalene	ND	2.6	10		µg/L	1	11/3/2016 8:25:26 PM	28386
2-Nitroaniline	ND	2.8	10		µg/L	1	11/3/2016 8:25:26 PM	28386
3-Nitroaniline	ND	2.9	10		µg/L	1	11/3/2016 8:25:26 PM	28386
4-Nitroaniline	ND	2.6	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Nitrobenzene	ND	2.8	10		µg/L	1	11/3/2016 8:25:26 PM	28386
2-Nitrophenol	ND	2.4	10		µg/L	1	11/3/2016 8:25:26 PM	28386
4-Nitrophenol	ND	2.6	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Pentachlorophenol	ND	2.3	20		µg/L	1	11/3/2016 8:25:26 PM	28386
Phenanthrene	ND	2.6	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Phenol	ND	2.0	10		µg/L	1	11/3/2016 8:25:26 PM	28386

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	3.1	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Pyridine	ND	2.2	10		µg/L	1	11/3/2016 8:25:26 PM	28386
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/3/2016 8:25:26 PM	28386
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/3/2016 8:25:26 PM	28386
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/3/2016 8:25:26 PM	28386
Surr: 2-Fluorophenol	55.3	0	15-98.1		%Rec	1	11/3/2016 8:25:26 PM	28386
Surr: Phenol-d5	43.4	0	15-80.7		%Rec	1	11/3/2016 8:25:26 PM	28386
Surr: 2,4,6-Tribromophenol	80.1	0	15-112		%Rec	1	11/3/2016 8:25:26 PM	28386
Surr: Nitrobenzene-d5	79.0	0	27.2-90.7		%Rec	1	11/3/2016 8:25:26 PM	28386
Surr: 2-Fluorobiphenyl	61.7	0	23.3-85.6		%Rec	1	11/3/2016 8:25:26 PM	28386
Surr: 4-Terphenyl-d14	63.8	0	27.6-107		%Rec	1	11/3/2016 8:25:26 PM	28386
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Toluene	ND	0.12	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Naphthalene	ND	0.093	2.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Acetone	ND	4.9	10		µg/L	1	11/7/2016 3:22:46 PM	W38511
Bromobenzene	ND	0.098	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Bromoform	ND	0.10	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Bromomethane	ND	0.78	3.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
2-Butanone	ND	0.74	10		µg/L	1	11/7/2016 3:22:46 PM	W38511
Carbon disulfide	ND	0.60	10		µg/L	1	11/7/2016 3:22:46 PM	W38511
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Chloroethane	ND	0.19	2.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Chloroform	ND	0.089	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Chloromethane	ND	0.21	3.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB102816
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 11:05:00 AM
Lab ID: 1610E79-001 **Matrix:** AQUEOUS **Received Date:** 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Dibromomethane	ND	0.12	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
2-Hexanone	ND	0.84	10		µg/L	1	11/7/2016 3:22:46 PM	W38511
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/7/2016 3:22:46 PM	W38511
Methylene Chloride	0.26	0.19	3.0	J	µg/L	1	11/7/2016 3:22:46 PM	W38511
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Styrene	ND	0.11	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/7/2016 3:22:46 PM	W38511
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/7/2016 3:22:46 PM	W38511
Surr: 1,2-Dichloroethane-d4	93.0	0	70-130		%Rec	1	11/7/2016 3:22:46 PM	W38511

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB102816
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 11:05:00 AM
Lab ID: 1610E79-001
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 4-Bromofluorobenzene	96.3	0	70-130		%Rec	1	11/7/2016 3:22:46 PM	W38511
Surr: Dibromofluoromethane	94.4	0	70-130		%Rec	1	11/7/2016 3:22:46 PM	W38511
Surr: Toluene-d8	94.5	0	70-130		%Rec	1	11/7/2016 3:22:46 PM	W38511

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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 11:40:00 AM
Lab ID: 1610E79-002 **Matrix:** AQUEOUS **Received Date:** 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/2/2016 7:21:34 PM	28388
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/2/2016 7:21:34 PM	28388
Surr: DNOP	110	0	77.1-144		%Rec	1	11/2/2016 7:21:34 PM	28388
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/4/2016 4:26:22 PM	G38456
Surr: BFB	85.9	0	66.4-120		%Rec	1	11/4/2016 4:26:22 PM	G38456
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	1.1	0.050	0.10		mg/L	1	11/3/2016 12:23:51 AM	R38416
Chloride	80	1.0	10		mg/L	20	11/8/2016 9:42:02 PM	R38550
Bromide	0.36	0.044	0.10		mg/L	1	11/3/2016 12:23:51 AM	R38416
Phosphorus, Orthophosphate (As P)	0.16	0.076	0.50	JH	mg/L	1	11/8/2016 9:29:37 PM	R38550
Sulfate	560	2.8	10		mg/L	20	11/3/2016 12:36:16 AM	R38416
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	11/3/2016 4:19:36 AM	R38416
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.027	0.0013	0.0020		mg/L	1	11/10/2016 12:43:17 PM	B38611
Cadmium	ND	0.00075	0.0020		mg/L	1	11/10/2016 12:43:17 PM	B38611
Calcium	63	0.50	1.0		mg/L	1	11/10/2016 12:43:17 PM	B38611
Chromium	ND	0.0018	0.0060		mg/L	1	11/10/2016 12:43:17 PM	B38611
Copper	ND	0.0040	0.0060		mg/L	1	11/10/2016 12:43:17 PM	B38611
Iron	ND	0.020	0.020		mg/L	1	11/10/2016 12:43:17 PM	B38611
Magnesium	8.7	0.50	1.0		mg/L	1	11/10/2016 12:43:17 PM	B38611
Manganese	0.39	0.00032	0.0020	*	mg/L	1	11/10/2016 12:43:17 PM	B38611
Potassium	ND	0.50	1.0		mg/L	1	11/10/2016 12:43:17 PM	B38611
Silver	ND	0.0028	0.0050		mg/L	1	11/18/2016 4:39:47 PM	A38830
Sodium	510	5.0	10		mg/L	10	11/14/2016 1:47:09 PM	B38703
Zinc	0.013	0.0028	0.010		mg/L	1	11/14/2016 1:45:14 PM	B38703
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.10	0.00079	0.0020		mg/L	1	11/23/2016 10:28:07 AM	28799
Cadmium	ND	0.0015	0.0020		mg/L	1	11/19/2016 1:23:23 PM	28635
Chromium	ND	0.0027	0.0060		mg/L	1	11/19/2016 1:23:23 PM	28635
Copper	0.0039	0.0030	0.0060	J	mg/L	1	11/19/2016 1:23:23 PM	28635
Iron	1.6	0.10	0.10	*	mg/L	5	11/28/2016 6:25:15 PM	28799
Manganese	0.47	0.00027	0.0020	*	mg/L	1	11/19/2016 1:23:23 PM	28635
Silver	ND	0.0015	0.0050		mg/L	1	11/19/2016 1:23:23 PM	28635
Zinc	0.0050	0.0027	0.010	J	mg/L	1	11/19/2016 1:23:23 PM	28635
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0016	0.00014	0.0010		mg/L	1	11/11/2016 7:50:00 PM	D38648

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 11:40:00 AM
Lab ID: 1610E79-002
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00017	0.00050		mg/L	1	11/11/2016 7:50:00 PM	D38648
Selenium	0.0026	0.0011	0.0050	J	mg/L	5	11/15/2016 3:57:26 PM	A38728
Uranium	0.013	0.000051	0.00050		mg/L	1	11/14/2016 5:29:06 PM	B38697
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0018	0.00021	0.0010		mg/L	1	11/15/2016 1:33:44 PM	28635
Lead	0.0020	0.000081	0.00050		mg/L	1	11/15/2016 1:33:44 PM	28635
Selenium	0.0020	0.00094	0.0050	J	mg/L	5	11/15/2016 2:19:23 PM	28635
Uranium	0.013	0.00017	0.00050		mg/L	1	11/15/2016 1:33:44 PM	28635
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/15/2016 4:40:54 PM	28644
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Acenaphthylene	ND	2.4	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Aniline	ND	2.4	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Anthracene	ND	2.5	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Azobenzene	ND	2.7	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Benzoic acid	15	2.6	20	J	µg/L	1	11/3/2016 8:53:09 PM	28386
Benzyl alcohol	ND	3.0	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Bis(2-ethylhexyl)phthalate	7.0	2.6	10	J	µg/L	1	11/3/2016 8:53:09 PM	28386
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Carbazole	ND	2.3	10		µg/L	1	11/3/2016 8:53:09 PM	28386
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/3/2016 8:53:09 PM	28386
4-Chloroaniline	ND	2.7	10		µg/L	1	11/3/2016 8:53:09 PM	28386
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/3/2016 8:53:09 PM	28386
2-Chlorophenol	ND	2.2	10		µg/L	1	11/3/2016 8:53:09 PM	28386
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Chrysene	ND	2.8	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Di-n-octyl phthalate	6.8	2.0	10	J	µg/L	1	11/3/2016 8:53:09 PM	28386

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 11:40:00 AM
Lab ID: 1610E79-002 **Matrix:** AQUEOUS **Received Date:** 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Dibenzofuran	ND	2.5	10		µg/L	1	11/3/2016 8:53:09 PM	28386
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/3/2016 8:53:09 PM	28386
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/3/2016 8:53:09 PM	28386
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/3/2016 8:53:09 PM	28386
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Diethyl phthalate	ND	2.7	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/3/2016 8:53:09 PM	28386
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/3/2016 8:53:09 PM	28386
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/3/2016 8:53:09 PM	28386
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/3/2016 8:53:09 PM	28386
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/3/2016 8:53:09 PM	28386
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/3/2016 8:53:09 PM	28386
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Fluoranthene	ND	2.6	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Fluorene	ND	2.7	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Hexachloroethane	ND	2.4	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Isophorone	ND	2.6	10		µg/L	1	11/3/2016 8:53:09 PM	28386
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/3/2016 8:53:09 PM	28386
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/3/2016 8:53:09 PM	28386
2-Methylphenol	ND	2.5	10		µg/L	1	11/3/2016 8:53:09 PM	28386
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/3/2016 8:53:09 PM	28386
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/3/2016 8:53:09 PM	28386
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/3/2016 8:53:09 PM	28386
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Naphthalene	ND	2.6	10		µg/L	1	11/3/2016 8:53:09 PM	28386
2-Nitroaniline	ND	2.8	10		µg/L	1	11/3/2016 8:53:09 PM	28386
3-Nitroaniline	ND	2.9	10		µg/L	1	11/3/2016 8:53:09 PM	28386
4-Nitroaniline	ND	2.6	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Nitrobenzene	ND	2.8	10		µg/L	1	11/3/2016 8:53:09 PM	28386
2-Nitrophenol	ND	2.4	10		µg/L	1	11/3/2016 8:53:09 PM	28386
4-Nitrophenol	ND	2.6	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Pentachlorophenol	ND	2.3	20		µg/L	1	11/3/2016 8:53:09 PM	28386
Phenanthrene	ND	2.6	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Phenol	ND	2.0	10		µg/L	1	11/3/2016 8:53:09 PM	28386

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 11:40:00 AM
Lab ID: 1610E79-002 **Matrix:** AQUEOUS **Received Date:** 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	3.1	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Pyridine	ND	2.2	10		µg/L	1	11/3/2016 8:53:09 PM	28386
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/3/2016 8:53:09 PM	28386
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/3/2016 8:53:09 PM	28386
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/3/2016 8:53:09 PM	28386
Surr: 2-Fluorophenol	38.1	0	15-98.1		%Rec	1	11/3/2016 8:53:09 PM	28386
Surr: Phenol-d5	31.3	0	15-80.7		%Rec	1	11/3/2016 8:53:09 PM	28386
Surr: 2,4,6-Tribromophenol	81.2	0	15-112		%Rec	1	11/3/2016 8:53:09 PM	28386
Surr: Nitrobenzene-d5	62.7	0	27.2-90.7		%Rec	1	11/3/2016 8:53:09 PM	28386
Surr: 2-Fluorobiphenyl	57.8	0	23.3-85.6		%Rec	1	11/3/2016 8:53:09 PM	28386
Surr: 4-Terphenyl-d14	71.2	0	27.6-107		%Rec	1	11/3/2016 8:53:09 PM	28386
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Toluene	ND	0.12	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Methyl tert-butyl ether (MTBE)	5.0	0.21	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Naphthalene	ND	0.093	2.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Acetone	ND	4.9	10		µg/L	1	11/7/2016 3:51:33 PM	W38511
Bromobenzene	ND	0.098	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Bromoform	ND	0.10	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Bromomethane	ND	0.78	3.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
2-Butanone	ND	0.74	10		µg/L	1	11/7/2016 3:51:33 PM	W38511
Carbon disulfide	ND	0.60	10		µg/L	1	11/7/2016 3:51:33 PM	W38511
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Chloroethane	ND	0.19	2.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Chloroform	ND	0.089	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Chloromethane	ND	0.21	3.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 11:40:00 AM
Lab ID: 1610E79-002 **Matrix:** AQUEOUS **Received Date:** 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Dibromomethane	ND	0.12	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
2-Hexanone	ND	0.84	10		µg/L	1	11/7/2016 3:51:33 PM	W38511
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/7/2016 3:51:33 PM	W38511
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Styrene	ND	0.11	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/7/2016 3:51:33 PM	W38511
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/7/2016 3:51:33 PM	W38511
Surr: 1,2-Dichloroethane-d4	96.6	0	70-130		%Rec	1	11/7/2016 3:51:33 PM	W38511

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-29
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 11:40:00 AM
Lab ID: 1610E79-002
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 4-Bromofluorobenzene	92.5	0	70-130		%Rec	1	11/7/2016 3:51:33 PM	W38511
Surr: Dibromofluoromethane	96.1	0	70-130		%Rec	1	11/7/2016 3:51:33 PM	W38511
Surr: Toluene-d8	93.7	0	70-130		%Rec	1	11/7/2016 3:51:33 PM	W38511

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 12:55:00 PM
Lab ID: 1610E79-003
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/2/2016 7:43:23 PM	28388
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/2/2016 7:43:23 PM	28388
Surr: DNOP	113	0	77.1-144		%Rec	1	11/2/2016 7:43:23 PM	28388
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.034	0.025	0.050	J	mg/L	1	11/4/2016 4:50:39 PM	G38456
Surr: BFB	87.1	0	66.4-120		%Rec	1	11/4/2016 4:50:39 PM	G38456
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.94	0.050	0.10		mg/L	1	11/3/2016 1:13:29 AM	R38416
Chloride	2200	10	100		mg/L	200	11/8/2016 10:06:51 PM	R38550
Bromide	0.76	0.044	0.10		mg/L	1	11/3/2016 1:13:29 AM	R38416
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/8/2016 9:54:26 PM	R38550
Sulfate	410	2.8	10		mg/L	20	11/3/2016 1:25:53 AM	R38416
Nitrate+Nitrite as N	1.4	0.92	2.0	J	mg/L	10	11/11/2016 11:34:35 AM	R38643
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.065	0.0013	0.0020		mg/L	1	11/10/2016 12:54:32 PM	B38611
Cadmium	ND	0.00075	0.0020		mg/L	1	11/10/2016 12:54:32 PM	B38611
Calcium	170	2.5	5.0		mg/L	5	11/10/2016 12:56:30 PM	B38611
Chromium	ND	0.0018	0.0060		mg/L	1	11/10/2016 12:54:32 PM	B38611
Copper	ND	0.0040	0.0060		mg/L	1	11/10/2016 12:54:32 PM	B38611
Iron	0.039	0.020	0.020		mg/L	1	11/10/2016 12:54:32 PM	B38611
Magnesium	27	0.50	1.0		mg/L	1	11/10/2016 12:54:32 PM	B38611
Manganese	0.085	0.00032	0.0020	*	mg/L	1	11/10/2016 12:54:32 PM	B38611
Potassium	11	0.50	1.0		mg/L	1	11/10/2016 12:54:32 PM	B38611
Silver	ND	0.0028	0.0050		mg/L	1	11/18/2016 4:41:11 PM	A38830
Sodium	1900	25	50		mg/L	50	11/14/2016 1:51:07 PM	B38703
Zinc	ND	0.0028	0.010		mg/L	1	11/10/2016 12:54:32 PM	B38611
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.089	0.00079	0.0020		mg/L	1	11/23/2016 10:29:20 AM	28799
Cadmium	ND	0.0015	0.0020		mg/L	1	11/19/2016 1:25:04 PM	28635
Chromium	ND	0.0027	0.0060		mg/L	1	11/19/2016 1:25:04 PM	28635
Copper	ND	0.0030	0.0060		mg/L	1	11/19/2016 1:25:04 PM	28635
Iron	1.5	0.10	0.10	*	mg/L	5	11/28/2016 6:27:12 PM	28799
Manganese	0.24	0.00027	0.0020	*	mg/L	1	11/19/2016 1:25:04 PM	28635
Silver	ND	0.0015	0.0050		mg/L	1	11/19/2016 1:25:04 PM	28635
Zinc	0.0095	0.0027	0.010	J	mg/L	1	11/19/2016 1:25:04 PM	28635
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0033	0.00069	0.0050	J	mg/L	5	11/15/2016 4:00:29 PM	A38728

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 12:55:00 PM
Lab ID: 1610E79-003
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00084	0.0025		mg/L	5	11/14/2016 5:39:22 PM	B38697
Selenium	0.0095	0.0021	0.010	J	mg/L	10	11/15/2016 4:03:33 PM	A38728
Uranium	0.059	0.00026	0.0025	*	mg/L	5	11/14/2016 5:39:22 PM	B38697
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0028	0.0011	0.0050	J	mg/L	5	11/15/2016 2:22:23 PM	28635
Lead	0.0022	0.00041	0.0025	J	mg/L	5	11/15/2016 2:22:23 PM	28635
Selenium	0.0088	0.00094	0.0050		mg/L	5	11/15/2016 2:22:23 PM	28635
Uranium	0.063	0.00087	0.0025	*	mg/L	5	11/15/2016 2:22:23 PM	28635
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/15/2016 4:42:53 PM	28644
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Acenaphthylene	ND	2.4	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Aniline	ND	2.4	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Anthracene	ND	2.5	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Azobenzene	ND	2.7	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Benzoic acid	8.4	2.6	20	J	µg/L	1	11/3/2016 9:20:50 PM	28386
Benzyl alcohol	ND	3.0	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Bis(2-ethylhexyl)phthalate	6.9	2.6	10	J	µg/L	1	11/3/2016 9:20:50 PM	28386
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Butyl benzyl phthalate	2.7	2.5	10	J	µg/L	1	11/3/2016 9:20:50 PM	28386
Carbazole	ND	2.3	10		µg/L	1	11/3/2016 9:20:50 PM	28386
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/3/2016 9:20:50 PM	28386
4-Chloroaniline	ND	2.7	10		µg/L	1	11/3/2016 9:20:50 PM	28386
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/3/2016 9:20:50 PM	28386
2-Chlorophenol	ND	2.2	10		µg/L	1	11/3/2016 9:20:50 PM	28386
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Chrysene	ND	2.8	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Di-n-octyl phthalate	6.7	2.0	10	J	µg/L	1	11/3/2016 9:20:50 PM	28386

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Client Sample ID: MKTF-27
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 12:55:00 PM
Lab ID: 1610E79-003 **Matrix:** AQUEOUS **Received Date:** 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Dibenzofuran	ND	2.5	10		µg/L	1	11/3/2016 9:20:50 PM	28386
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/3/2016 9:20:50 PM	28386
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/3/2016 9:20:50 PM	28386
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/3/2016 9:20:50 PM	28386
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Diethyl phthalate	ND	2.7	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/3/2016 9:20:50 PM	28386
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/3/2016 9:20:50 PM	28386
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/3/2016 9:20:50 PM	28386
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/3/2016 9:20:50 PM	28386
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/3/2016 9:20:50 PM	28386
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/3/2016 9:20:50 PM	28386
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Fluoranthene	ND	2.6	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Fluorene	ND	2.7	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Hexachloroethane	ND	2.4	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Isophorone	ND	2.6	10		µg/L	1	11/3/2016 9:20:50 PM	28386
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/3/2016 9:20:50 PM	28386
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/3/2016 9:20:50 PM	28386
2-Methylphenol	ND	2.5	10		µg/L	1	11/3/2016 9:20:50 PM	28386
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/3/2016 9:20:50 PM	28386
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/3/2016 9:20:50 PM	28386
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/3/2016 9:20:50 PM	28386
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Naphthalene	ND	2.6	10		µg/L	1	11/3/2016 9:20:50 PM	28386
2-Nitroaniline	ND	2.8	10		µg/L	1	11/3/2016 9:20:50 PM	28386
3-Nitroaniline	ND	2.9	10		µg/L	1	11/3/2016 9:20:50 PM	28386
4-Nitroaniline	ND	2.6	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Nitrobenzene	ND	2.8	10		µg/L	1	11/3/2016 9:20:50 PM	28386
2-Nitrophenol	ND	2.4	10		µg/L	1	11/3/2016 9:20:50 PM	28386
4-Nitrophenol	ND	2.6	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Pentachlorophenol	ND	2.3	20		µg/L	1	11/3/2016 9:20:50 PM	28386
Phenanthrene	ND	2.6	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Phenol	ND	2.0	10		µg/L	1	11/3/2016 9:20:50 PM	28386

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 12:55:00 PM
Lab ID: 1610E79-003 **Matrix:** AQUEOUS **Received Date:** 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	3.1	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Pyridine	ND	2.2	10		µg/L	1	11/3/2016 9:20:50 PM	28386
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/3/2016 9:20:50 PM	28386
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/3/2016 9:20:50 PM	28386
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/3/2016 9:20:50 PM	28386
Surr: 2-Fluorophenol	17.6	0	15-98.1		%Rec	1	11/3/2016 9:20:50 PM	28386
Surr: Phenol-d5	16.8	0	15-80.7		%Rec	1	11/3/2016 9:20:50 PM	28386
Surr: 2,4,6-Tribromophenol	32.0	0	15-112		%Rec	1	11/3/2016 9:20:50 PM	28386
Surr: Nitrobenzene-d5	47.4	0	27.2-90.7		%Rec	1	11/3/2016 9:20:50 PM	28386
Surr: 2-Fluorobiphenyl	38.1	0	23.3-85.6		%Rec	1	11/3/2016 9:20:50 PM	28386
Surr: 4-Terphenyl-d14	29.1	0	27.6-107		%Rec	1	11/3/2016 9:20:50 PM	28386
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Toluene	ND	0.12	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Methyl tert-butyl ether (MTBE)	21	0.21	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
1,2-Dichloroethane (EDC)	0.57	0.12	1.0	J	µg/L	1	11/7/2016 4:20:06 PM	W38511
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Naphthalene	ND	0.093	2.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Acetone	ND	4.9	10		µg/L	1	11/7/2016 4:20:06 PM	W38511
Bromobenzene	ND	0.098	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Bromoform	ND	0.10	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Bromomethane	ND	0.78	3.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
2-Butanone	ND	0.74	10		µg/L	1	11/7/2016 4:20:06 PM	W38511
Carbon disulfide	ND	0.60	10		µg/L	1	11/7/2016 4:20:06 PM	W38511
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Chloroethane	ND	0.19	2.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Chloroform	ND	0.089	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Chloromethane	ND	0.21	3.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
cis-1,2-DCE	0.19	0.12	1.0	J	µg/L	1	11/7/2016 4:20:06 PM	W38511
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 12:55:00 PM
Lab ID: 1610E79-003 **Matrix:** AQUEOUS **Received Date:** 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Dibromomethane	ND	0.12	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
1,1-Dichloroethane	1.8	0.11	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
1,1-Dichloroethene	0.39	0.11	1.0	J	µg/L	1	11/7/2016 4:20:06 PM	W38511
1,2-Dichloropropane	0.24	0.11	1.0	J	µg/L	1	11/7/2016 4:20:06 PM	W38511
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
2-Hexanone	ND	0.84	10		µg/L	1	11/7/2016 4:20:06 PM	W38511
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/7/2016 4:20:06 PM	W38511
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Styrene	ND	0.11	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/7/2016 4:20:06 PM	W38511
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/7/2016 4:20:06 PM	W38511
Surr: 1,2-Dichloroethane-d4	95.3	0	70-130		%Rec	1	11/7/2016 4:20:06 PM	W38511

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-27
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 12:55:00 PM
Lab ID: 1610E79-003
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 4-Bromofluorobenzene	93.7	0	70-130		%Rec	1	11/7/2016 4:20:06 PM	W38511
Surr: Dibromofluoromethane	94.7	0	70-130		%Rec	1	11/7/2016 4:20:06 PM	W38511
Surr: Toluene-d8	95.2	0	70-130		%Rec	1	11/7/2016 4:20:06 PM	W38511

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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 2:15:00 PM
Lab ID: 1610E79-004
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/2/2016 8:05:05 PM	28388
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/2/2016 8:05:05 PM	28388
Surr: DNOP	117	0	77.1-144		%Rec	1	11/2/2016 8:05:05 PM	28388
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/4/2016 5:14:56 PM	G38456
Surr: BFB	85.6	0	66.4-120		%Rec	1	11/4/2016 5:14:56 PM	G38456
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	1.3	0.050	0.10		mg/L	1	11/3/2016 1:38:17 AM	R38416
Chloride	370	2.5	25		mg/L	50	11/8/2016 10:31:39 PM	R38550
Bromide	2.2	0.044	0.10		mg/L	1	11/3/2016 1:38:17 AM	R38416
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/8/2016 10:19:15 PM	R38550
Sulfate	130	2.8	10		mg/L	20	11/3/2016 1:50:42 AM	R38416
Nitrate+Nitrite as N	1.1	0.46	1.0		mg/L	5	11/3/2016 4:44:26 AM	R38416
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.061	0.0013	0.0020		mg/L	1	11/10/2016 12:58:35 PM	B38611
Cadmium	ND	0.00075	0.0020		mg/L	1	11/10/2016 12:58:35 PM	B38611
Calcium	39	0.50	1.0		mg/L	1	11/10/2016 12:58:35 PM	B38611
Chromium	ND	0.0018	0.0060		mg/L	1	11/10/2016 12:58:35 PM	B38611
Copper	ND	0.0040	0.0060		mg/L	1	11/10/2016 12:58:35 PM	B38611
Iron	0.049	0.020	0.020		mg/L	1	11/10/2016 12:58:35 PM	B38611
Magnesium	7.3	0.50	1.0		mg/L	1	11/10/2016 12:58:35 PM	B38611
Manganese	0.021	0.00032	0.0020		mg/L	1	11/10/2016 12:58:35 PM	B38611
Potassium	2.5	0.50	1.0		mg/L	1	11/10/2016 12:58:35 PM	B38611
Silver	ND	0.0028	0.0050		mg/L	1	11/18/2016 4:42:36 PM	B38830
Sodium	570	5.0	10		mg/L	10	11/14/2016 1:54:47 PM	B38703
Zinc	ND	0.0028	0.010		mg/L	1	11/10/2016 12:58:35 PM	B38611
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.13	0.00079	0.0020		mg/L	1	11/23/2016 10:30:33 AM	28799
Cadmium	ND	0.0015	0.0020		mg/L	1	11/19/2016 1:27:03 PM	28635
Chromium	ND	0.0027	0.0060		mg/L	1	11/19/2016 1:27:03 PM	28635
Copper	0.0031	0.0030	0.0060	J	mg/L	1	11/19/2016 1:27:03 PM	28635
Iron	3.3	0.10	0.10	*	mg/L	5	11/28/2016 6:29:23 PM	28799
Manganese	0.18	0.00027	0.0020	*	mg/L	1	11/19/2016 1:27:03 PM	28635
Silver	ND	0.0015	0.0050		mg/L	1	11/19/2016 1:27:03 PM	28635
Zinc	0.015	0.0027	0.010		mg/L	1	11/19/2016 1:27:03 PM	28635
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0047	0.00069	0.0050	J	mg/L	5	11/15/2016 4:06:36 PM	A38728

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 2:15:00 PM
Lab ID: 1610E79-004
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.00022	0.00017	0.00050	J	mg/L	1	11/11/2016 7:56:06 PM	D38648
Selenium	0.012	0.0042	0.020	J	mg/L	20	11/15/2016 4:09:39 PM	A38728
Uranium	0.16	0.00051	0.0050	*	mg/L	10	11/14/2016 6:05:07 PM	B38697
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0044	0.0042	0.020	J	mg/L	20	11/15/2016 2:31:24 PM	28635
Lead	0.0056	0.000081	0.00050		mg/L	1	11/15/2016 1:45:50 PM	28635
Selenium	0.013	0.0037	0.020	J	mg/L	20	11/15/2016 2:31:24 PM	28635
Uranium	0.15	0.0035	0.010	*	mg/L	20	11/15/2016 2:31:24 PM	28635
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/15/2016 4:51:06 PM	28644
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Acenaphthylene	ND	2.4	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Aniline	ND	2.4	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Anthracene	ND	2.5	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Azobenzene	ND	2.7	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Benzoic acid	13	2.6	20	J	µg/L	1	11/3/2016 9:48:28 PM	28386
Benzyl alcohol	ND	3.0	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Bis(2-ethylhexyl)phthalate	9.0	2.6	10	J	µg/L	1	11/3/2016 9:48:28 PM	28386
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Butyl benzyl phthalate	2.7	2.5	10	J	µg/L	1	11/3/2016 9:48:28 PM	28386
Carbazole	ND	2.3	10		µg/L	1	11/3/2016 9:48:28 PM	28386
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/3/2016 9:48:28 PM	28386
4-Chloroaniline	ND	2.7	10		µg/L	1	11/3/2016 9:48:28 PM	28386
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/3/2016 9:48:28 PM	28386
2-Chlorophenol	ND	2.2	10		µg/L	1	11/3/2016 9:48:28 PM	28386
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Chrysene	ND	2.8	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Di-n-octyl phthalate	6.8	2.0	10	J	µg/L	1	11/3/2016 9:48:28 PM	28386

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 2:15:00 PM
Lab ID: 1610E79-004 **Matrix:** AQUEOUS **Received Date:** 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Dibenzofuran	ND	2.5	10		µg/L	1	11/3/2016 9:48:28 PM	28386
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/3/2016 9:48:28 PM	28386
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/3/2016 9:48:28 PM	28386
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/3/2016 9:48:28 PM	28386
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Diethyl phthalate	ND	2.7	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/3/2016 9:48:28 PM	28386
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/3/2016 9:48:28 PM	28386
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/3/2016 9:48:28 PM	28386
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/3/2016 9:48:28 PM	28386
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/3/2016 9:48:28 PM	28386
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/3/2016 9:48:28 PM	28386
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Fluoranthene	ND	2.6	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Fluorene	ND	2.7	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Hexachloroethane	ND	2.4	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Isophorone	ND	2.6	10		µg/L	1	11/3/2016 9:48:28 PM	28386
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/3/2016 9:48:28 PM	28386
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/3/2016 9:48:28 PM	28386
2-Methylphenol	ND	2.5	10		µg/L	1	11/3/2016 9:48:28 PM	28386
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/3/2016 9:48:28 PM	28386
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/3/2016 9:48:28 PM	28386
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/3/2016 9:48:28 PM	28386
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Naphthalene	ND	2.6	10		µg/L	1	11/3/2016 9:48:28 PM	28386
2-Nitroaniline	ND	2.8	10		µg/L	1	11/3/2016 9:48:28 PM	28386
3-Nitroaniline	ND	2.9	10		µg/L	1	11/3/2016 9:48:28 PM	28386
4-Nitroaniline	ND	2.6	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Nitrobenzene	ND	2.8	10		µg/L	1	11/3/2016 9:48:28 PM	28386
2-Nitrophenol	ND	2.4	10		µg/L	1	11/3/2016 9:48:28 PM	28386
4-Nitrophenol	ND	2.6	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Pentachlorophenol	ND	2.3	20		µg/L	1	11/3/2016 9:48:28 PM	28386
Phenanthrene	ND	2.6	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Phenol	ND	2.0	10		µg/L	1	11/3/2016 9:48:28 PM	28386

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 2:15:00 PM
Lab ID: 1610E79-004 **Matrix:** AQUEOUS **Received Date:** 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	3.1	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Pyridine	ND	2.2	10		µg/L	1	11/3/2016 9:48:28 PM	28386
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/3/2016 9:48:28 PM	28386
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/3/2016 9:48:28 PM	28386
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/3/2016 9:48:28 PM	28386
Surr: 2-Fluorophenol	21.4	0	15-98.1		%Rec	1	11/3/2016 9:48:28 PM	28386
Surr: Phenol-d5	19.4	0	15-80.7		%Rec	1	11/3/2016 9:48:28 PM	28386
Surr: 2,4,6-Tribromophenol	32.7	0	15-112		%Rec	1	11/3/2016 9:48:28 PM	28386
Surr: Nitrobenzene-d5	56.8	0	27.2-90.7		%Rec	1	11/3/2016 9:48:28 PM	28386
Surr: 2-Fluorobiphenyl	42.6	0	23.3-85.6		%Rec	1	11/3/2016 9:48:28 PM	28386
Surr: 4-Terphenyl-d14	29.8	0	27.6-107		%Rec	1	11/3/2016 9:48:28 PM	28386
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Toluene	ND	0.12	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Methyl tert-butyl ether (MTBE)	5.2	0.21	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Naphthalene	ND	0.093	2.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Acetone	ND	4.9	10		µg/L	1	11/7/2016 4:48:45 PM	W38511
Bromobenzene	ND	0.098	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Bromoform	ND	0.10	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Bromomethane	ND	0.78	3.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
2-Butanone	ND	0.74	10		µg/L	1	11/7/2016 4:48:45 PM	W38511
Carbon disulfide	ND	0.60	10		µg/L	1	11/7/2016 4:48:45 PM	W38511
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Chloroethane	ND	0.19	2.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Chloroform	ND	0.089	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Chloromethane	ND	0.21	3.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 2:15:00 PM
Lab ID: 1610E79-004 **Matrix:** AQUEOUS **Received Date:** 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Dibromomethane	ND	0.12	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
2-Hexanone	ND	0.84	10		µg/L	1	11/7/2016 4:48:45 PM	W38511
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/7/2016 4:48:45 PM	W38511
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Styrene	ND	0.11	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/7/2016 4:48:45 PM	W38511
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/7/2016 4:48:45 PM	W38511
Surr: 1,2-Dichloroethane-d4	97.0	0	70-130		%Rec	1	11/7/2016 4:48:45 PM	W38511

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-28
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 2:15:00 PM
Lab ID: 1610E79-004
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 4-Bromofluorobenzene	93.9	0	70-130		%Rec	1	11/7/2016 4:48:45 PM	W38511
Surr: Dibromofluoromethane	97.2	0	70-130		%Rec	1	11/7/2016 4:48:45 PM	W38511
Surr: Toluene-d8	96.1	0	70-130		%Rec	1	11/7/2016 4:48:45 PM	W38511

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 3:00:00 PM
Lab ID: 1610E79-005 **Matrix:** AQUEOUS **Received Date:** 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	0.017	0.0033	0.010		µg/L	1	11/2/2016 7:36:24 PM	28411
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	1.1	0.69	1.0		mg/L	1	11/2/2016 8:26:54 PM	28388
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/2/2016 8:26:54 PM	28388
Surr: DNOP	114	0	77.1-144		%Rec	1	11/2/2016 8:26:54 PM	28388
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	30	1.3	2.5		mg/L	50	11/8/2016 9:50:24 AM	G38456
Surr: BFB	100	0	66.4-120		%Rec	50	11/8/2016 9:50:24 AM	G38456
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.078	0.050	0.10	J	mg/L	1	11/3/2016 2:03:07 AM	R38416
Chloride	440	2.5	25		mg/L	50	11/8/2016 11:21:18 PM	R38550
Bromide	0.36	0.044	0.10		mg/L	1	11/3/2016 2:03:07 AM	R38416
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/8/2016 10:44:04 PM	R38550
Sulfate	46	0.14	0.50		mg/L	1	11/3/2016 2:03:07 AM	R38416
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	11/3/2016 4:56:51 AM	R38416
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.23	0.0013	0.0020		mg/L	1	11/10/2016 1:02:30 PM	B38611
Cadmium	ND	0.00075	0.0020		mg/L	1	11/10/2016 1:02:30 PM	B38611
Calcium	110	2.5	5.0		mg/L	5	11/10/2016 1:04:29 PM	B38611
Chromium	ND	0.0018	0.0060		mg/L	1	11/10/2016 1:02:30 PM	B38611
Copper	ND	0.0040	0.0060		mg/L	1	11/10/2016 1:02:30 PM	B38611
Iron	0.069	0.020	0.020		mg/L	1	11/10/2016 1:02:30 PM	B38611
Magnesium	19	0.50	1.0		mg/L	1	11/10/2016 1:02:30 PM	B38611
Manganese	2.0	0.0016	0.010	*	mg/L	5	11/10/2016 1:04:29 PM	B38611
Potassium	2.4	0.50	1.0		mg/L	1	11/10/2016 1:02:30 PM	B38611
Silver	ND	0.0028	0.0050		mg/L	1	11/18/2016 4:43:59 PM	B38830
Sodium	520	5.0	10		mg/L	10	11/14/2016 2:04:15 PM	B38703
Zinc	ND	0.0028	0.010		mg/L	1	11/14/2016 2:02:20 PM	B38703
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.28	0.00079	0.0020		mg/L	1	11/23/2016 10:31:46 AM	28799
Cadmium	ND	0.0015	0.0020		mg/L	1	11/19/2016 1:34:53 PM	28635
Chromium	ND	0.0027	0.0060		mg/L	1	11/19/2016 1:34:53 PM	28635
Copper	ND	0.0030	0.0060		mg/L	1	11/19/2016 1:34:53 PM	28635
Iron	1.3	0.10	0.10	*	mg/L	5	11/28/2016 6:31:28 PM	28799
Manganese	1.8	0.0014	0.010	*	mg/L	5	11/28/2016 6:31:28 PM	28799
Silver	ND	0.0015	0.0050		mg/L	1	11/19/2016 1:34:53 PM	28635
Zinc	0.0065	0.0027	0.010	J	mg/L	1	11/19/2016 1:34:53 PM	28635

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 3:00:00 PM
Lab ID: 1610E79-005
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0033	0.00014	0.0010		mg/L	1	11/11/2016 7:59:09 PM	D38648
Lead	0.0012	0.00017	0.00050		mg/L	1	11/11/2016 7:59:09 PM	D38648
Selenium	0.0064	0.00021	0.0010		mg/L	1	11/11/2016 7:59:09 PM	D38648
Uranium	0.017	0.000051	0.00050		mg/L	1	11/14/2016 6:10:15 PM	B38697
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0025	0.0021	0.010	J	mg/L	10	11/15/2016 2:34:25 PM	28635
Lead	0.0043	0.000081	0.00050		mg/L	1	11/15/2016 1:48:51 PM	28635
Selenium	0.0055	0.0019	0.010	J	mg/L	10	11/15/2016 2:34:25 PM	28635
Uranium	0.020	0.00017	0.00050		mg/L	1	11/15/2016 1:48:51 PM	28635
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/15/2016 4:53:06 PM	28644
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Acenaphthylene	ND	2.4	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Aniline	ND	2.4	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Anthracene	ND	2.5	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Azobenzene	ND	2.7	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Benzoic acid	13	2.6	20	J	µg/L	1	11/3/2016 10:16:06 PM	28386
Benzyl alcohol	ND	3.0	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Bis(2-ethylhexyl)phthalate	6.6	2.6	10	J	µg/L	1	11/3/2016 10:16:06 PM	28386
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Butyl benzyl phthalate	2.7	2.5	10	J	µg/L	1	11/3/2016 10:16:06 PM	28386
Carbazole	ND	2.3	10		µg/L	1	11/3/2016 10:16:06 PM	28386
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/3/2016 10:16:06 PM	28386
4-Chloroaniline	ND	2.7	10		µg/L	1	11/3/2016 10:16:06 PM	28386
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/3/2016 10:16:06 PM	28386
2-Chlorophenol	ND	2.2	10		µg/L	1	11/3/2016 10:16:06 PM	28386
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Chrysene	ND	2.8	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/3/2016 10:16:06 PM	28386

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Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	6.9	2.0	10	J	µg/L	1	11/3/2016 10:16:06 PM	28386
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Dibenzofuran	ND	2.5	10		µg/L	1	11/3/2016 10:16:06 PM	28386
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/3/2016 10:16:06 PM	28386
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/3/2016 10:16:06 PM	28386
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/3/2016 10:16:06 PM	28386
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Diethyl phthalate	ND	2.7	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/3/2016 10:16:06 PM	28386
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/3/2016 10:16:06 PM	28386
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/3/2016 10:16:06 PM	28386
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/3/2016 10:16:06 PM	28386
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/3/2016 10:16:06 PM	28386
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/3/2016 10:16:06 PM	28386
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Fluoranthene	ND	2.6	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Fluorene	ND	2.7	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Hexachloroethane	ND	2.4	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Isophorone	ND	2.6	10		µg/L	1	11/3/2016 10:16:06 PM	28386
1-Methylnaphthalene	7.3	2.9	10	J	µg/L	1	11/3/2016 10:16:06 PM	28386
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/3/2016 10:16:06 PM	28386
2-Methylphenol	ND	2.5	10		µg/L	1	11/3/2016 10:16:06 PM	28386
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/3/2016 10:16:06 PM	28386
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/3/2016 10:16:06 PM	28386
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/3/2016 10:16:06 PM	28386
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Naphthalene	5.5	2.6	10	J	µg/L	1	11/3/2016 10:16:06 PM	28386
2-Nitroaniline	ND	2.8	10		µg/L	1	11/3/2016 10:16:06 PM	28386
3-Nitroaniline	ND	2.9	10		µg/L	1	11/3/2016 10:16:06 PM	28386
4-Nitroaniline	ND	2.6	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Nitrobenzene	ND	2.8	10		µg/L	1	11/3/2016 10:16:06 PM	28386
2-Nitrophenol	ND	2.4	10		µg/L	1	11/3/2016 10:16:06 PM	28386
4-Nitrophenol	ND	2.6	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Pentachlorophenol	ND	2.3	20		µg/L	1	11/3/2016 10:16:06 PM	28386
Phenanthrene	ND	2.6	10		µg/L	1	11/3/2016 10:16:06 PM	28386

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-24
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 3:00:00 PM
Lab ID: 1610E79-005 **Matrix:** AQUEOUS **Received Date:** 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	ND	2.0	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Pyrene	ND	3.1	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Pyridine	ND	2.2	10		µg/L	1	11/3/2016 10:16:06 PM	28386
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/3/2016 10:16:06 PM	28386
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/3/2016 10:16:06 PM	28386
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/3/2016 10:16:06 PM	28386
Surr: 2-Fluorophenol	24.2	0	15-98.1		%Rec	1	11/3/2016 10:16:06 PM	28386
Surr: Phenol-d5	21.0	0	15-80.7		%Rec	1	11/3/2016 10:16:06 PM	28386
Surr: 2,4,6-Tribromophenol	42.6	0	15-112		%Rec	1	11/3/2016 10:16:06 PM	28386
Surr: Nitrobenzene-d5	61.4	0	27.2-90.7		%Rec	1	11/3/2016 10:16:06 PM	28386
Surr: 2-Fluorobiphenyl	48.6	0	23.3-85.6		%Rec	1	11/3/2016 10:16:06 PM	28386
Surr: 4-Terphenyl-d14	34.7	0	27.6-107		%Rec	1	11/3/2016 10:16:06 PM	28386
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	6100	19	200		µg/L	200	11/7/2016 5:17:18 PM	W38511
Toluene	25	2.4	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
Ethylbenzene	300	2.2	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
Methyl tert-butyl ether (MTBE)	230	4.2	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
1,2,4-Trimethylbenzene	10	2.2	20	J	µg/L	20	11/7/2016 5:45:50 PM	W38511
1,3,5-Trimethylbenzene	ND	2.3	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
1,2-Dichloroethane (EDC)	7.9	2.3	20	J	µg/L	20	11/7/2016 5:45:50 PM	W38511
1,2-Dibromoethane (EDB)	ND	2.2	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
Naphthalene	ND	1.9	40		µg/L	20	11/7/2016 5:45:50 PM	W38511
1-Methylnaphthalene	5.2	4.1	80	J	µg/L	20	11/7/2016 5:45:50 PM	W38511
2-Methylnaphthalene	ND	3.2	80		µg/L	20	11/7/2016 5:45:50 PM	W38511
Acetone	ND	98	200		µg/L	20	11/7/2016 5:45:50 PM	W38511
Bromobenzene	ND	2.0	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
Bromodichloromethane	ND	2.8	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
Bromoform	ND	2.0	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
Bromomethane	ND	16	60		µg/L	20	11/7/2016 5:45:50 PM	W38511
2-Butanone	ND	15	200		µg/L	20	11/7/2016 5:45:50 PM	W38511
Carbon disulfide	ND	12	200		µg/L	20	11/7/2016 5:45:50 PM	W38511
Carbon Tetrachloride	ND	2.2	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
Chlorobenzene	ND	2.3	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
Chloroethane	ND	3.8	40		µg/L	20	11/7/2016 5:45:50 PM	W38511
Chloroform	ND	1.8	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
Chloromethane	ND	4.3	60		µg/L	20	11/7/2016 5:45:50 PM	W38511
2-Chlorotoluene	ND	8.0	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
4-Chlorotoluene	ND	2.6	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
cis-1,2-DCE	35	2.5	20		µg/L	20	11/7/2016 5:45:50 PM	W38511

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Lab ID: 1610E79-005 **Matrix:** AQUEOUS **Received Date:** 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
cis-1,3-Dichloropropene	ND	2.1	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
1,2-Dibromo-3-chloropropane	ND	4.7	40		µg/L	20	11/7/2016 5:45:50 PM	W38511
Dibromochloromethane	ND	1.7	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
Dibromomethane	ND	2.4	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
1,2-Dichlorobenzene	ND	8.0	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
1,3-Dichlorobenzene	ND	2.9	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
1,4-Dichlorobenzene	ND	2.9	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
Dichlorodifluoromethane	ND	7.1	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
1,1-Dichloroethane	88	2.2	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
1,1-Dichloroethene	45	2.1	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
1,2-Dichloropropane	ND	2.2	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
1,3-Dichloropropane	ND	3.1	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
2,2-Dichloropropane	ND	3.3	40		µg/L	20	11/7/2016 5:45:50 PM	W38511
1,1-Dichloropropene	ND	2.7	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
Hexachlorobutadiene	ND	4.0	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
2-Hexanone	ND	17	200		µg/L	20	11/7/2016 5:45:50 PM	W38511
Isopropylbenzene	39	2.1	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
4-Isopropyltoluene	ND	2.8	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
4-Methyl-2-pentanone	ND	8.6	200		µg/L	20	11/7/2016 5:45:50 PM	W38511
Methylene Chloride	ND	3.7	60		µg/L	20	11/7/2016 5:45:50 PM	W38511
n-Butylbenzene	17	3.2	60	J	µg/L	20	11/7/2016 5:45:50 PM	W38511
n-Propylbenzene	93	2.6	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
sec-Butylbenzene	12	2.5	20	J	µg/L	20	11/7/2016 5:45:50 PM	W38511
Styrene	ND	2.2	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
tert-Butylbenzene	ND	2.3	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
1,1,1,2-Tetrachloroethane	ND	2.2	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
1,1,2,2-Tetrachloroethane	ND	2.6	40		µg/L	20	11/7/2016 5:45:50 PM	W38511
Tetrachloroethene (PCE)	ND	3.0	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
trans-1,2-DCE	ND	8.0	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
trans-1,3-Dichloropropene	ND	2.1	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
1,2,3-Trichlorobenzene	ND	2.3	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
1,2,4-Trichlorobenzene	ND	2.7	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
1,1,1-Trichloroethane	ND	1.8	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
1,1,2-Trichloroethane	ND	2.5	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
Trichloroethene (TCE)	ND	3.5	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
Trichlorofluoromethane	ND	4.1	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
1,2,3-Trichloropropane	ND	4.0	40		µg/L	20	11/7/2016 5:45:50 PM	W38511
Vinyl chloride	ND	3.9	20		µg/L	20	11/7/2016 5:45:50 PM	W38511
Xylenes, Total	15	7.3	30	J	µg/L	20	11/7/2016 5:45:50 PM	W38511

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 1,2-Dichloroethane-d4	86.1	0	70-130		%Rec	20	11/7/2016 5:45:50 PM	W38511
Surr: 4-Bromofluorobenzene	95.0	0	70-130		%Rec	20	11/7/2016 5:45:50 PM	W38511
Surr: Dibromofluoromethane	87.5	0	70-130		%Rec	20	11/7/2016 5:45:50 PM	W38511
Surr: Toluene-d8	95.6	0	70-130		%Rec	20	11/7/2016 5:45:50 PM	W38511

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-02
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 3:30:00 PM
Lab ID: 1610E79-006
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	0.044	0.0033	0.010		µg/L	1	11/2/2016 7:51:29 PM	28411
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	1.4	0.69	1.0		mg/L	1	11/2/2016 8:48:29 PM	28388
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/2/2016 8:48:29 PM	28388
Surr: DNOP	114	0	77.1-144		%Rec	1	11/2/2016 8:48:29 PM	28388
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	6.1	0.25	0.50		mg/L	10	11/4/2016 8:29:55 PM	G38456
Surr: BFB	90.9	0	66.4-120		%Rec	10	11/4/2016 8:29:55 PM	G38456
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	2.7	0.050	0.10		mg/L	1	11/3/2016 2:27:56 AM	R38416
Chloride	380	2.5	25		mg/L	50	11/8/2016 11:46:08 PM	R38550
Bromide	0.32	0.044	0.10		mg/L	1	11/3/2016 2:27:56 AM	R38416
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/8/2016 11:33:43 PM	R38550
Sulfate	40	0.14	0.50		mg/L	1	11/3/2016 2:27:56 AM	R38416
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	11/3/2016 5:09:16 AM	R38416
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.19	0.0013	0.0020		mg/L	1	11/10/2016 1:06:26 PM	B38611
Cadmium	ND	0.00075	0.0020		mg/L	1	11/10/2016 1:06:26 PM	B38611
Calcium	67	0.50	1.0		mg/L	1	11/10/2016 1:06:26 PM	B38611
Chromium	ND	0.0018	0.0060		mg/L	1	11/10/2016 1:06:26 PM	B38611
Copper	ND	0.0040	0.0060		mg/L	1	11/10/2016 1:06:26 PM	B38611
Iron	0.036	0.020	0.020		mg/L	1	11/10/2016 1:06:26 PM	B38611
Magnesium	11	0.50	1.0		mg/L	1	11/10/2016 1:06:26 PM	B38611
Manganese	0.47	0.00032	0.0020	*	mg/L	1	11/10/2016 1:06:26 PM	B38611
Potassium	2.7	0.50	1.0		mg/L	1	11/10/2016 1:06:26 PM	B38611
Silver	ND	0.0028	0.0050		mg/L	1	11/18/2016 4:45:22 PM	B38830
Sodium	620	5.0	10		mg/L	10	11/14/2016 2:08:07 PM	B38703
Zinc	ND	0.0028	0.010		mg/L	1	11/14/2016 2:06:11 PM	B38703
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.22	0.00079	0.0020		mg/L	1	11/28/2016 6:33:28 PM	28799
Cadmium	ND	0.0015	0.0020		mg/L	1	11/19/2016 1:40:13 PM	28635
Chromium	ND	0.0027	0.0060		mg/L	1	11/19/2016 1:40:13 PM	28635
Copper	ND	0.0030	0.0060		mg/L	1	11/19/2016 1:40:13 PM	28635
Iron	1.5	0.10	0.10	*	mg/L	5	11/28/2016 6:43:51 PM	28799
Manganese	0.53	0.00027	0.0020	*	mg/L	1	11/19/2016 1:40:13 PM	28635
Silver	ND	0.0015	0.0050		mg/L	1	11/19/2016 1:40:13 PM	28635
Zinc	0.038	0.0027	0.010		mg/L	1	11/19/2016 1:40:13 PM	28635

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-02
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 3:30:00 PM
Lab ID: 1610E79-006
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0030	0.00014	0.0010		mg/L	1	11/11/2016 8:02:13 PM	D38648
Lead	0.00059	0.00017	0.00050		mg/L	1	11/11/2016 8:02:13 PM	D38648
Selenium	0.0064	0.00021	0.0010		mg/L	1	11/11/2016 8:02:13 PM	D38648
Uranium	0.024	0.00026	0.0025		mg/L	5	11/14/2016 6:15:23 PM	B38697
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0030	0.00021	0.0010		mg/L	1	11/15/2016 1:51:51 PM	28635
Lead	0.0027	0.000081	0.00050		mg/L	1	11/15/2016 1:51:51 PM	28635
Selenium	0.0048	0.00094	0.0050	J	mg/L	5	11/15/2016 2:37:25 PM	28635
Uranium	0.026	0.00087	0.0025		mg/L	5	11/15/2016 2:37:25 PM	28635
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/15/2016 4:55:05 PM	28644
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Acenaphthylene	ND	2.4	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Aniline	ND	2.4	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Anthracene	ND	2.5	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Azobenzene	ND	2.7	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Benzoic acid	ND	2.6	20		µg/L	1	11/3/2016 10:43:42 PM	28386
Benzyl alcohol	ND	3.0	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Bis(2-ethylhexyl)phthalate	7.1	2.6	10	J	µg/L	1	11/3/2016 10:43:42 PM	28386
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Butyl benzyl phthalate	2.7	2.5	10	J	µg/L	1	11/3/2016 10:43:42 PM	28386
Carbazole	ND	2.3	10		µg/L	1	11/3/2016 10:43:42 PM	28386
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/3/2016 10:43:42 PM	28386
4-Chloroaniline	ND	2.7	10		µg/L	1	11/3/2016 10:43:42 PM	28386
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/3/2016 10:43:42 PM	28386
2-Chlorophenol	ND	2.2	10		µg/L	1	11/3/2016 10:43:42 PM	28386
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Chrysene	ND	2.8	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/3/2016 10:43:42 PM	28386

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-02
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 3:30:00 PM
Lab ID: 1610E79-006
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	6.8	2.0	10	J	µg/L	1	11/3/2016 10:43:42 PM	28386
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Dibenzofuran	ND	2.5	10		µg/L	1	11/3/2016 10:43:42 PM	28386
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/3/2016 10:43:42 PM	28386
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/3/2016 10:43:42 PM	28386
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/3/2016 10:43:42 PM	28386
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Diethyl phthalate	ND	2.7	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/3/2016 10:43:42 PM	28386
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/3/2016 10:43:42 PM	28386
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/3/2016 10:43:42 PM	28386
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/3/2016 10:43:42 PM	28386
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/3/2016 10:43:42 PM	28386
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/3/2016 10:43:42 PM	28386
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Fluoranthene	ND	2.6	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Fluorene	ND	2.7	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Hexachloroethane	ND	2.4	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Isophorone	ND	2.6	10		µg/L	1	11/3/2016 10:43:42 PM	28386
1-Methylnaphthalene	6.0	2.9	10	J	µg/L	1	11/3/2016 10:43:42 PM	28386
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/3/2016 10:43:42 PM	28386
2-Methylphenol	ND	2.5	10		µg/L	1	11/3/2016 10:43:42 PM	28386
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/3/2016 10:43:42 PM	28386
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/3/2016 10:43:42 PM	28386
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/3/2016 10:43:42 PM	28386
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Naphthalene	4.6	2.6	10	J	µg/L	1	11/3/2016 10:43:42 PM	28386
2-Nitroaniline	ND	2.8	10		µg/L	1	11/3/2016 10:43:42 PM	28386
3-Nitroaniline	ND	2.9	10		µg/L	1	11/3/2016 10:43:42 PM	28386
4-Nitroaniline	ND	2.6	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Nitrobenzene	ND	2.8	10		µg/L	1	11/3/2016 10:43:42 PM	28386
2-Nitrophenol	ND	2.4	10		µg/L	1	11/3/2016 10:43:42 PM	28386
4-Nitrophenol	ND	2.6	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Pentachlorophenol	ND	2.3	20		µg/L	1	11/3/2016 10:43:42 PM	28386
Phenanthrene	ND	2.6	10		µg/L	1	11/3/2016 10:43:42 PM	28386

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-02
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 3:30:00 PM
Lab ID: 1610E79-006 **Matrix:** AQUEOUS **Received Date:** 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	ND	2.0	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Pyrene	ND	3.1	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Pyridine	ND	2.2	10		µg/L	1	11/3/2016 10:43:42 PM	28386
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/3/2016 10:43:42 PM	28386
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/3/2016 10:43:42 PM	28386
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/3/2016 10:43:42 PM	28386
Surr: 2-Fluorophenol	22.6	0	15-98.1		%Rec	1	11/3/2016 10:43:42 PM	28386
Surr: Phenol-d5	19.9	0	15-80.7		%Rec	1	11/3/2016 10:43:42 PM	28386
Surr: 2,4,6-Tribromophenol	33.7	0	15-112		%Rec	1	11/3/2016 10:43:42 PM	28386
Surr: Nitrobenzene-d5	52.9	0	27.2-90.7		%Rec	1	11/3/2016 10:43:42 PM	28386
Surr: 2-Fluorobiphenyl	39.6	0	23.3-85.6		%Rec	1	11/3/2016 10:43:42 PM	28386
Surr: 4-Terphenyl-d14	26.1	0	27.6-107	S	%Rec	1	11/3/2016 10:43:42 PM	28386
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	1600	9.6	100		µg/L	100	11/7/2016 6:14:39 PM	W38511
Toluene	20	1.2	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
Ethylbenzene	95	1.1	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
Methyl tert-butyl ether (MTBE)	150	2.1	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
1,2,4-Trimethylbenzene	20	1.1	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
1,3,5-Trimethylbenzene	ND	1.2	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
1,2-Dichloroethane (EDC)	7.2	1.2	10	J	µg/L	10	11/7/2016 6:43:12 PM	W38511
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
Naphthalene	1.6	0.93	20	J	µg/L	10	11/7/2016 6:43:12 PM	W38511
1-Methylnaphthalene	4.5	2.0	40	J	µg/L	10	11/7/2016 6:43:12 PM	W38511
2-Methylnaphthalene	ND	1.6	40		µg/L	10	11/7/2016 6:43:12 PM	W38511
Acetone	ND	49	100		µg/L	10	11/7/2016 6:43:12 PM	W38511
Bromobenzene	ND	0.98	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
Bromodichloromethane	ND	1.4	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
Bromoform	ND	1.0	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
Bromomethane	ND	7.8	30		µg/L	10	11/7/2016 6:43:12 PM	W38511
2-Butanone	ND	7.4	100		µg/L	10	11/7/2016 6:43:12 PM	W38511
Carbon disulfide	ND	6.0	100		µg/L	10	11/7/2016 6:43:12 PM	W38511
Carbon Tetrachloride	ND	1.1	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
Chlorobenzene	ND	1.1	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
Chloroethane	ND	1.9	20		µg/L	10	11/7/2016 6:43:12 PM	W38511
Chloroform	ND	0.89	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
Chloromethane	ND	2.1	30		µg/L	10	11/7/2016 6:43:12 PM	W38511
2-Chlorotoluene	ND	4.0	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
4-Chlorotoluene	ND	1.3	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
cis-1,2-DCE	17	1.2	10		µg/L	10	11/7/2016 6:43:12 PM	W38511

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-02
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 3:30:00 PM
Lab ID: 1610E79-006 **Matrix:** AQUEOUS **Received Date:** 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	11/7/2016 6:43:12 PM	W38511
Dibromochloromethane	ND	0.87	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
Dibromomethane	ND	1.2	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
1,1-Dichloroethane	62	1.1	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
1,1-Dichloroethene	37	1.1	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
1,2-Dichloropropane	ND	1.1	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
1,3-Dichloropropane	ND	1.6	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
2,2-Dichloropropane	ND	1.7	20		µg/L	10	11/7/2016 6:43:12 PM	W38511
1,1-Dichloropropene	ND	1.3	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
Hexachlorobutadiene	ND	2.0	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
2-Hexanone	ND	8.4	100		µg/L	10	11/7/2016 6:43:12 PM	W38511
Isopropylbenzene	6.2	1.0	10	J	µg/L	10	11/7/2016 6:43:12 PM	W38511
4-Isopropyltoluene	ND	1.4	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	11/7/2016 6:43:12 PM	W38511
Methylene Chloride	ND	1.9	30		µg/L	10	11/7/2016 6:43:12 PM	W38511
n-Butylbenzene	ND	1.6	30		µg/L	10	11/7/2016 6:43:12 PM	W38511
n-Propylbenzene	12	1.3	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
sec-Butylbenzene	1.8	1.2	10	J	µg/L	10	11/7/2016 6:43:12 PM	W38511
Styrene	ND	1.1	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
tert-Butylbenzene	ND	1.2	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	11/7/2016 6:43:12 PM	W38511
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
trans-1,2-DCE	ND	4.0	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
1,1,1-Trichloroethane	1.0	0.91	10	J	µg/L	10	11/7/2016 6:43:12 PM	W38511
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
Trichloroethene (TCE)	2.9	1.8	10	J	µg/L	10	11/7/2016 6:43:12 PM	W38511
Trichlorofluoromethane	ND	2.0	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	11/7/2016 6:43:12 PM	W38511
Vinyl chloride	ND	2.0	10		µg/L	10	11/7/2016 6:43:12 PM	W38511
Xylenes, Total	9.9	3.7	15	J	µg/L	10	11/7/2016 6:43:12 PM	W38511

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-02
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 3:30:00 PM
Lab ID: 1610E79-006
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 1,2-Dichloroethane-d4	96.6	0	70-130		%Rec	10	11/7/2016 6:43:12 PM	W38511
Surr: 4-Bromofluorobenzene	93.6	0	70-130		%Rec	10	11/7/2016 6:43:12 PM	W38511
Surr: Dibromofluoromethane	94.9	0	70-130		%Rec	10	11/7/2016 6:43:12 PM	W38511
Surr: Toluene-d8	96.0	0	70-130		%Rec	10	11/7/2016 6:43:12 PM	W38511

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKFT-30
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 4:30:00 PM
Lab ID: 1610E79-007
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	11/2/2016 8:06:38 PM	28411
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/2/2016 9:10:19 PM	28388
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/2/2016 9:10:19 PM	28388
Surr: DNOP	114	0	77.1-144		%Rec	1	11/2/2016 9:10:19 PM	28388
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.14	0.025	0.050		mg/L	1	11/4/2016 9:18:37 PM	G38456
Surr: BFB	89.2	0	66.4-120		%Rec	1	11/4/2016 9:18:37 PM	G38456
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	1.1	0.050	0.10		mg/L	1	11/3/2016 2:52:45 AM	R38416
Chloride	810	5.1	50		mg/L	100	11/9/2016 12:10:57 AM	R38550
Bromide	1.1	0.044	0.10		mg/L	1	11/3/2016 2:52:45 AM	R38416
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/8/2016 11:58:33 PM	R38550
Sulfate	400	2.8	10		mg/L	20	11/3/2016 3:05:09 AM	R38416
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	11/3/2016 5:21:41 AM	R38416
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.046	0.0013	0.0020		mg/L	1	11/14/2016 2:10:01 PM	B38703
Cadmium	ND	0.00075	0.0020		mg/L	1	11/14/2016 2:10:01 PM	B38703
Calcium	93	2.5	5.0		mg/L	5	11/10/2016 1:10:25 PM	B38611
Chromium	ND	0.0018	0.0060		mg/L	1	11/14/2016 2:10:01 PM	B38703
Copper	ND	0.0040	0.0060		mg/L	1	11/14/2016 2:10:01 PM	B38703
Iron	ND	0.020	0.020		mg/L	1	11/14/2016 2:10:01 PM	B38703
Magnesium	18	0.50	1.0		mg/L	1	11/14/2016 2:10:01 PM	B38703
Manganese	0.0031	0.00032	0.0020		mg/L	1	11/14/2016 2:10:01 PM	B38703
Potassium	ND	0.50	1.0		mg/L	1	11/14/2016 2:10:01 PM	B38703
Silver	ND	0.0028	0.0050		mg/L	1	11/18/2016 4:46:47 PM	B38830
Sodium	910	10	20		mg/L	20	11/18/2016 5:19:32 PM	B38830
Zinc	ND	0.0028	0.010		mg/L	1	11/14/2016 2:10:01 PM	B38703
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.16	0.00079	0.0020		mg/L	1	11/28/2016 6:45:57 PM	28799
Cadmium	ND	0.0015	0.0020		mg/L	1	11/19/2016 1:41:57 PM	28635
Chromium	0.0031	0.0027	0.0060	J	mg/L	1	11/19/2016 1:41:57 PM	28635
Copper	ND	0.0030	0.0060		mg/L	1	11/19/2016 1:41:57 PM	28635
Iron	3.0	0.10	0.10	*	mg/L	5	11/28/2016 6:47:49 PM	28799
Manganese	0.32	0.00027	0.0020	*	mg/L	1	11/19/2016 1:41:57 PM	28635
Silver	ND	0.0015	0.0050		mg/L	1	11/19/2016 1:41:57 PM	28635
Zinc	0.0088	0.0027	0.010	J	mg/L	1	11/19/2016 1:41:57 PM	28635

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKFT-30
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 4:30:00 PM
Lab ID: 1610E79-007
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0027	0.00069	0.0050	J	mg/L	5	11/15/2016 4:18:53 PM	A38728
Lead	ND	0.00017	0.00050		mg/L	1	11/11/2016 8:05:16 PM	D38648
Selenium	0.0077	0.00021	0.0010		mg/L	1	11/11/2016 8:05:16 PM	D38648
Uranium	0.029	0.00026	0.0025		mg/L	5	11/14/2016 6:20:31 PM	B38697
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0022	0.0011	0.0050	J	mg/L	5	11/15/2016 2:49:30 PM	28635
Lead	0.0045	0.000081	0.00050		mg/L	1	11/15/2016 1:54:51 PM	28635
Selenium	0.0065	0.0019	0.010	J	mg/L	10	11/15/2016 2:52:30 PM	28635
Uranium	0.030	0.00087	0.0025		mg/L	5	11/15/2016 2:49:30 PM	28635
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/15/2016 4:57:05 PM	28644
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Acenaphthylene	ND	2.4	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Aniline	ND	2.4	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Anthracene	ND	2.5	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Azobenzene	ND	2.7	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Benzoic acid	8.6	2.6	20	J	µg/L	1	11/3/2016 11:11:19 PM	28386
Benzyl alcohol	ND	3.0	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Bis(2-ethylhexyl)phthalate	6.9	2.6	10	J	µg/L	1	11/3/2016 11:11:19 PM	28386
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Butyl benzyl phthalate	2.7	2.5	10	J	µg/L	1	11/3/2016 11:11:19 PM	28386
Carbazole	ND	2.3	10		µg/L	1	11/3/2016 11:11:19 PM	28386
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/3/2016 11:11:19 PM	28386
4-Chloroaniline	ND	2.7	10		µg/L	1	11/3/2016 11:11:19 PM	28386
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/3/2016 11:11:19 PM	28386
2-Chlorophenol	ND	2.2	10		µg/L	1	11/3/2016 11:11:19 PM	28386
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Chrysene	ND	2.8	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/3/2016 11:11:19 PM	28386

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKFT-30
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 4:30:00 PM
Lab ID: 1610E79-007
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	6.9	2.0	10	J	µg/L	1	11/3/2016 11:11:19 PM	28386
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Dibenzofuran	ND	2.5	10		µg/L	1	11/3/2016 11:11:19 PM	28386
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/3/2016 11:11:19 PM	28386
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/3/2016 11:11:19 PM	28386
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/3/2016 11:11:19 PM	28386
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Diethyl phthalate	ND	2.7	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/3/2016 11:11:19 PM	28386
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/3/2016 11:11:19 PM	28386
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/3/2016 11:11:19 PM	28386
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/3/2016 11:11:19 PM	28386
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/3/2016 11:11:19 PM	28386
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/3/2016 11:11:19 PM	28386
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Fluoranthene	ND	2.6	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Fluorene	ND	2.7	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Hexachloroethane	ND	2.4	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Isophorone	ND	2.6	10		µg/L	1	11/3/2016 11:11:19 PM	28386
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/3/2016 11:11:19 PM	28386
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/3/2016 11:11:19 PM	28386
2-Methylphenol	ND	2.5	10		µg/L	1	11/3/2016 11:11:19 PM	28386
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/3/2016 11:11:19 PM	28386
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/3/2016 11:11:19 PM	28386
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/3/2016 11:11:19 PM	28386
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Naphthalene	ND	2.6	10		µg/L	1	11/3/2016 11:11:19 PM	28386
2-Nitroaniline	ND	2.8	10		µg/L	1	11/3/2016 11:11:19 PM	28386
3-Nitroaniline	ND	2.9	10		µg/L	1	11/3/2016 11:11:19 PM	28386
4-Nitroaniline	ND	2.6	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Nitrobenzene	ND	2.8	10		µg/L	1	11/3/2016 11:11:19 PM	28386
2-Nitrophenol	ND	2.4	10		µg/L	1	11/3/2016 11:11:19 PM	28386
4-Nitrophenol	ND	2.6	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Pentachlorophenol	ND	2.3	20		µg/L	1	11/3/2016 11:11:19 PM	28386
Phenanthrene	ND	2.6	10		µg/L	1	11/3/2016 11:11:19 PM	28386

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKFT-30
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 4:30:00 PM
Lab ID: 1610E79-007
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	ND	2.0	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Pyrene	ND	3.1	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Pyridine	ND	2.2	10		µg/L	1	11/3/2016 11:11:19 PM	28386
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/3/2016 11:11:19 PM	28386
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/3/2016 11:11:19 PM	28386
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/3/2016 11:11:19 PM	28386
Surr: 2-Fluorophenol	21.5	0	15-98.1		%Rec	1	11/3/2016 11:11:19 PM	28386
Surr: Phenol-d5	19.4	0	15-80.7		%Rec	1	11/3/2016 11:11:19 PM	28386
Surr: 2,4,6-Tribromophenol	33.4	0	15-112		%Rec	1	11/3/2016 11:11:19 PM	28386
Surr: Nitrobenzene-d5	58.6	0	27.2-90.7		%Rec	1	11/3/2016 11:11:19 PM	28386
Surr: 2-Fluorobiphenyl	45.1	0	23.3-85.6		%Rec	1	11/3/2016 11:11:19 PM	28386
Surr: 4-Terphenyl-d14	30.8	0	27.6-107		%Rec	1	11/3/2016 11:11:19 PM	28386
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
Toluene	ND	0.12	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
Methyl tert-butyl ether (MTBE)	2.0	0.21	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
1,2-Dichloroethane (EDC)	5.2	0.12	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
Naphthalene	ND	0.093	2.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
Acetone	ND	4.9	10		µg/L	1	11/7/2016 7:40:16 PM	W38511
Bromobenzene	ND	0.098	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
Bromoform	ND	0.10	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
Bromomethane	ND	0.78	3.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
2-Butanone	ND	0.74	10		µg/L	1	11/7/2016 7:40:16 PM	W38511
Carbon disulfide	ND	0.60	10		µg/L	1	11/7/2016 7:40:16 PM	W38511
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
Chloroethane	ND	0.19	2.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
Chloroform	0.20	0.089	1.0	J	µg/L	1	11/7/2016 7:40:16 PM	W38511
Chloromethane	ND	0.21	3.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
cis-1,2-DCE	10	0.12	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKFT-30
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 4:30:00 PM
Lab ID: 1610E79-007
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
Dibromomethane	ND	0.12	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
1,1-Dichloroethane	110	1.1	10		µg/L	10	11/7/2016 7:11:47 PM	W38511
1,1-Dichloroethene	7.9	0.11	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
2-Hexanone	ND	0.84	10		µg/L	1	11/7/2016 7:40:16 PM	W38511
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/7/2016 7:40:16 PM	W38511
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
Styrene	ND	0.11	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
Tetrachloroethene (PCE)	0.47	0.15	1.0	J	µg/L	1	11/7/2016 7:40:16 PM	W38511
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
1,1,1-Trichloroethane	2.6	0.091	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
1,1,2-Trichloroethane	0.91	0.13	1.0	J	µg/L	1	11/7/2016 7:40:16 PM	W38511
Trichloroethene (TCE)	6.9	0.18	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/7/2016 7:40:16 PM	W38511
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/7/2016 7:40:16 PM	W38511

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKFT-30
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016 4:30:00 PM
Lab ID: 1610E79-007
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 1,2-Dichloroethane-d4	99.0	0	70-130		%Rec	1	11/7/2016 7:40:16 PM	W38511
Surr: 4-Bromofluorobenzene	94.8	0	70-130		%Rec	1	11/7/2016 7:40:16 PM	W38511
Surr: Dibromofluoromethane	93.8	0	70-130		%Rec	1	11/7/2016 7:40:16 PM	W38511
Surr: Toluene-d8	95.6	0	70-130		%Rec	1	11/7/2016 7:40:16 PM	W38511

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP01
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016
Lab ID: 1610E79-008
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/2/2016 9:32:00 PM	28388
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/2/2016 9:32:00 PM	28388
Surr: DNOP	116	0	77.1-144		%Rec	1	11/2/2016 9:32:00 PM	28388
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/4/2016 9:43:05 PM	G38456
Surr: BFB	83.5	0	66.4-120		%Rec	1	11/4/2016 9:43:05 PM	G38456
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	1.1	0.050	0.10		mg/L	1	11/3/2016 3:42:22 AM	R38416
Chloride	68	1.0	10		mg/L	20	11/9/2016 12:35:46 AM	R38550
Bromide	0.35	0.044	0.10		mg/L	1	11/3/2016 3:42:22 AM	R38416
Phosphorus, Orthophosphate (As P)	0.15	0.076	0.50	JH	mg/L	1	11/9/2016 12:23:22 AM	R38550
Sulfate	550	2.8	10		mg/L	20	11/3/2016 3:54:47 AM	R38416
Nitrate+Nitrite as N	ND	0.092	0.20	H	mg/L	1	11/3/2016 3:42:22 AM	R38416
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.028	0.0013	0.0020		mg/L	1	11/10/2016 1:19:47 PM	B38611
Cadmium	ND	0.00075	0.0020		mg/L	1	11/10/2016 1:19:47 PM	B38611
Calcium	62	0.50	1.0		mg/L	1	11/10/2016 1:19:47 PM	B38611
Chromium	ND	0.0018	0.0060		mg/L	1	11/10/2016 1:19:47 PM	B38611
Copper	ND	0.0040	0.0060		mg/L	1	11/10/2016 1:19:47 PM	B38611
Iron	ND	0.020	0.020		mg/L	1	11/10/2016 1:19:47 PM	B38611
Magnesium	8.6	0.50	1.0		mg/L	1	11/10/2016 1:19:47 PM	B38611
Manganese	0.39	0.00032	0.0020	*	mg/L	1	11/10/2016 1:19:47 PM	B38611
Potassium	0.51	0.50	1.0	J	mg/L	1	11/10/2016 1:19:47 PM	B38611
Silver	ND	0.0028	0.0050		mg/L	1	11/18/2016 4:48:13 PM	B38830
Sodium	510	5.0	10		mg/L	10	11/14/2016 2:13:52 PM	B38703
Zinc	0.0036	0.0028	0.010	J	mg/L	1	11/14/2016 2:11:56 PM	B38703
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.11	0.00079	0.0020		mg/L	1	11/28/2016 6:49:55 PM	28799
Cadmium	ND	0.0015	0.0020		mg/L	1	11/18/2016 7:51:25 PM	28635
Chromium	ND	0.0027	0.0060		mg/L	1	11/18/2016 7:51:25 PM	28635
Copper	0.0072	0.0030	0.0060		mg/L	1	11/18/2016 7:51:25 PM	28635
Iron	1.6	0.10	0.10	*	mg/L	5	11/18/2016 7:52:48 PM	28635
Manganese	0.44	0.00027	0.0020	*	mg/L	1	11/18/2016 7:51:25 PM	28635
Silver	ND	0.0015	0.0050		mg/L	1	11/18/2016 7:51:25 PM	28635
Zinc	0.0040	0.0027	0.010	J	mg/L	1	11/18/2016 7:51:25 PM	28635
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0017	0.00014	0.0010		mg/L	1	11/11/2016 8:08:19 PM	D38648

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP01
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016
Lab ID: 1610E79-008
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00017	0.00050		mg/L	1	11/11/2016 8:08:19 PM	D38648
Selenium	0.0023	0.00021	0.0010		mg/L	1	11/11/2016 8:08:19 PM	D38648
Uranium	0.013	0.000051	0.00050		mg/L	1	11/14/2016 6:25:40 PM	B38697
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0018	0.00021	0.0010		mg/L	1	11/15/2016 1:57:52 PM	28635
Lead	0.0019	0.000081	0.00050		mg/L	1	11/15/2016 1:57:52 PM	28635
Selenium	0.0017	0.00094	0.0050	J	mg/L	5	11/15/2016 2:55:31 PM	28635
Uranium	0.014	0.00017	0.00050		mg/L	1	11/15/2016 1:57:52 PM	28635
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/15/2016 4:59:05 PM	28644
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Acenaphthylene	ND	2.4	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Aniline	ND	2.4	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Anthracene	ND	2.5	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Azobenzene	ND	2.7	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Benzoic acid	8.9	2.6	20	J	µg/L	1	11/3/2016 11:38:57 PM	28386
Benzyl alcohol	ND	3.0	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Bis(2-ethylhexyl)phthalate	6.9	2.6	10	J	µg/L	1	11/3/2016 11:38:57 PM	28386
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Butyl benzyl phthalate	2.7	2.5	10	J	µg/L	1	11/3/2016 11:38:57 PM	28386
Carbazole	ND	2.3	10		µg/L	1	11/3/2016 11:38:57 PM	28386
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/3/2016 11:38:57 PM	28386
4-Chloroaniline	ND	2.7	10		µg/L	1	11/3/2016 11:38:57 PM	28386
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/3/2016 11:38:57 PM	28386
2-Chlorophenol	ND	2.2	10		µg/L	1	11/3/2016 11:38:57 PM	28386
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Chrysene	ND	2.8	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Di-n-octyl phthalate	6.9	2.0	10	J	µg/L	1	11/3/2016 11:38:57 PM	28386

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP01
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016
Lab ID: 1610E79-008
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Dibenzofuran	ND	2.5	10		µg/L	1	11/3/2016 11:38:57 PM	28386
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/3/2016 11:38:57 PM	28386
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/3/2016 11:38:57 PM	28386
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/3/2016 11:38:57 PM	28386
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Diethyl phthalate	ND	2.7	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/3/2016 11:38:57 PM	28386
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/3/2016 11:38:57 PM	28386
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/3/2016 11:38:57 PM	28386
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/3/2016 11:38:57 PM	28386
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/3/2016 11:38:57 PM	28386
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/3/2016 11:38:57 PM	28386
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Fluoranthene	ND	2.6	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Fluorene	ND	2.7	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Hexachloroethane	ND	2.4	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Isophorone	ND	2.6	10		µg/L	1	11/3/2016 11:38:57 PM	28386
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/3/2016 11:38:57 PM	28386
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/3/2016 11:38:57 PM	28386
2-Methylphenol	ND	2.5	10		µg/L	1	11/3/2016 11:38:57 PM	28386
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/3/2016 11:38:57 PM	28386
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/3/2016 11:38:57 PM	28386
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/3/2016 11:38:57 PM	28386
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Naphthalene	ND	2.6	10		µg/L	1	11/3/2016 11:38:57 PM	28386
2-Nitroaniline	ND	2.8	10		µg/L	1	11/3/2016 11:38:57 PM	28386
3-Nitroaniline	ND	2.9	10		µg/L	1	11/3/2016 11:38:57 PM	28386
4-Nitroaniline	ND	2.6	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Nitrobenzene	ND	2.8	10		µg/L	1	11/3/2016 11:38:57 PM	28386
2-Nitrophenol	ND	2.4	10		µg/L	1	11/3/2016 11:38:57 PM	28386
4-Nitrophenol	ND	2.6	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Pentachlorophenol	ND	2.3	20		µg/L	1	11/3/2016 11:38:57 PM	28386
Phenanthrene	ND	2.6	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Phenol	ND	2.0	10		µg/L	1	11/3/2016 11:38:57 PM	28386

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP01
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016
Lab ID: 1610E79-008
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	3.1	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Pyridine	ND	2.2	10		µg/L	1	11/3/2016 11:38:57 PM	28386
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/3/2016 11:38:57 PM	28386
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/3/2016 11:38:57 PM	28386
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/3/2016 11:38:57 PM	28386
Surr: 2-Fluorophenol	19.4	0	15-98.1		%Rec	1	11/3/2016 11:38:57 PM	28386
Surr: Phenol-d5	17.5	0	15-80.7		%Rec	1	11/3/2016 11:38:57 PM	28386
Surr: 2,4,6-Tribromophenol	34.1	0	15-112		%Rec	1	11/3/2016 11:38:57 PM	28386
Surr: Nitrobenzene-d5	51.9	0	27.2-90.7		%Rec	1	11/3/2016 11:38:57 PM	28386
Surr: 2-Fluorobiphenyl	36.2	0	23.3-85.6		%Rec	1	11/3/2016 11:38:57 PM	28386
Surr: 4-Terphenyl-d14	29.7	0	27.6-107		%Rec	1	11/3/2016 11:38:57 PM	28386
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Toluene	ND	0.12	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Methyl tert-butyl ether (MTBE)	5.0	0.21	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Naphthalene	ND	0.093	2.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Acetone	ND	4.9	10		µg/L	1	11/7/2016 2:25:20 PM	W38511
Bromobenzene	ND	0.098	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Bromoform	ND	0.10	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Bromomethane	ND	0.78	3.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
2-Butanone	ND	0.74	10		µg/L	1	11/7/2016 2:25:20 PM	W38511
Carbon disulfide	ND	0.60	10		µg/L	1	11/7/2016 2:25:20 PM	W38511
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Chloroethane	ND	0.19	2.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Chloroform	ND	0.089	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Chloromethane	ND	0.21	3.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP01
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016
Lab ID: 1610E79-008
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Dibromomethane	ND	0.12	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
2-Hexanone	ND	0.84	10		µg/L	1	11/7/2016 2:25:20 PM	W38511
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/7/2016 2:25:20 PM	W38511
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Styrene	ND	0.11	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/7/2016 2:25:20 PM	W38511
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/7/2016 2:25:20 PM	W38511
Surr: 1,2-Dichloroethane-d4	95.7	0	70-130		%Rec	1	11/7/2016 2:25:20 PM	W38511

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP01
Project: 2016 4th QTR (MKTF)
Collection Date: 10/28/2016
Lab ID: 1610E79-008
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Surr: 4-Bromofluorobenzene	95.6	0	70-130		%Rec	1	11/7/2016 2:25:20 PM	W38511
Surr: Dibromofluoromethane	92.8	0	70-130		%Rec	1	11/7/2016 2:25:20 PM	W38511
Surr: Toluene-d8	93.3	0	70-130		%Rec	1	11/7/2016 2:25:20 PM	W38511

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2016 4th QTR (MKTF)
Collection Date:
Lab ID: 1610E79-009
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/4/2016 10:07:27 PM	G38456
Surr: BFB	86.2	0	66.4-120		%Rec	1	11/4/2016 10:07:27 PM	G38456
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
Benzene	ND	0.096	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Toluene	ND	0.12	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Naphthalene	ND	0.093	2.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Acetone	ND	4.9	10		µg/L	1	11/7/2016 2:54:07 PM	W38511
Bromobenzene	ND	0.098	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Bromoform	ND	0.10	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Bromomethane	ND	0.78	3.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
2-Butanone	ND	0.74	10		µg/L	1	11/7/2016 2:54:07 PM	W38511
Carbon disulfide	ND	0.60	10		µg/L	1	11/7/2016 2:54:07 PM	W38511
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Chloroethane	ND	0.19	2.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Chloroform	ND	0.089	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Chloromethane	ND	0.21	3.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Dibromomethane	ND	0.12	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2016 4th QTR (MKTF)
Collection Date:
Lab ID: 1610E79-009
Matrix: AQUEOUS
Received Date: 10/29/2016 8:40:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **DJF**	
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
2-Hexanone	ND	0.84	10		µg/L	1	11/7/2016 2:54:07 PM	W38511
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/7/2016 2:54:07 PM	W38511
Methylene Chloride	0.29	0.19	3.0	J	µg/L	1	11/7/2016 2:54:07 PM	W38511
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Styrene	ND	0.11	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/7/2016 2:54:07 PM	W38511
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/7/2016 2:54:07 PM	W38511
Surr: 1,2-Dichloroethane-d4	97.8	0	70-130		%Rec	1	11/7/2016 2:54:07 PM	W38511
Surr: 4-Bromofluorobenzene	95.0	0	70-130		%Rec	1	11/7/2016 2:54:07 PM	W38511
Surr: Dibromofluoromethane	97.9	0	70-130		%Rec	1	11/7/2016 2:54:07 PM	W38511
Surr: Toluene-d8	94.4	0	70-130		%Rec	1	11/7/2016 2:54:07 PM	W38511

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B38611**	RunNo: **38611**
Prep Date:	Analysis Date: **11/10/2016**	SeqNo: **1206917** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B38611**	RunNo: **38611**
Prep Date:	Analysis Date: **11/10/2016**	SeqNo: **1206918** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.2	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Calcium	51	1.0	50.00	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	99.1	85	115			
Copper	0.48	0.0060	0.5000	0	96.3	85	115			
Iron	0.49	0.020	0.5000	0	99.0	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Manganese	0.48	0.0020	0.5000	0	96.7	85	115			
Potassium	49	1.0	50.00	0	98.6	85	115			
Zinc	0.52	0.010	0.5000	0	103	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B38611**	RunNo: **38611**
Prep Date:	Analysis Date: **11/10/2016**	SeqNo: **1206919** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0018	0.0020	0.002000	0	90.5	50	150			J
Cadmium	0.0022	0.0020	0.002000	0	108	50	150			
Calcium	0.53	1.0	0.5000	0	106	50	150			J
Chromium	0.0060	0.0060	0.006000	0	100	50	150			
Copper	0.0075	0.0060	0.006000	0	125	50	150			
Iron	0.022	0.020	0.02000	0	108	50	150			
Magnesium	0.52	1.0	0.5000	0	104	50	150			J
Manganese	0.0024	0.0020	0.002000	0	120	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B38611**	RunNo: **38611**
Prep Date:	Analysis Date: **11/10/2016**	SeqNo: **1206919** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	0.65	1.0	0.5000	0	130	50	150			J
Zinc	0.0057	0.010	0.005000	0	114	50	150			J

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B38703**	RunNo: **38703**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1209001** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B38703**	RunNo: **38703**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1209002** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.6	85	115			
Cadmium	0.53	0.0020	0.5000	0	105	85	115			
Chromium	0.49	0.0060	0.5000	0	98.6	85	115			
Copper	0.49	0.0060	0.5000	0	97.9	85	115			
Iron	0.49	0.020	0.5000	0	98.5	85	115			
Magnesium	52	1.0	50.00	0	103	85	115			
Manganese	0.48	0.0020	0.5000	0	97.0	85	115			
Potassium	51	1.0	50.00	0	101	85	115			
Sodium	52	1.0	50.00	0	103	85	115			
Zinc	0.50	0.010	0.5000	0	99.7	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B38703**	RunNo: **38703**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1209014** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B38703**	RunNo: **38703**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1209014** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0016	0.0020	0.002000	0	80.5	50	150			J
Cadmium	0.0019	0.0020	0.002000	0	94.5	50	150			J
Chromium	0.0060	0.0060	0.006000	0	101	50	150			
Copper	0.0074	0.0060	0.006000	0	124	50	150			
Iron	0.019	0.020	0.02000	0	96.2	50	150			J
Magnesium	0.55	1.0	0.5000	0	111	50	150			J
Manganese	0.0019	0.0020	0.002000	0	95.5	50	150			J
Potassium	0.69	1.0	0.5000	0	138	50	150			J
Sodium	0.58	1.0	0.5000	0	116	50	150			J
Zinc	0.0042	0.010	0.005000	0	83.0	50	150			J

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A38830**	RunNo: **38830**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1213320** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A38830**	RunNo: **38830**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1213321** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.0050	0.0050	0.005000	0	99.8	50	150			J

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A38830**	RunNo: **38830**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1213322** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.098	0.0050	0.1000	0	97.6	85	115			

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B38830**	RunNo: **38830**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1213348** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								
Sodium	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B38830**	RunNo: **38830**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1213349** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.0049	0.0050	0.005000	0	98.6	50	150			J
Sodium	0.64	1.0	0.5000	0	127	50	150			J

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B38830**	RunNo: **38830**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1213350** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.096	0.0050	0.1000	0	96.0	85	115			
Sodium	52	1.0	50.00	0	104	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**MB-28635**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**28635**	RunNo:	**38830**					
Prep Date:	**11/14/2016**	Analysis Date:	**11/18/2016**	SeqNo:	**1213431**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	**LLLCS-28635**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID:	**28635**	RunNo:	**38830**					
Prep Date:	**11/14/2016**	Analysis Date:	**11/18/2016**	SeqNo:	**1213432**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.0017	0.0020	0.002000	0	87.0	50	150			J
Chromium	0.0060	0.0060	0.006000	0	100	50	150			
Copper	0.0059	0.0060	0.006000	0	99.0	50	150			J
Iron	0.027	0.020	0.02000	0	133	50	150			
Manganese	0.0029	0.0020	0.002000	0	144	50	150			
Silver	0.0050	0.0050	0.005000	0	100	50	150			
Zinc	0.0067	0.010	0.005000	0	134	50	150			J

Sample ID	**LCS-28635**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID:	**28635**	RunNo:	**38830**					
Prep Date:	**11/14/2016**	Analysis Date:	**11/18/2016**	SeqNo:	**1213433**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	99.3	85	115			
Chromium	0.49	0.0060	0.5000	0	98.3	85	115			
Copper	0.50	0.0060	0.5000	0	99.4	85	115			
Iron	0.49	0.020	0.5000	0	98.6	85	115			
Manganese	0.48	0.0020	0.5000	0	96.3	85	115			
Silver	0.099	0.0050	0.1000	0	98.8	85	115			
Zinc	0.48	0.010	0.5000	0	96.2	85	115			

Sample ID	**1610E79-001EMS**	SampType:	**MS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**FB102816**	Batch ID:	**28635**	RunNo:	**38830**					
Prep Date:	**11/14/2016**	Analysis Date:	**11/18/2016**	SeqNo:	**1213476**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.47	0.0020	0.5000	0	94.2	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**1610E79-001EMS**	SampType: **MS**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**FB102816**	Batch ID: **28635**		RunNo: **38830**					
Prep Date:	**11/14/2016**	Analysis Date: **11/18/2016**		SeqNo: **1213476**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.47	0.0060	0.5000	0	94.5	70	130			
Copper	0.51	0.0060	0.5000	0.003580	101	70	130			
Iron	0.48	0.020	0.5000	0	95.0	70	130			
Manganese	0.46	0.0020	0.5000	0.0003600	92.5	70	130			
Zinc	0.43	0.010	0.5000	0	87.0	70	130			

Sample ID	**1610E79-001EMSD**	SampType: **MSD**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**FB102816**	Batch ID: **28635**		RunNo: **38830**					
Prep Date:	**11/14/2016**	Analysis Date: **11/18/2016**		SeqNo: **1213477**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.47	0.0020	0.5000	0	94.6	70	130	0.405	20	
Chromium	0.47	0.0060	0.5000	0	93.9	70	130	0.588	20	
Copper	0.51	0.0060	0.5000	0.003580	101	70	130	0.358	20	
Iron	0.48	0.020	0.5000	0	96.5	70	130	1.51	20	
Manganese	0.47	0.0020	0.5000	0.0003600	93.3	70	130	0.844	20	
Zinc	0.43	0.010	0.5000	0	86.6	70	130	0.435	20	

Sample ID	**1610E79-005EMS**	SampType: **MS**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-24**	Batch ID: **28635**		RunNo: **38846**					
Prep Date:	**11/14/2016**	Analysis Date: **11/19/2016**		SeqNo: **1214373**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.48	0.0020	0.5000	0	97.0	70	130			
Chromium	0.48	0.0060	0.5000	0	96.9	70	130			
Copper	0.52	0.0060	0.5000	0	105	70	130			
Silver	0.082	0.0050	0.1000	0	82.0	70	130			
Zinc	0.46	0.010	0.5000	0.006470	91.5	70	130			

Sample ID	**1610E79-005EMSD**	SampType: **MSD**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-24**	Batch ID: **28635**		RunNo: **38846**					
Prep Date:	**11/14/2016**	Analysis Date: **11/19/2016**		SeqNo: **1214374**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.49	0.0020	0.5000	0	97.4	70	130	0.409	20	
Chromium	0.49	0.0060	0.5000	0	97.1	70	130	0.206	20	
Copper	0.53	0.0060	0.5000	0	105	70	130	0.304	20	
Silver	0.091	0.0050	0.1000	0	91.4	70	130	10.9	20	
Zinc	0.46	0.010	0.5000	0.006470	91.5	70	130	0.0797	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**MB-28799**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**28799**	RunNo:	**38939**					
Prep Date:	**11/22/2016**	Analysis Date:	**11/23/2016**	SeqNo:	**1217617**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	0.0030	0.0050								J

Sample ID	**LCS-28799**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID:	**28799**	RunNo:	**38939**					
Prep Date:	**11/22/2016**	Analysis Date:	**11/23/2016**	SeqNo:	**1217618**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.7	85	115			
Iron	0.48	0.020	0.5000	0	95.1	85	115			
Manganese	0.47	0.0020	0.5000	0	94.7	85	115			
Silver	0.099	0.0050	0.1000	0	98.9	85	115			

Sample ID	**LLLCS-28799**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID:	**28799**	RunNo:	**38939**					
Prep Date:	**11/22/2016**	Analysis Date:	**11/23/2016**	SeqNo:	**1217619**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0019	0.0020	0.002000	0	94.5	50	150			J
Iron	0.020	0.020	0.02000	0	102	50	150			
Manganese	0.0020	0.0020	0.002000	0	103	50	150			
Silver	0.0048	0.0050	0.005000	0	97.0	50	150			J

Sample ID	**1610E79-001EMS**	SampType:	**MS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**FB102816**	Batch ID:	**28799**	RunNo:	**38939**					
Prep Date:	**11/22/2016**	Analysis Date:	**11/23/2016**	SeqNo:	**1218117**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.7	70	130			

Sample ID	**1610E79-001EMSD**	SampType:	**MSD**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**FB102816**	Batch ID:	**28799**	RunNo:	**38939**					
Prep Date:	**11/22/2016**	Analysis Date:	**11/23/2016**	SeqNo:	**1218118**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.2	70	130	0.551	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**1610E79-001EMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**FB102816**	Batch ID:	**28799**		RunNo:	**38985**				
Prep Date:	**11/22/2016**	Analysis Date:	**11/28/2016**		SeqNo:	**1219653**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.098	0.0050	0.1000	0	98.1	70	130			

Sample ID	**1610E79-001EMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**FB102816**	Batch ID:	**28799**		RunNo:	**38985**				
Prep Date:	**11/22/2016**	Analysis Date:	**11/28/2016**		SeqNo:	**1219654**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.098	0.0050	0.1000	0	98.2	70	130	0.0917	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **D38648**	RunNo: **38648**
Prep Date:	Analysis Date: **11/11/2016**	SeqNo: **1207927** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.022	0.0010	0.02500	0	89.3	85	115			
Lead	0.012	0.00050	0.01250	0	92.9	85	115			
Selenium	0.023	0.0010	0.02500	0	93.1	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **D38648**	RunNo: **38648**
Prep Date:	Analysis Date: **11/11/2016**	SeqNo: **1207928** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00089	0.0010	0.001000	0	89.0	50	150			J
Lead	0.00047	0.00050	0.0005000	0	93.8	50	150			J
Selenium	0.00094	0.0010	0.001000	0	94.4	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **D38648**	RunNo: **38648**
Prep Date:	Analysis Date: **11/11/2016**	SeqNo: **1207929** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B38697**	RunNo: **38697**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208642** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.013	0.00050	0.01250	0	101	85	115			
Uranium	0.013	0.00050	0.01250	0	100	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B38697**	RunNo: **38697**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208645** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00055	0.00050	0.0005000	0	110	50	150			
Uranium	0.00051	0.00050	0.0005000	0	102	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B38697**	RunNo: **38697**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208650** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Uranium	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A38728**	RunNo: **38728**
Prep Date:	Analysis Date: **11/15/2016**	SeqNo: **1210049** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.9	85	115			
Selenium	0.024	0.0010	0.02500	0	95.8	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A38728**	RunNo: **38728**
Prep Date:	Analysis Date: **11/15/2016**	SeqNo: **1210054** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	103	50	150			
Selenium	0.0011	0.0010	0.001000	0	112	50	150			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A38728**	RunNo: **38728**
Prep Date:	Analysis Date: **11/15/2016**	SeqNo: **1210058** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**MB-28635**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**28635**	RunNo:	**38717**					
Prep Date:	**11/14/2016**	Analysis Date:	**11/15/2016**	SeqNo:	**1209351**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-28635**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**28635**	RunNo:	**38717**					
Prep Date:	**11/14/2016**	Analysis Date:	**11/15/2016**	SeqNo:	**1209352**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.1	85	115			
Lead	0.012	0.00050	0.01250	0	99.3	85	115			
Selenium	0.024	0.0010	0.02500	0	96.5	85	115			
Uranium	0.012	0.00050	0.01250	0	97.7	85	115			

Sample ID	**MSLLLCS-28635**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**28635**	RunNo:	**38717**					
Prep Date:	**11/14/2016**	Analysis Date:	**11/15/2016**	SeqNo:	**1209353**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00097	0.0010	0.001000	0	97.2	50	150			J
Lead	0.00051	0.00050	0.0005000	0	101	50	150			
Selenium	0.00098	0.0010	0.001000	0	98.0	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	98.8	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**LCS-28644**	SampType:	**LCS**		TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**28644**		RunNo:	**38727**					
Prep Date:	**11/14/2016**	Analysis Date:	**11/15/2016**		SeqNo:	**1209661**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0050	0.00020	0.005000	0	101	80	120				

Sample ID	**MB-28644**	SampType:	**MBLK**		TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**28644**		RunNo:	**38727**					
Prep Date:	**11/14/2016**	Analysis Date:	**11/15/2016**		SeqNo:	**1209672**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	ND	0.00020									

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R38416**	RunNo: **38416**
Prep Date:	Analysis Date: **11/2/2016**	SeqNo: **1199847** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R38416**	RunNo: **38416**
Prep Date:	Analysis Date: **11/2/2016**	SeqNo: **1199848** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Bromide	2.3	0.10	2.500	0	92.7	90	110			
Sulfate	9.1	0.50	10.00	0	90.6	90	110			
Nitrate+Nitrite as N	3.3	0.20	3.500	0	93.8	90	110			

Sample ID **1610E79-001DMS**	SampType: **ms**	TestCode: **EPA Method 300.0: Anions**
Client ID: **FB102816**	Batch ID: **R38416**	RunNo: **38416**
Prep Date:	Analysis Date: **11/2/2016**	SeqNo: **1199874** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.54	0.10	0.5000	0	108	74.5	121			
Bromide	2.4	0.10	2.500	0	95.5	74.6	115			
Sulfate	9.4	0.50	10.00	0	94.1	83	118			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.1	72.9	117			

Sample ID **1610E79-001DMSD**	SampType: **msd**	TestCode: **EPA Method 300.0: Anions**
Client ID: **FB102816**	Batch ID: **R38416**	RunNo: **38416**
Prep Date:	Analysis Date: **11/2/2016**	SeqNo: **1199875** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.56	0.10	0.5000	0	112	74.5	121	3.64	20	
Bromide	2.5	0.10	2.500	0	99.5	74.6	115	4.19	20	
Sulfate	9.8	0.50	10.00	0	98.3	83	118	4.36	20	
Nitrate+Nitrite as N	3.6	0.20	3.500	0	102	72.9	117	4.48	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R38550**	RunNo: **38550**
Prep Date:	Analysis Date: **11/8/2016**	SeqNo: **1204438** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R38550**	RunNo: **38550**
Prep Date:	Analysis Date: **11/8/2016**	SeqNo: **1204438** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R38550**	RunNo: **38550**
Prep Date:	Analysis Date: **11/8/2016**	SeqNo: **1204439** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.3	90	110			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	91.6	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R38643**	RunNo: **38643**
Prep Date:	Analysis Date: **11/11/2016**	SeqNo: **1207025** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R38643**	RunNo: **38643**
Prep Date:	Analysis Date: **11/11/2016**	SeqNo: **1207026** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.6	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**MB-28411**	SampType:	**MBLK**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**PBW**	Batch ID:	**28411**	RunNo:	**38404**					
Prep Date:	**11/2/2016**	Analysis Date:	**11/2/2016**	SeqNo:	**1199357**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID	**LCS-28411**	SampType:	**LCS**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**LCSW**	Batch ID:	**28411**	RunNo:	**38404**					
Prep Date:	**11/2/2016**	Analysis Date:	**11/2/2016**	SeqNo:	**1199358**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.097	0.010	0.1000	0	96.6	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **LCS-28388**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **28388**	RunNo: **38355**
Prep Date: **11/1/2016**	Analysis Date: **11/2/2016**	SeqNo: **1199608** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	115	63.2	155			
Surr: DNOP	0.57		0.5000		114	77.1	144			

Sample ID **MB-28388**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **28388**	RunNo: **38355**
Prep Date: **11/1/2016**	Analysis Date: **11/2/2016**	SeqNo: **1199609** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		115	77.1	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G38456**	RunNo: **38456**
Prep Date:	Analysis Date: **11/4/2016**	SeqNo: **1201414** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		92.0	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G38456**	RunNo: **38456**
Prep Date:	Analysis Date: **11/4/2016**	SeqNo: **1201415** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	96.4	80	120			
Surr: BFB	19		20.00		94.1	66.4	120			

Sample ID **1610E79-005BMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-24**	Batch ID: **G38456**	RunNo: **38528**
Prep Date:	Analysis Date: **11/8/2016**	SeqNo: **1203931** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	52	2.5	25.00	30.45	86.6	64.8	129			
Surr: BFB	1000		1000		103	66.4	120			

Sample ID **1610E79-005BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-24**	Batch ID: **G38456**	RunNo: **38528**
Prep Date:	Analysis Date: **11/8/2016**	SeqNo: **1203932** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	51	2.5	25.00	30.45	83.4	64.8	129	1.51	20	
Surr: BFB	1000		1000		103	66.4	120	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **W38511**	RunNo: **38511**
Prep Date:	Analysis Date: **11/7/2016**	SeqNo: **1202758** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	0.31	3.0								J
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**
06-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **W38511**	RunNo: **38511**
Prep Date:	Analysis Date: **11/7/2016**	SeqNo: **1202758** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	0.48	10								J
Methylene Chloride	0.26	3.0								J
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	0.14	1.0								J
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.0		10.00		89.7	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.8	70	130			
Surr: Dibromofluoromethane	9.1		10.00		90.9	70	130			
Surr: Toluene-d8	9.5		10.00		94.9	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **W38511**	RunNo: **38511**
Prep Date:	Analysis Date: **11/7/2016**	SeqNo: **1202759** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	89.3	70	130			
Toluene	20	1.0	20.00	0	99.0	70	130			
Chlorobenzene	19	1.0	20.00	0	96.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **W38511**	RunNo: **38511**
Prep Date:	Analysis Date: **11/7/2016**	SeqNo: **1202759** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	19	1.0	20.00	0	93.2	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	90.5	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.3	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.1	70	130			
Surr: Dibromofluoromethane	9.2		10.00		91.8	70	130			
Surr: Toluene-d8	9.6		10.00		96.2	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **LCS-28386**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **28386**	RunNo: **38422**
Prep Date: **11/1/2016**	Analysis Date: **11/3/2016**	SeqNo: **1200437** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	58	10	100.0	0	58.1	42.9	100			
4-Chloro-3-methylphenol	140	10	200.0	0	70.2	36.2	110			
2-Chlorophenol	120	10	200.0	0	58.6	33.4	97.8			
1,4-Dichlorobenzene	48	10	100.0	0	48.0	32.8	79.3			
2,4-Dinitrotoluene	58	10	100.0	0	58.0	34.9	107			
N-Nitrosodi-n-propylamine	61	10	100.0	0	61.0	30.7	111			
4-Nitrophenol	97	10	200.0	0	48.5	15	91.9			
Pentachlorophenol	110	20	200.0	0	53.9	33.3	93.5			
Phenol	99	10	200.0	0	49.7	20.9	86.4			
Pyrene	59	10	100.0	0	58.9	45.6	111			
1,2,4-Trichlorobenzene	54	10	100.0	0	54.2	38.7	88.2			
Surr: 2-Fluorophenol	100		200.0		51.6	15	98.1			
Surr: Phenol-d5	110		200.0		52.6	15	80.7			
Surr: 2,4,6-Tribromophenol	120		200.0		62.3	15	112			
Surr: Nitrobenzene-d5	58		100.0		58.3	27.2	90.7			
Surr: 2-Fluorobiphenyl	53		100.0		53.5	23.3	85.6			
Surr: 4-Terphenyl-d14	51		100.0		50.7	27.6	107			

Sample ID **MB-28386**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28386**	RunNo: **38422**
Prep Date: **11/1/2016**	Analysis Date: **11/3/2016**	SeqNo: **1200438** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	8.7	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	6.5	10								J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**

06-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **MB-28386**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28386**	RunNo: **38422**
Prep Date: **11/1/2016**	Analysis Date: **11/3/2016**	SeqNo: **1200438** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	2.7	10								J
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	6.7	10								J
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1610E79**
06-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th QTR (MKTF)

Sample ID **MB-28386**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28386**	RunNo: **38422**
Prep Date: **11/1/2016**	Analysis Date: **11/3/2016**	SeqNo: **1200438** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	120		200.0		61.9	15	98.1			
Surr: Phenol-d5	120		200.0		58.0	15	80.7			
Surr: 2,4,6-Tribromophenol	140		200.0		70.0	15	112			
Surr: Nitrobenzene-d5	70		100.0		70.2	27.2	90.7			
Surr: 2-Fluorobiphenyl	62		100.0		61.9	23.3	85.6			
Surr: 4-Terphenyl-d14	54		100.0		54.1	27.6	107			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1610E79 RcptNo: 1

Received by/date: CM 10/29/16

Logged By: Anne Thorne 10/29/2016 8:40:00 AM Anne Thorne

Completed By: Anne Thorne 10/31/2016 Anne Thorne

Reviewed By: aJ 10/31/16

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☑ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
8. Are samples (except VOA and ONG) properly preserved? ~~Yes~~ ☑ No ☑ JC
9. Was preserved added to bottles? Yes ☑ ~~No~~ ☑ 10/31/16 NA ☐
10. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☑

12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
14. Is it clear what analyses were requested? Yes ☑ No ☐
15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: 24 (<2 or >12 unless noted)
Adjusted? yes
Checked by: JC

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: ____ Date ____
By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: ____
Client Instructions: ____

17. Additional remarks: For metals analysis: added 0.4mL HNO_3 to -002F for acceptable pH. 10/31/16 @ 1415 JC
18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
2	1.1	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2016 4TH QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☑ Yes ☐ No
Sample Temperature: 1.1

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1610E79	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS / ANIONS	WQCC METALS (TOTAL & DISSOLVED)		Air Bubbles (Y or N)
10/29/16	1105	WATER	FB102816	40ML VOA-6	HCL	-001			✓							✓					
				1L AMBER-1	NEAT	-001											✓				
				250ML AMBER-1	NEAT	-001			✓												
				500ML PLASTIC-1	HNO_3	-001													✓		
				125ML PLASTIC-1	HNO_3	-001												✓	✓		
				125ML PLASTIC-1	H_2SO_4	-001												✓			
				500ML PLASTIC-1	NEAT	-001													✓		
	1140		MKTF-29	40ML VOA 6	HCL	-002			✓							✓					
				1L AMBER-2	NEAT	-002											✓				
				250ML AMBER-1	NEAT	-002			✓												
				500ML PLASTIC-1	HNO_3	-002													✓		
				125ML PLASTIC-1	HNO_3	-002												✓	✓		

Date: 10/29/16 Time: 0840 Relinquished by: [signature]
Received by: [signature] Date: 10/29/16 Time: 0840

Date: Time: Relinquished by:
Received by: Date: Time:

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: WESTERN REFINING SW, INC. GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING RD GALLUP NM 87301

Phone #: 505-722-0231

email or Fax#: CHERYL.JOHNSON@WNR.COM

QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)

Accreditation: ☐ NELAP ☐ Other

EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: 2016 4TH QTR (MKTF)

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.1

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1610E79	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)		Air Bubbles (Y or N)
10/28/16	1140	WATER	MKTF-29	125 mL PLASTIC-1	H_2SO_4	-002												✓				
				500 mL PLASTIC-1	NEAT	-002													✓			
	1255		MKTF-27	40 mL VOA-6	HCL	-003			✓							✓						
				1 L AMBER-1	NEAT	-003											✓					
				250 mL AMBER-1	NEAT	-003			✓													
				500 mL PLASTIC-1	HNO_3	-003													✓			
				125 mL PLASTIC-1	HNO_3	-003												✓	✓			
				125 mL PLASTIC-1	H_2SO_4	-003												✓				
				500 mL PLASTIC-1	NEAT	-003													✓			
	1415		MKTF-28	40 mL VOA-6	HCL	-004			✓							✓						
				1 L AMBER-1	NEAT	-004											✓					
				250 mL AMBER-1	NEAT	-004			✓													

Date: 10/29/16 Time: 0840 Relinquished by:

Received by: Date Time 10/29/16 0840

Date: Time: Relinquished by:

Received by: Date Time

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2016 4TH QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.1

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1610E79
10/28/16	1415	WATER	MKTF-28	500 mL Plastic-1	HNO_3	-004
				125 mL Plastic-1	HNO_3	-004
				125 mL Plastic-1	H_2SO_4	-004
				500 mL Plastic-1	NEAT	-004
	1500		MKTF-24	40 mL VOA-6	HCL	-005
				40 mL VOA-3	HCL	-005
				1 L Amber-1	NEAT	-005
				250 mL Amber-1	NEAT	-005
				500 mL Plastic-1	HNO_3	-005
				125 mL Plastic-1	HNO_3	-005
				125 mL Plastic-1	H_2SO_4	-005
				500 mL Plastic-1	NEAT	-005

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC Metals	(TOTAL & DISSOLVED)	8011 (1,2-DIBROMOMETHANE)	Air Bubbles (Y or N)
												✓			
											✓	✓			
											✓				
												✓			
		✓							✓						
														✓	
										✓					
		✓													
												✓			
											✓	✓			
											✓				
												✓			

Date: 10/29/16 Time: 0840 Relinquished by:
Date: Time: Relinquished by:
Received by: Date: 10/29/16 Time: 0840
Received by: Date: Time:

Remarks:

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☒ EDD (Type) EXCEL

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Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.1

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Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1610E79	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED) BDII (1,2-DIBROMOMETHANE)	Air Bubbles (Y or N)
10/28/16	1530	WATER	MKTF-02	40 ML VOA-6	HCL	-006			✓							✓					
				40 ML VOA-3	HCL	-006														✓	
				1 L AMBER-1	NEAT	-006											✓				
				250ML AMBER-1	NEAT	-006			✓												
				500 ML PLASTIC-1	HNO_3	-006													✓		
				125 ML PLASTIC-1	HNO_3	-006												✓	✓		
				125 ML PLASTIC-1	H_2SO_4	-006												✓			
				500 ML PLASTIC-1	NEAT	-006													✓		
	1630		MKTF-30	40 ML VOA-6	HCL	-007			✓							✓					
				40ML VOA-3	HCL	-007														✓	
				1 LITER AMBER-1	NEAT	-007											✓				
				250ML AMBER-1	NEAT	-007			✓												

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
10/29/16	0840			10/29/16	0840	
Date:	Time:	Relinquished by:	Received by:	Date	Time	

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EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2016 4TH QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☑ Yes ☐ No
Sample Temperature: 1.1

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Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1610E79	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS / ANIONS	WQCC METALS	(TOTAL / DISSOLVED)		Air Bubbles (Y or N)
10/28/16	1630	WATER	MKTF-30	500 mL PLASTIC-1	HNO_3	001													✓			
				125 mL PLASTIC-1	HNO_3	002												✓	✓			
				125 mL PLASTIC-1	H_2SO_4	003												✓				
				500 mL PLASTIC-1	NEAT	004													✓			
	—	WATER	DUP01	40 mL VOA-6	HCL	005			✓							✓						
				1L AMBER-1	NEAT	006											✓					
				250 mL AMBER-1	NEAT	007			✓													
				500 mL PLASTIC-1	HNO_3	008													✓			
				125 mL PLASTIC-1	HNO_3	009												✓	✓			
				125 mL PLASTIC-1	H_2SO_4	010												✓				
				500 mL PLASTIC-1	NEAT	011													✓			
↓	—	WATER	TRIP BLANK	40 mL VOA-4	HCL	012										✓						

Date: 10/29/16 Time: 0840 Relinquished by: [signature]
Received by: [signature] Date: 10/29/16 Time: 0840

Date: Time: Relinquished by:
Received by: Date: Time:

Remarks:

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Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 13, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 4th QTR (MKTF) OrderNo.: 1611072

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 12 sample(s) on 11/1/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-31
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 9:45:00 AM
Lab ID: 1611072-001 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	0.0035	0.0033	0.010	J	µg/L	1	11/10/2016 1:39:33 PM	28583
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/3/2016 12:35:16 PM	28435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/3/2016 12:35:16 PM	28435
Surr: DNOP	108	0	77.1-144		%Rec	1	11/3/2016 12:35:16 PM	28435
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.16	0.025	0.050		mg/L	1	11/8/2016 12:41:10 PM	G38528
Surr: BFB	98.6	0	66.4-120		%Rec	1	11/8/2016 12:41:10 PM	G38528
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.050	0.10		mg/L	1	11/2/2016 5:46:31 PM	R38417
Chloride	720	5.1	50		mg/L	100	11/8/2016 4:31:46 PM	R38550
Bromide	4.6	0.87	2.0		mg/L	20	11/2/2016 5:58:56 PM	R38417
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/2/2016 5:46:31 PM	R38417
Sulfate	70	2.8	10		mg/L	20	11/2/2016 5:58:56 PM	R38417
Nitrate+Nitrite as N	ND	0.92	2.0		mg/L	10	11/8/2016 7:00:41 PM	R38550
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.13	0.0013	0.0020		mg/L	1	11/28/2016 12:38:16 PM	A38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 12:38:16 PM	A38985
Calcium	150	2.5	5.0		mg/L	5	11/28/2016 12:40:14 PM	A38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 12:38:16 PM	A38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 12:38:16 PM	A38985
Iron	0.020	0.020	0.020		mg/L	1	11/28/2016 12:38:16 PM	A38985
Magnesium	31	0.50	1.0		mg/L	1	11/28/2016 12:38:16 PM	A38985
Manganese	0.018	0.00032	0.0020		mg/L	1	11/28/2016 12:38:16 PM	A38985
Potassium	1.4	0.50	1.0		mg/L	1	11/28/2016 12:38:16 PM	A38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 12:38:16 PM	A38985
Sodium	540	5.0	10		mg/L	10	11/28/2016 7:37:09 PM	A38985
Zinc	ND	0.0028	0.010		mg/L	1	12/1/2016 4:00:27 PM	A39100
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.18	0.00079	0.0020		mg/L	1	11/17/2016 1:31:49 PM	28728
Cadmium	ND	0.0015	0.0020		mg/L	1	11/17/2016 1:31:49 PM	28728
Chromium	ND	0.0027	0.0060		mg/L	1	11/17/2016 1:31:49 PM	28728
Copper	ND	0.0030	0.0060		mg/L	1	11/18/2016 6:00:21 PM	28728
Iron	1.5	0.10	0.10	*	mg/L	5	12/8/2016 12:45:07 PM	28728
Manganese	0.11	0.00027	0.0020	*	mg/L	1	11/17/2016 1:31:49 PM	28728
Silver	ND	0.0015	0.0050		mg/L	1	11/17/2016 1:31:49 PM	28728
Zinc	0.0098	0.0027	0.010	J	mg/L	1	11/30/2016 7:31:30 PM	28879

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-31
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 9:45:00 AM
Lab ID: 1611072-001 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0026	0.00069	0.0050	J	mg/L	5	11/16/2016 8:21:44 PM	B38773
Lead	ND	0.00017	0.00050		mg/L	1	11/15/2016 6:02:52 PM	B38728
Selenium	0.010	0.0011	0.0050		mg/L	5	11/15/2016 6:05:55 PM	B38728
Uranium	0.043	0.00026	0.0025	*	mg/L	5	11/15/2016 6:05:55 PM	B38728
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0026	0.0011	0.0050	J	mg/L	5	11/17/2016 5:34:05 PM	28728
Lead	0.0031	0.000081	0.00050		mg/L	1	11/17/2016 3:21:45 PM	28728
Selenium	0.0064	0.0037	0.020	J	mg/L	20	11/17/2016 5:37:06 PM	28728
Uranium	0.041	0.00087	0.0025	*	mg/L	5	11/17/2016 5:34:05 PM	28728
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/15/2016 5:39:44 PM	28645
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Acenaphthylene	ND	2.4	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Aniline	ND	2.4	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Anthracene	ND	2.5	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Azobenzene	ND	2.7	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Benzoic acid	9.3	2.6	20	J	µg/L	1	11/8/2016 10:17:35 AM	28471
Benzyl alcohol	ND	3.0	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Bis(2-ethylhexyl)phthalate	6.8	2.6	10	J	µg/L	1	11/8/2016 10:17:35 AM	28471
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Butyl benzyl phthalate	2.9	2.5	10	J	µg/L	1	11/8/2016 10:17:35 AM	28471
Carbazole	ND	2.3	10		µg/L	1	11/8/2016 10:17:35 AM	28471
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/8/2016 10:17:35 AM	28471
4-Chloroaniline	ND	2.7	10		µg/L	1	11/8/2016 10:17:35 AM	28471
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/8/2016 10:17:35 AM	28471
2-Chlorophenol	ND	2.2	10		µg/L	1	11/8/2016 10:17:35 AM	28471
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Chrysene	ND	2.8	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 10:17:35 AM	28471

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

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Lab ID: 1611072-001 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	8.4	2.0	10	J	µg/L	1	11/8/2016 10:17:35 AM	28471
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Dibenzofuran	ND	2.5	10		µg/L	1	11/8/2016 10:17:35 AM	28471
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 10:17:35 AM	28471
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 10:17:35 AM	28471
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/8/2016 10:17:35 AM	28471
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Diethyl phthalate	ND	2.7	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 10:17:35 AM	28471
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/8/2016 10:17:35 AM	28471
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/8/2016 10:17:35 AM	28471
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/8/2016 10:17:35 AM	28471
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/8/2016 10:17:35 AM	28471
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/8/2016 10:17:35 AM	28471
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Fluoranthene	ND	2.6	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Fluorene	ND	2.7	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Hexachloroethane	ND	2.4	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Isophorone	ND	2.6	10		µg/L	1	11/8/2016 10:17:35 AM	28471
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 10:17:35 AM	28471
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 10:17:35 AM	28471
2-Methylphenol	ND	2.5	10		µg/L	1	11/8/2016 10:17:35 AM	28471
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/8/2016 10:17:35 AM	28471
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/8/2016 10:17:35 AM	28471
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/8/2016 10:17:35 AM	28471
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Naphthalene	ND	2.6	10		µg/L	1	11/8/2016 10:17:35 AM	28471
2-Nitroaniline	ND	2.8	10		µg/L	1	11/8/2016 10:17:35 AM	28471
3-Nitroaniline	ND	2.9	10		µg/L	1	11/8/2016 10:17:35 AM	28471
4-Nitroaniline	ND	2.6	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Nitrobenzene	ND	2.8	10		µg/L	1	11/8/2016 10:17:35 AM	28471
2-Nitrophenol	ND	2.4	10		µg/L	1	11/8/2016 10:17:35 AM	28471
4-Nitrophenol	ND	2.6	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Pentachlorophenol	ND	2.3	20		µg/L	1	11/8/2016 10:17:35 AM	28471
Phenanthrene	ND	2.6	10		µg/L	1	11/8/2016 10:17:35 AM	28471

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-31
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 9:45:00 AM
Lab ID: 1611072-001 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	ND	2.0	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Pyrene	ND	3.1	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Pyridine	ND	2.2	10		µg/L	1	11/8/2016 10:17:35 AM	28471
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 10:17:35 AM	28471
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/8/2016 10:17:35 AM	28471
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/8/2016 10:17:35 AM	28471
Surr: 2-Fluorophenol	26.3	0	15-98.1		%Rec	1	11/8/2016 10:17:35 AM	28471
Surr: Phenol-d5	23.8	0	15-80.7		%Rec	1	11/8/2016 10:17:35 AM	28471
Surr: 2,4,6-Tribromophenol	35.6	0	15-112		%Rec	1	11/8/2016 10:17:35 AM	28471
Surr: Nitrobenzene-d5	60.6	0	27.2-90.7		%Rec	1	11/8/2016 10:17:35 AM	28471
Surr: 2-Fluorobiphenyl	44.7	0	23.3-85.6		%Rec	1	11/8/2016 10:17:35 AM	28471
Surr: 4-Terphenyl-d14	37.6	0	27.6-107		%Rec	1	11/8/2016 10:17:35 AM	28471
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	0.48	0.096	1.0	J	µg/L	1	11/7/2016 2:37:44 PM	R38506
Toluene	0.15	0.12	1.0	J	µg/L	1	11/7/2016 2:37:44 PM	R38506
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
Methyl tert-butyl ether (MTBE)	70	0.21	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1,2-Dichloroethane (EDC)	21	0.12	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
Naphthalene	ND	0.093	2.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
Acetone	ND	4.9	10		µg/L	1	11/7/2016 2:37:44 PM	R38506
Bromobenzene	ND	0.098	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
Bromoform	ND	0.10	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
Bromomethane	ND	0.78	3.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
2-Butanone	ND	0.74	10		µg/L	1	11/7/2016 2:37:44 PM	R38506
Carbon disulfide	ND	0.60	10		µg/L	1	11/7/2016 2:37:44 PM	R38506
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
Chloroethane	ND	0.19	2.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
Chloroform	0.41	0.089	1.0	J	µg/L	1	11/7/2016 2:37:44 PM	R38506
Chloromethane	ND	0.21	3.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
cis-1,2-DCE	1.6	0.12	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-31
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 9:45:00 AM
Lab ID: 1611072-001 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
Dibromomethane	ND	0.12	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1,1-Dichloroethane	31	0.11	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1,1-Dichloroethene	57	0.11	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
2-Hexanone	ND	0.84	10		µg/L	1	11/7/2016 2:37:44 PM	R38506
Isopropylbenzene	0.71	0.10	1.0	J	µg/L	1	11/7/2016 2:37:44 PM	R38506
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/7/2016 2:37:44 PM	R38506
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
n-Butylbenzene	0.32	0.16	3.0	J	µg/L	1	11/7/2016 2:37:44 PM	R38506
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
sec-Butylbenzene	0.37	0.12	1.0	J	µg/L	1	11/7/2016 2:37:44 PM	R38506
Styrene	ND	0.11	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1,1,1-Trichloroethane	4.8	0.091	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1,1,2-Trichloroethane	2.2	0.13	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
Trichloroethene (TCE)	3.7	0.18	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/7/2016 2:37:44 PM	R38506
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/7/2016 2:37:44 PM	R38506

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-31
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 9:45:00 AM
Lab ID: 1611072-001 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	96.3	0	70-130		%Rec	1	11/7/2016 2:37:44 PM	R38506
Surr: 4-Bromofluorobenzene	92.6	0	70-130		%Rec	1	11/7/2016 2:37:44 PM	R38506
Surr: Dibromofluoromethane	102	0	70-130		%Rec	1	11/7/2016 2:37:44 PM	R38506
Surr: Toluene-d8	103	0	70-130		%Rec	1	11/7/2016 2:37:44 PM	R38506

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-40
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 11:00:00 AM
Lab ID: 1611072-002 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/3/2016 1:40:13 PM	28435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/3/2016 1:40:13 PM	28435
Surr: DNOP	114	0	77.1-144		%Rec	1	11/3/2016 1:40:13 PM	28435
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/8/2016 1:05:33 PM	G38528
Surr: BFB	86.5	0	66.4-120		%Rec	1	11/8/2016 1:05:33 PM	G38528
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	1.0	2.0		mg/L	20	11/2/2016 6:23:45 PM	R38417
Chloride	3700	25	250		mg/L	500	11/8/2016 4:44:10 PM	R38550
Bromide	ND	0.87	2.0		mg/L	20	11/2/2016 6:23:45 PM	R38417
Phosphorus, Orthophosphate (As P)	1.9	1.5	10	JH	mg/L	20	11/2/2016 6:23:45 PM	R38417
Sulfate	500	2.8	10		mg/L	20	11/2/2016 6:23:45 PM	R38417
Nitrate+Nitrite as N	ND	1.8	4.0		mg/L	20	11/8/2016 7:13:05 PM	R38550
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.10	0.0013	0.0020		mg/L	1	11/28/2016 12:42:14 PM	A38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 12:42:14 PM	A38985
Calcium	380	2.5	5.0		mg/L	5	11/28/2016 12:44:08 PM	A38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 12:42:14 PM	A38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 12:42:14 PM	A38985
Iron	0.045	0.020	0.020		mg/L	1	11/28/2016 12:42:14 PM	A38985
Magnesium	71	0.50	1.0		mg/L	1	11/28/2016 12:42:14 PM	A38985
Manganese	0.11	0.00032	0.0020	*	mg/L	1	11/28/2016 12:42:14 PM	A38985
Potassium	8.0	0.50	1.0		mg/L	1	11/28/2016 12:42:14 PM	A38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 12:42:14 PM	A38985
Sodium	2800	25	50		mg/L	50	11/28/2016 7:39:07 PM	A38985
Zinc	0.0029	0.0028	0.010	J	mg/L	1	12/1/2016 4:02:15 PM	A39100
EPA METHOD 200.7: TOTAL METALS							Analyst: **JLF**	
Barium	0.21	0.00079	0.0020		mg/L	1	11/30/2016 7:36:56 PM	28879
Cadmium	ND	0.0015	0.0020		mg/L	1	11/30/2016 7:36:56 PM	28879
Chromium	0.0028	0.0027	0.0060	J	mg/L	1	11/30/2016 7:36:56 PM	28879
Copper	ND	0.0030	0.0060		mg/L	1	11/30/2016 7:36:56 PM	28879
Iron	5.3	0.20	0.20	*	mg/L	10	11/30/2016 7:38:37 PM	28879
Manganese	0.26	0.00027	0.0020	*	mg/L	1	11/30/2016 7:36:56 PM	28879
Silver	ND	0.0015	0.0050		mg/L	1	11/30/2016 7:36:56 PM	28879
Zinc	0.019	0.0027	0.010		mg/L	1	11/30/2016 7:36:56 PM	28879
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0039	0.00069	0.0050	J	mg/L	5	11/16/2016 8:26:52 PM	B38773

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-40
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 11:00:00 AM
Lab ID: 1611072-002
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00084	0.0025		mg/L	5	11/15/2016 6:08:58 PM	B38728
Selenium	0.012	0.0021	0.010		mg/L	10	11/15/2016 6:12:01 PM	B38728
Uranium	0.060	0.00026	0.0025	*	mg/L	5	11/15/2016 6:08:58 PM	B38728
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0041	0.0011	0.0050	J	mg/L	5	11/17/2016 5:40:06 PM	28728
Lead	0.0084	0.00041	0.0025		mg/L	5	11/17/2016 5:40:06 PM	28728
Selenium	0.0082	0.0037	0.020	J	mg/L	20	11/17/2016 5:43:06 PM	28728
Uranium	0.060	0.00087	0.0025	*	mg/L	5	11/17/2016 5:40:06 PM	28728
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	0.000055	0.000053	0.00020	J	mg/L	1	11/15/2016 5:41:45 PM	28645
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Acenaphthylene	ND	2.4	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Aniline	ND	2.4	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Anthracene	ND	2.5	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Azobenzene	ND	2.7	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Benzoic acid	8.5	2.6	20	J	µg/L	1	11/8/2016 11:41:01 AM	28471
Benzyl alcohol	ND	3.0	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Bis(2-ethylhexyl)phthalate	6.6	2.6	10	J	µg/L	1	11/8/2016 11:41:01 AM	28471
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Butyl benzyl phthalate	2.8	2.5	10	J	µg/L	1	11/8/2016 11:41:01 AM	28471
Carbazole	ND	2.3	10		µg/L	1	11/8/2016 11:41:01 AM	28471
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/8/2016 11:41:01 AM	28471
4-Chloroaniline	ND	2.7	10		µg/L	1	11/8/2016 11:41:01 AM	28471
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/8/2016 11:41:01 AM	28471
2-Chlorophenol	ND	2.2	10		µg/L	1	11/8/2016 11:41:01 AM	28471
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Chrysene	ND	2.8	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Di-n-octyl phthalate	8.4	2.0	10	J	µg/L	1	11/8/2016 11:41:01 AM	28471

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-40
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 11:00:00 AM
Lab ID: 1611072-002 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Dibenzofuran	ND	2.5	10		µg/L	1	11/8/2016 11:41:01 AM	28471
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 11:41:01 AM	28471
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 11:41:01 AM	28471
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/8/2016 11:41:01 AM	28471
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Diethyl phthalate	ND	2.7	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 11:41:01 AM	28471
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/8/2016 11:41:01 AM	28471
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/8/2016 11:41:01 AM	28471
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/8/2016 11:41:01 AM	28471
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/8/2016 11:41:01 AM	28471
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/8/2016 11:41:01 AM	28471
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Fluoranthene	ND	2.6	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Fluorene	ND	2.7	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Hexachloroethane	ND	2.4	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Isophorone	ND	2.6	10		µg/L	1	11/8/2016 11:41:01 AM	28471
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 11:41:01 AM	28471
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 11:41:01 AM	28471
2-Methylphenol	ND	2.5	10		µg/L	1	11/8/2016 11:41:01 AM	28471
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/8/2016 11:41:01 AM	28471
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/8/2016 11:41:01 AM	28471
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/8/2016 11:41:01 AM	28471
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Naphthalene	ND	2.6	10		µg/L	1	11/8/2016 11:41:01 AM	28471
2-Nitroaniline	ND	2.8	10		µg/L	1	11/8/2016 11:41:01 AM	28471
3-Nitroaniline	ND	2.9	10		µg/L	1	11/8/2016 11:41:01 AM	28471
4-Nitroaniline	ND	2.6	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Nitrobenzene	ND	2.8	10		µg/L	1	11/8/2016 11:41:01 AM	28471
2-Nitrophenol	ND	2.4	10		µg/L	1	11/8/2016 11:41:01 AM	28471
4-Nitrophenol	ND	2.6	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Pentachlorophenol	ND	2.3	20		µg/L	1	11/8/2016 11:41:01 AM	28471
Phenanthrene	ND	2.6	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Phenol	ND	2.0	10		µg/L	1	11/8/2016 11:41:01 AM	28471

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-40
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 11:00:00 AM
Lab ID: 1611072-002 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	3.1	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Pyridine	ND	2.2	10		µg/L	1	11/8/2016 11:41:01 AM	28471
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 11:41:01 AM	28471
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/8/2016 11:41:01 AM	28471
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/8/2016 11:41:01 AM	28471
Surr: 2-Fluorophenol	19.7	0	15-98.1		%Rec	1	11/8/2016 11:41:01 AM	28471
Surr: Phenol-d5	18.6	0	15-80.7		%Rec	1	11/8/2016 11:41:01 AM	28471
Surr: 2,4,6-Tribromophenol	31.5	0	15-112		%Rec	1	11/8/2016 11:41:01 AM	28471
Surr: Nitrobenzene-d5	46.3	0	27.2-90.7		%Rec	1	11/8/2016 11:41:01 AM	28471
Surr: 2-Fluorobiphenyl	39.0	0	23.3-85.6		%Rec	1	11/8/2016 11:41:01 AM	28471
Surr: 4-Terphenyl-d14	39.6	0	27.6-107		%Rec	1	11/8/2016 11:41:01 AM	28471
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
Toluene	0.15	0.12	1.0	J	µg/L	1	11/7/2016 3:06:26 PM	R38506
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
Methyl tert-butyl ether (MTBE)	0.30	0.21	1.0	J	µg/L	1	11/7/2016 3:06:26 PM	R38506
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
1,2-Dichloroethane (EDC)	0.37	0.12	1.0	J	µg/L	1	11/7/2016 3:06:26 PM	R38506
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
Naphthalene	ND	0.093	2.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
Acetone	ND	4.9	10		µg/L	1	11/7/2016 3:06:26 PM	R38506
Bromobenzene	ND	0.098	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
Bromoform	ND	0.10	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
Bromomethane	ND	0.78	3.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
2-Butanone	ND	0.74	10		µg/L	1	11/7/2016 3:06:26 PM	R38506
Carbon disulfide	ND	0.60	10		µg/L	1	11/7/2016 3:06:26 PM	R38506
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
Chloroethane	ND	0.19	2.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
Chloroform	0.20	0.089	1.0	J	µg/L	1	11/7/2016 3:06:26 PM	R38506
Chloromethane	ND	0.21	3.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-40
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 11:00:00 AM
Lab ID: 1611072-002 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
Dibromomethane	ND	0.12	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
1,1-Dichloroethane	0.64	0.11	1.0	J	µg/L	1	11/7/2016 3:06:26 PM	R38506
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
2-Hexanone	ND	0.84	10		µg/L	1	11/7/2016 3:06:26 PM	R38506
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/7/2016 3:06:26 PM	R38506
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
Styrene	ND	0.11	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/7/2016 3:06:26 PM	R38506
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/7/2016 3:06:26 PM	R38506
Surr: 1,2-Dichloroethane-d4	100	0	70-130		%Rec	1	11/7/2016 3:06:26 PM	R38506

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Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 11:00:00 AM
Lab ID: 1611072-002
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 4-Bromofluorobenzene	96.1	0	70-130		%Rec	1	11/7/2016 3:06:26 PM	R38506
Surr: Dibromofluoromethane	101	0	70-130		%Rec	1	11/7/2016 3:06:26 PM	R38506
Surr: Toluene-d8	106	0	70-130		%Rec	1	11/7/2016 3:06:26 PM	R38506

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 12:00:00 PM
Lab ID: 1611072-003 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/3/2016 2:02:19 PM	28435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/3/2016 2:02:19 PM	28435
Surr: DNOP	110	0	77.1-144		%Rec	1	11/3/2016 2:02:19 PM	28435
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/8/2016 1:29:59 PM	G38528
Surr: BFB	88.8	0	66.4-120		%Rec	1	11/8/2016 1:29:59 PM	G38528
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	1.0	2.0		mg/L	20	11/2/2016 7:13:24 PM	R38417
Chloride	19000	100	1000		mg/L	2000	11/8/2016 5:09:00 PM	R38550
Bromide	13	4.4	10		mg/L	100	11/11/2016 6:22:47 PM	R38671
Phosphorus, Orthophosphate (As P)	ND	1.5	10	H	mg/L	20	11/2/2016 7:13:24 PM	R38417
Sulfate	1300	280	1000		mg/L	2000	11/8/2016 5:09:00 PM	R38550
Nitrate+Nitrite as N	62	9.2	20	*	mg/L	100	11/8/2016 7:25:30 PM	R38550
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.13	0.0066	0.010		mg/L	5	11/28/2016 12:55:37 PM	A38985
Cadmium	ND	0.0037	0.010		mg/L	5	11/28/2016 12:55:37 PM	A38985
Calcium	4700	50	100		mg/L	100	11/28/2016 7:43:15 PM	A38985
Chromium	ND	0.0088	0.030		mg/L	5	11/28/2016 12:55:37 PM	A38985
Copper	ND	0.020	0.030		mg/L	5	11/28/2016 12:55:37 PM	A38985
Iron	0.48	0.020	0.020	*	mg/L	1	11/28/2016 12:53:18 PM	A38985
Magnesium	680	5.0	10		mg/L	10	11/28/2016 7:41:05 PM	A38985
Manganese	19	0.032	0.20	*	mg/L	100	11/28/2016 7:43:15 PM	A38985
Potassium	19	0.50	1.0		mg/L	1	11/28/2016 12:53:18 PM	A38985
Silver	ND	0.014	0.025		mg/L	5	11/28/2016 12:55:37 PM	A38985
Sodium	8800	50	100		mg/L	100	11/28/2016 7:43:15 PM	A38985
Zinc	0.016	0.014	0.050	J	mg/L	5	12/5/2016 6:18:02 PM	A39164
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.18	0.00079	0.0020		mg/L	1	11/17/2016 1:40:53 PM	28728
Cadmium	ND	0.0015	0.0020		mg/L	1	11/17/2016 1:40:53 PM	28728
Chromium	ND	0.0027	0.0060		mg/L	1	11/17/2016 1:40:53 PM	28728
Copper	ND	0.015	0.030		mg/L	5	11/18/2016 6:50:44 PM	28728
Iron	2.2	0.10	0.10	*	mg/L	5	11/18/2016 6:50:44 PM	28728
Manganese	18	0.014	0.10	*	mg/L	50	11/18/2016 6:52:24 PM	28728
Silver	ND	0.0015	0.0050		mg/L	1	11/17/2016 1:40:53 PM	28728
Zinc	0.032	0.013	0.050	J	mg/L	5	12/8/2016 12:55:05 PM	28879
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	ND	0.050	0.050		mg/L	50	11/16/2016 8:37:08 PM	B38773

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 12:00:00 PM
Lab ID: 1611072-003 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.0034	0.010		mg/L	20	11/15/2016 6:18:07 PM	B38728
Selenium	ND	0.50	0.50		mg/L	50	11/16/2016 8:37:08 PM	B38773
Uranium	0.19	0.0026	0.025	*	mg/L	50	11/22/2016 1:23:34 PM	B38934
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.030	0.011	0.050	J*	mg/L	50	11/17/2016 6:01:12 PM	28728
Lead	ND	0.0041	0.025		mg/L	50	11/17/2016 6:01:12 PM	28728
Selenium	0.084	0.0094	0.050	*	mg/L	50	11/17/2016 6:01:12 PM	28728
Uranium	0.19	0.0087	0.025	*	mg/L	50	11/17/2016 6:01:12 PM	28728
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/15/2016 5:43:46 PM	28645
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Acenaphthylene	ND	2.4	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Aniline	ND	2.4	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Anthracene	ND	2.5	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Azobenzene	ND	2.7	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Benzoic acid	8.3	2.6	20	J	µg/L	1	11/8/2016 12:08:53 PM	28471
Benzyl alcohol	ND	3.0	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Bis(2-ethylhexyl)phthalate	6.3	2.6	10	J	µg/L	1	11/8/2016 12:08:53 PM	28471
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Butyl benzyl phthalate	2.8	2.5	10	J	µg/L	1	11/8/2016 12:08:53 PM	28471
Carbazole	ND	2.3	10		µg/L	1	11/8/2016 12:08:53 PM	28471
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/8/2016 12:08:53 PM	28471
4-Chloroaniline	ND	2.7	10		µg/L	1	11/8/2016 12:08:53 PM	28471
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/8/2016 12:08:53 PM	28471
2-Chlorophenol	ND	2.2	10		µg/L	1	11/8/2016 12:08:53 PM	28471
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Chrysene	ND	2.8	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Di-n-octyl phthalate	8.3	2.0	10	J	µg/L	1	11/8/2016 12:08:53 PM	28471

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 12:00:00 PM
Lab ID: 1611072-003 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Dibenzofuran	ND	2.5	10		µg/L	1	11/8/2016 12:08:53 PM	28471
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 12:08:53 PM	28471
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 12:08:53 PM	28471
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/8/2016 12:08:53 PM	28471
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Diethyl phthalate	ND	2.7	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 12:08:53 PM	28471
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/8/2016 12:08:53 PM	28471
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/8/2016 12:08:53 PM	28471
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/8/2016 12:08:53 PM	28471
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/8/2016 12:08:53 PM	28471
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/8/2016 12:08:53 PM	28471
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Fluoranthene	ND	2.6	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Fluorene	ND	2.7	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Hexachloroethane	ND	2.4	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Isophorone	ND	2.6	10		µg/L	1	11/8/2016 12:08:53 PM	28471
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 12:08:53 PM	28471
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 12:08:53 PM	28471
2-Methylphenol	ND	2.5	10		µg/L	1	11/8/2016 12:08:53 PM	28471
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/8/2016 12:08:53 PM	28471
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/8/2016 12:08:53 PM	28471
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/8/2016 12:08:53 PM	28471
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Naphthalene	ND	2.6	10		µg/L	1	11/8/2016 12:08:53 PM	28471
2-Nitroaniline	ND	2.8	10		µg/L	1	11/8/2016 12:08:53 PM	28471
3-Nitroaniline	ND	2.9	10		µg/L	1	11/8/2016 12:08:53 PM	28471
4-Nitroaniline	ND	2.6	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Nitrobenzene	ND	2.8	10		µg/L	1	11/8/2016 12:08:53 PM	28471
2-Nitrophenol	ND	2.4	10		µg/L	1	11/8/2016 12:08:53 PM	28471
4-Nitrophenol	ND	2.6	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Pentachlorophenol	ND	2.3	20		µg/L	1	11/8/2016 12:08:53 PM	28471
Phenanthrene	ND	2.6	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Phenol	ND	2.0	10		µg/L	1	11/8/2016 12:08:53 PM	28471

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 12:00:00 PM
Lab ID: 1611072-003 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	3.1	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Pyridine	ND	2.2	10		µg/L	1	11/8/2016 12:08:53 PM	28471
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 12:08:53 PM	28471
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/8/2016 12:08:53 PM	28471
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/8/2016 12:08:53 PM	28471
Surr: 2-Fluorophenol	21.0	0	15-98.1		%Rec	1	11/8/2016 12:08:53 PM	28471
Surr: Phenol-d5	17.6	0	15-80.7		%Rec	1	11/8/2016 12:08:53 PM	28471
Surr: 2,4,6-Tribromophenol	24.2	0	15-112		%Rec	1	11/8/2016 12:08:53 PM	28471
Surr: Nitrobenzene-d5	45.2	0	27.2-90.7		%Rec	1	11/8/2016 12:08:53 PM	28471
Surr: 2-Fluorobiphenyl	31.2	0	23.3-85.6		%Rec	1	11/8/2016 12:08:53 PM	28471
Surr: 4-Terphenyl-d14	24.1	0	27.6-107	S	%Rec	1	11/8/2016 12:08:53 PM	28471
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
Toluene	0.13	0.12	1.0	J	µg/L	1	11/7/2016 3:35:12 PM	R38506
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
Naphthalene	ND	0.093	2.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
Acetone	7.0	4.9	10	J	µg/L	1	11/7/2016 3:35:12 PM	R38506
Bromobenzene	ND	0.098	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
Bromoform	ND	0.10	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
Bromomethane	ND	0.78	3.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
2-Butanone	ND	0.74	10		µg/L	1	11/7/2016 3:35:12 PM	R38506
Carbon disulfide	ND	0.60	10		µg/L	1	11/7/2016 3:35:12 PM	R38506
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
Chloroethane	ND	0.19	2.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
Chloroform	0.10	0.089	1.0	J	µg/L	1	11/7/2016 3:35:12 PM	R38506
Chloromethane	ND	0.21	3.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 12:00:00 PM
Lab ID: 1611072-003 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
Dibromomethane	ND	0.12	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
2-Hexanone	ND	0.84	10		µg/L	1	11/7/2016 3:35:12 PM	R38506
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/7/2016 3:35:12 PM	R38506
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
Styrene	ND	0.11	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/7/2016 3:35:12 PM	R38506
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/7/2016 3:35:12 PM	R38506
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	1	11/7/2016 3:35:12 PM	R38506

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-43
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 12:00:00 PM
Lab ID: 1611072-003
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 4-Bromofluorobenzene	96.5	0	70-130		%Rec	1	11/7/2016 3:35:12 PM	R38506
Surr: Dibromofluoromethane	106	0	70-130		%Rec	1	11/7/2016 3:35:12 PM	R38506
Surr: Toluene-d8	105	0	70-130		%Rec	1	11/7/2016 3:35:12 PM	R38506

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 1:10:00 PM
Lab ID: 1611072-004 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	62	0.69	1.0		mg/L	1	11/3/2016 2:23:59 PM	28435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/3/2016 2:23:59 PM	28435
Surr: DNOP	114	0	77.1-144		%Rec	1	11/3/2016 2:23:59 PM	28435
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.11	0.025	0.050		mg/L	1	11/8/2016 1:54:28 PM	G38528
Surr: BFB	92.9	0	66.4-120		%Rec	1	11/8/2016 1:54:28 PM	G38528
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.25	0.50		mg/L	5	11/2/2016 7:25:49 PM	R38417
Chloride	900	2.5	25		mg/L	50	11/8/2016 5:21:24 PM	R38550
Bromide	3.9	0.22	0.50		mg/L	5	11/2/2016 7:25:49 PM	R38417
Phosphorus, Orthophosphate (As P)	0.43	0.38	2.5	JH	mg/L	5	11/2/2016 7:25:49 PM	R38417
Sulfate	110	0.71	2.5		mg/L	5	11/2/2016 7:25:49 PM	R38417
Nitrate+Nitrite as N	ND	0.92	2.0		mg/L	10	11/8/2016 7:37:55 PM	R38550
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.075	0.0013	0.0020		mg/L	1	11/28/2016 12:57:47 PM	A38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 12:57:47 PM	A38985
Calcium	20	0.50	1.0		mg/L	1	11/28/2016 12:57:47 PM	A38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 12:57:47 PM	A38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 12:57:47 PM	A38985
Iron	0.18	0.020	0.020		mg/L	1	11/28/2016 12:57:47 PM	A38985
Magnesium	2.6	0.50	1.0		mg/L	1	11/28/2016 12:57:47 PM	A38985
Manganese	0.30	0.00032	0.0020	*	mg/L	1	11/28/2016 12:57:47 PM	A38985
Potassium	1.7	0.50	1.0		mg/L	1	11/28/2016 12:57:47 PM	A38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 12:57:47 PM	A38985
Sodium	700	5.0	10		mg/L	10	11/28/2016 7:45:06 PM	A38985
Zinc	ND	0.0028	0.010		mg/L	1	12/1/2016 4:06:10 PM	A39100
EPA METHOD 200.7: TOTAL METALS							Analyst: **TES**	
Barium	0.11	0.00079	0.0020		mg/L	1	11/18/2016 6:57:21 PM	28728
Cadmium	ND	0.0015	0.0020		mg/L	1	11/18/2016 6:57:21 PM	28728
Chromium	ND	0.0027	0.0060		mg/L	1	11/18/2016 6:57:21 PM	28728
Copper	0.0052	0.0030	0.0060	J	mg/L	1	11/18/2016 6:57:21 PM	28728
Iron	1.3	0.10	0.10	*	mg/L	5	11/18/2016 6:59:04 PM	28728
Manganese	0.31	0.00027	0.0020	*	mg/L	1	11/18/2016 6:57:21 PM	28728
Silver	ND	0.0015	0.0050		mg/L	1	11/18/2016 6:57:21 PM	28728
Zinc	0.0078	0.0027	0.010	J	mg/L	1	11/30/2016 7:42:33 PM	28879
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0044	0.0014	0.010	J	mg/L	10	11/16/2016 8:42:17 PM	B38773

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 1:10:00 PM
Lab ID: 1611072-004 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00084	0.0025		mg/L	5	11/15/2016 6:21:10 PM	B38728
Selenium	0.012	0.0011	0.0050		mg/L	5	11/15/2016 6:21:10 PM	B38728
Uranium	0.013	0.00026	0.0025		mg/L	5	11/15/2016 6:21:10 PM	B38728
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0047	0.0011	0.0050	J	mg/L	5	11/17/2016 6:04:12 PM	28728
Lead	0.0028	0.000081	0.00050		mg/L	1	11/17/2016 3:39:51 PM	28728
Selenium	0.0095	0.0037	0.020	J	mg/L	20	11/17/2016 6:13:13 PM	28728
Uranium	0.014	0.00087	0.0025		mg/L	5	11/17/2016 6:04:12 PM	28728
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/15/2016 5:45:49 PM	28645
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	13	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Acenaphthylene	ND	12	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Aniline	ND	12	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Anthracene	ND	12	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Azobenzene	ND	13	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Benz(a)anthracene	ND	13	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Benzo(a)pyrene	ND	14	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Benzo(b)fluoranthene	ND	14	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Benzo(g,h,i)perylene	ND	13	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Benzo(k)fluoranthene	ND	15	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Benzoic acid	56	13	100	J	µg/L	1	11/8/2016 12:36:39 PM	28471
Benzyl alcohol	ND	15	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Bis(2-chloroethoxy)methane	ND	14	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Bis(2-chloroethyl)ether	ND	13	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Bis(2-chloroisopropyl)ether	ND	9.5	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Bis(2-ethylhexyl)phthalate	33	13	50	J	µg/L	1	11/8/2016 12:36:39 PM	28471
4-Bromophenyl phenyl ether	ND	13	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Butyl benzyl phthalate	ND	12	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Carbazole	ND	11	50		µg/L	1	11/8/2016 12:36:39 PM	28471
4-Chloro-3-methylphenol	ND	13	50		µg/L	1	11/8/2016 12:36:39 PM	28471
4-Chloroaniline	ND	14	50		µg/L	1	11/8/2016 12:36:39 PM	28471
2-Chloronaphthalene	ND	11	50		µg/L	1	11/8/2016 12:36:39 PM	28471
2-Chlorophenol	ND	11	50		µg/L	1	11/8/2016 12:36:39 PM	28471
4-Chlorophenyl phenyl ether	ND	13	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Chrysene	ND	14	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Di-n-butyl phthalate	ND	12	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Di-n-octyl phthalate	37	9.9	50	J	µg/L	1	11/8/2016 12:36:39 PM	28471

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 1:10:00 PM
Lab ID: 1611072-004 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	13	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Dibenzofuran	ND	12	50		µg/L	1	11/8/2016 12:36:39 PM	28471
1,2-Dichlorobenzene	ND	11	50		µg/L	1	11/8/2016 12:36:39 PM	28471
1,3-Dichlorobenzene	ND	11	50		µg/L	1	11/8/2016 12:36:39 PM	28471
1,4-Dichlorobenzene	ND	12	50		µg/L	1	11/8/2016 12:36:39 PM	28471
3,3´-Dichlorobenzidine	ND	12	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Diethyl phthalate	ND	14	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Dimethyl phthalate	ND	12	50		µg/L	1	11/8/2016 12:36:39 PM	28471
2,4-Dichlorophenol	ND	12	100		µg/L	1	11/8/2016 12:36:39 PM	28471
2,4-Dimethylphenol	ND	15	50		µg/L	1	11/8/2016 12:36:39 PM	28471
4,6-Dinitro-2-methylphenol	ND	9.0	100		µg/L	1	11/8/2016 12:36:39 PM	28471
2,4-Dinitrophenol	ND	14	100		µg/L	1	11/8/2016 12:36:39 PM	28471
2,4-Dinitrotoluene	ND	16	50		µg/L	1	11/8/2016 12:36:39 PM	28471
2,6-Dinitrotoluene	ND	14	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Fluoranthene	ND	13	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Fluorene	ND	14	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Hexachlorobenzene	ND	13	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Hexachlorobutadiene	ND	11	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Hexachlorocyclopentadiene	ND	11	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Hexachloroethane	ND	12	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Indeno(1,2,3-cd)pyrene	ND	15	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Isophorone	ND	13	50		µg/L	1	11/8/2016 12:36:39 PM	28471
1-Methylnaphthalene	190	15	50		µg/L	1	11/8/2016 12:36:39 PM	28471
2-Methylnaphthalene	ND	14	50		µg/L	1	11/8/2016 12:36:39 PM	28471
2-Methylphenol	ND	13	50		µg/L	1	11/8/2016 12:36:39 PM	28471
3+4-Methylphenol	ND	11	50		µg/L	1	11/8/2016 12:36:39 PM	28471
N-Nitrosodi-n-propylamine	ND	12	50		µg/L	1	11/8/2016 12:36:39 PM	28471
N-Nitrosodimethylamine	ND	11	50		µg/L	1	11/8/2016 12:36:39 PM	28471
N-Nitrosodiphenylamine	ND	12	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Naphthalene	16	13	50	J	µg/L	1	11/8/2016 12:36:39 PM	28471
2-Nitroaniline	ND	14	50		µg/L	1	11/8/2016 12:36:39 PM	28471
3-Nitroaniline	ND	15	50		µg/L	1	11/8/2016 12:36:39 PM	28471
4-Nitroaniline	ND	13	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Nitrobenzene	ND	14	50		µg/L	1	11/8/2016 12:36:39 PM	28471
2-Nitrophenol	ND	12	50		µg/L	1	11/8/2016 12:36:39 PM	28471
4-Nitrophenol	ND	13	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Pentachlorophenol	ND	12	100		µg/L	1	11/8/2016 12:36:39 PM	28471
Phenanthrene	ND	13	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Phenol	ND	9.9	50		µg/L	1	11/8/2016 12:36:39 PM	28471

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Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 1:10:00 PM
Lab ID: 1611072-004 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	15	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Pyridine	ND	11	50		µg/L	1	11/8/2016 12:36:39 PM	28471
1,2,4-Trichlorobenzene	ND	13	50		µg/L	1	11/8/2016 12:36:39 PM	28471
2,4,5-Trichlorophenol	ND	11	50		µg/L	1	11/8/2016 12:36:39 PM	28471
2,4,6-Trichlorophenol	ND	12	50		µg/L	1	11/8/2016 12:36:39 PM	28471
Surr: 2-Fluorophenol	24.9	0	15-98.1		%Rec	1	11/8/2016 12:36:39 PM	28471
Surr: Phenol-d5	21.4	0	15-80.7		%Rec	1	11/8/2016 12:36:39 PM	28471
Surr: 2,4,6-Tribromophenol	23.8	0	15-112		%Rec	1	11/8/2016 12:36:39 PM	28471
Surr: Nitrobenzene-d5	59.2	0	27.2-90.7		%Rec	1	11/8/2016 12:36:39 PM	28471
Surr: 2-Fluorobiphenyl	37.0	0	23.3-85.6		%Rec	1	11/8/2016 12:36:39 PM	28471
Surr: 4-Terphenyl-d14	45.1	0	27.6-107		%Rec	1	11/8/2016 12:36:39 PM	28471
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	3.4	0.096	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
Toluene	0.49	0.12	1.0	J	µg/L	1	11/7/2016 4:03:59 PM	R38506
Ethylbenzene	1.9	0.11	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
Methyl tert-butyl ether (MTBE)	0.67	0.21	1.0	J	µg/L	1	11/7/2016 4:03:59 PM	R38506
1,2,4-Trimethylbenzene	5.3	0.11	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
1,3,5-Trimethylbenzene	2.7	0.12	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
1,2-Dichloroethane (EDC)	1.1	0.12	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
Naphthalene	24	0.093	2.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
1-Methylnaphthalene	13	0.20	4.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
2-Methylnaphthalene	7.2	0.16	4.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
Acetone	30	4.9	10		µg/L	1	11/7/2016 4:03:59 PM	R38506
Bromobenzene	ND	0.098	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
Bromoform	ND	0.10	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
Bromomethane	ND	0.78	3.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
2-Butanone	10	0.74	10		µg/L	1	11/7/2016 4:03:59 PM	R38506
Carbon disulfide	ND	0.60	10		µg/L	1	11/7/2016 4:03:59 PM	R38506
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
Chloroethane	ND	0.19	2.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
Chloroform	ND	0.089	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
Chloromethane	ND	0.21	3.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506

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CLIENT: Western Refining Southwest, Gallup
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Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 1:10:00 PM
Lab ID: 1611072-004 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
Dibromomethane	ND	0.12	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
2-Hexanone	4.2	0.84	10	J	µg/L	1	11/7/2016 4:03:59 PM	R38506
Isopropylbenzene	0.54	0.10	1.0	J	µg/L	1	11/7/2016 4:03:59 PM	R38506
4-Isopropyltoluene	2.3	0.14	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
4-Methyl-2-pentanone	3.7	0.43	10	J	µg/L	1	11/7/2016 4:03:59 PM	R38506
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
n-Propylbenzene	0.68	0.13	1.0	J	µg/L	1	11/7/2016 4:03:59 PM	R38506
sec-Butylbenzene	0.34	0.12	1.0	J	µg/L	1	11/7/2016 4:03:59 PM	R38506
Styrene	ND	0.11	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/7/2016 4:03:59 PM	R38506
Xylenes, Total	27	0.37	1.5		µg/L	1	11/7/2016 4:03:59 PM	R38506
Surr: 1,2-Dichloroethane-d4	96.6	0	70-130		%Rec	1	11/7/2016 4:03:59 PM	R38506

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-42
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 1:10:00 PM
Lab ID: 1611072-004
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 4-Bromofluorobenzene	106	0	70-130		%Rec	1	11/7/2016 4:03:59 PM	R38506
Surr: Dibromofluoromethane	107	0	70-130		%Rec	1	11/7/2016 4:03:59 PM	R38506
Surr: Toluene-d8	103	0	70-130		%Rec	1	11/7/2016 4:03:59 PM	R38506

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 2:15:00 PM
Lab ID: 1611072-005 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	11/10/2016 1:54:33 PM	28583
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/3/2016 3:15:26 PM	28435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/3/2016 3:15:26 PM	28435
Surr: DNOP	110	0	77.1-144		%Rec	1	11/3/2016 3:15:26 PM	28435
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.92	0.025	0.050		mg/L	1	11/8/2016 2:43:27 PM	G38528
Surr: BFB	85.9	0	66.4-120		%Rec	1	11/8/2016 2:43:27 PM	G38528
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.16	0.050	0.10		mg/L	1	11/2/2016 7:50:38 PM	R38417
Chloride	420	2.5	25		mg/L	50	11/8/2016 5:33:48 PM	R38550
Bromide	3.1	0.87	2.0		mg/L	20	11/2/2016 8:03:03 PM	R38417
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/2/2016 7:50:38 PM	R38417
Sulfate	95	2.8	10		mg/L	20	11/2/2016 8:03:03 PM	R38417
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	11/2/2016 10:44:26 PM	R38417
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.051	0.0013	0.0020		mg/L	1	11/28/2016 1:01:49 PM	A38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 1:01:49 PM	A38985
Calcium	28	0.50	1.0		mg/L	1	11/28/2016 1:01:49 PM	A38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 1:01:49 PM	A38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 1:01:49 PM	A38985
Iron	0.050	0.020	0.020		mg/L	1	11/28/2016 1:01:49 PM	A38985
Magnesium	5.8	0.50	1.0		mg/L	1	11/28/2016 1:01:49 PM	A38985
Manganese	0.056	0.00032	0.0020	*	mg/L	1	11/28/2016 1:01:49 PM	A38985
Potassium	0.81	0.50	1.0	J	mg/L	1	11/28/2016 1:01:49 PM	A38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 1:01:49 PM	A38985
Sodium	630	5.0	10		mg/L	10	11/28/2016 7:46:53 PM	A38985
Zinc	0.0096	0.0028	0.010	J	mg/L	1	12/1/2016 4:07:59 PM	A39100
EPA METHOD 200.7: TOTAL METALS							Analyst: **TES**	
Barium	0.10	0.00079	0.0020		mg/L	1	11/18/2016 7:02:22 PM	28728
Cadmium	ND	0.0015	0.0020		mg/L	1	11/18/2016 7:02:22 PM	28728
Chromium	0.0028	0.0027	0.0060	J	mg/L	1	11/18/2016 7:02:22 PM	28728
Copper	0.0042	0.0030	0.0060	J	mg/L	1	11/18/2016 7:02:22 PM	28728
Iron	3.0	0.10	0.10	*	mg/L	5	11/18/2016 7:03:46 PM	28728
Manganese	0.13	0.00027	0.0020	*	mg/L	1	11/18/2016 7:02:22 PM	28728
Silver	ND	0.0015	0.0050		mg/L	1	11/18/2016 7:02:22 PM	28728
Zinc	0.012	0.0027	0.010		mg/L	1	11/30/2016 7:44:24 PM	28879

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 2:15:00 PM
Lab ID: 1611072-005 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0040	0.00069	0.0050	J	mg/L	5	11/16/2016 8:47:25 PM	B38773
Lead	ND	0.00084	0.0025		mg/L	5	11/15/2016 6:36:29 PM	B38728
Selenium	0.0069	0.0011	0.0050		mg/L	5	11/16/2016 8:47:25 PM	B38773
Uranium	0.059	0.00026	0.0025	*	mg/L	5	11/15/2016 6:36:29 PM	B38728
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0044	0.0011	0.0050	J	mg/L	5	11/17/2016 6:16:14 PM	28728
Lead	0.0033	0.000081	0.00050		mg/L	1	11/17/2016 3:48:52 PM	28728
Selenium	0.0060	0.0037	0.020	J	mg/L	20	11/17/2016 6:19:14 PM	28728
Uranium	0.059	0.00087	0.0025	*	mg/L	5	11/17/2016 6:16:14 PM	28728
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/15/2016 5:47:51 PM	28645
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Acenaphthylene	ND	2.4	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Aniline	ND	2.4	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Anthracene	ND	2.5	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Azobenzene	ND	2.7	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Benzoic acid	8.7	2.6	20	J	µg/L	1	11/8/2016 1:04:33 PM	28471
Benzyl alcohol	ND	3.0	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Bis(2-ethylhexyl)phthalate	6.8	2.6	10	J	µg/L	1	11/8/2016 1:04:33 PM	28471
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Butyl benzyl phthalate	2.8	2.5	10	J	µg/L	1	11/8/2016 1:04:33 PM	28471
Carbazole	ND	2.3	10		µg/L	1	11/8/2016 1:04:33 PM	28471
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/8/2016 1:04:33 PM	28471
4-Chloroaniline	ND	2.7	10		µg/L	1	11/8/2016 1:04:33 PM	28471
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/8/2016 1:04:33 PM	28471
2-Chlorophenol	ND	2.2	10		µg/L	1	11/8/2016 1:04:33 PM	28471
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Chrysene	ND	2.8	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 1:04:33 PM	28471

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 2:15:00 PM
Lab ID: 1611072-005 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	7.6	2.0	10	J	µg/L	1	11/8/2016 1:04:33 PM	28471
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Dibenzofuran	ND	2.5	10		µg/L	1	11/8/2016 1:04:33 PM	28471
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 1:04:33 PM	28471
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 1:04:33 PM	28471
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/8/2016 1:04:33 PM	28471
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Diethyl phthalate	ND	2.7	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 1:04:33 PM	28471
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/8/2016 1:04:33 PM	28471
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/8/2016 1:04:33 PM	28471
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/8/2016 1:04:33 PM	28471
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/8/2016 1:04:33 PM	28471
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/8/2016 1:04:33 PM	28471
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Fluoranthene	ND	2.6	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Fluorene	ND	2.7	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Hexachloroethane	ND	2.4	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Isophorone	ND	2.6	10		µg/L	1	11/8/2016 1:04:33 PM	28471
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 1:04:33 PM	28471
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 1:04:33 PM	28471
2-Methylphenol	ND	2.5	10		µg/L	1	11/8/2016 1:04:33 PM	28471
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/8/2016 1:04:33 PM	28471
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/8/2016 1:04:33 PM	28471
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/8/2016 1:04:33 PM	28471
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Naphthalene	ND	2.6	10		µg/L	1	11/8/2016 1:04:33 PM	28471
2-Nitroaniline	ND	2.8	10		µg/L	1	11/8/2016 1:04:33 PM	28471
3-Nitroaniline	ND	2.9	10		µg/L	1	11/8/2016 1:04:33 PM	28471
4-Nitroaniline	ND	2.6	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Nitrobenzene	ND	2.8	10		µg/L	1	11/8/2016 1:04:33 PM	28471
2-Nitrophenol	ND	2.4	10		µg/L	1	11/8/2016 1:04:33 PM	28471
4-Nitrophenol	ND	2.6	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Pentachlorophenol	ND	2.3	20		µg/L	1	11/8/2016 1:04:33 PM	28471
Phenanthrene	ND	2.6	10		µg/L	1	11/8/2016 1:04:33 PM	28471

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 2:15:00 PM
Lab ID: 1611072-005 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	ND	2.0	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Pyrene	ND	3.1	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Pyridine	ND	2.2	10		µg/L	1	11/8/2016 1:04:33 PM	28471
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 1:04:33 PM	28471
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/8/2016 1:04:33 PM	28471
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/8/2016 1:04:33 PM	28471
Surr: 2-Fluorophenol	44.8	0	15-98.1		%Rec	1	11/8/2016 1:04:33 PM	28471
Surr: Phenol-d5	36.4	0	15-80.7		%Rec	1	11/8/2016 1:04:33 PM	28471
Surr: 2,4,6-Tribromophenol	69.8	0	15-112		%Rec	1	11/8/2016 1:04:33 PM	28471
Surr: Nitrobenzene-d5	66.2	0	27.2-90.7		%Rec	1	11/8/2016 1:04:33 PM	28471
Surr: 2-Fluorobiphenyl	53.2	0	23.3-85.6		%Rec	1	11/8/2016 1:04:33 PM	28471
Surr: 4-Terphenyl-d14	59.7	0	27.6-107		%Rec	1	11/8/2016 1:04:33 PM	28471
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	0.49	0.096	1.0	J	µg/L	1	11/7/2016 5:01:22 PM	R38506
Toluene	ND	0.12	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
Methyl tert-butyl ether (MTBE)	630	2.1	10		µg/L	10	11/7/2016 4:32:42 PM	R38506
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
1,2-Dichloroethane (EDC)	20	0.12	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
Naphthalene	ND	0.093	2.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
Acetone	ND	4.9	10		µg/L	1	11/7/2016 5:01:22 PM	R38506
Bromobenzene	ND	0.098	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
Bromoform	ND	0.10	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
Bromomethane	ND	0.78	3.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
2-Butanone	ND	0.74	10		µg/L	1	11/7/2016 5:01:22 PM	R38506
Carbon disulfide	ND	0.60	10		µg/L	1	11/7/2016 5:01:22 PM	R38506
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
Chloroethane	ND	0.19	2.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
Chloroform	ND	0.089	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
Chloromethane	ND	0.21	3.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
cis-1,2-DCE	1.6	0.12	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 2:15:00 PM
Lab ID: 1611072-005 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
Dibromomethane	ND	0.12	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
1,1-Dichloroethane	15	0.11	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
1,1-Dichloroethene	30	0.11	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
2-Hexanone	ND	0.84	10		µg/L	1	11/7/2016 5:01:22 PM	R38506
Isopropylbenzene	0.22	0.10	1.0	J	µg/L	1	11/7/2016 5:01:22 PM	R38506
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/7/2016 5:01:22 PM	R38506
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
sec-Butylbenzene	0.86	0.12	1.0	J	µg/L	1	11/7/2016 5:01:22 PM	R38506
Styrene	ND	0.11	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
1,1,1-Trichloroethane	0.47	0.091	1.0	J	µg/L	1	11/7/2016 5:01:22 PM	R38506
1,1,2-Trichloroethane	1.6	0.13	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/7/2016 5:01:22 PM	R38506
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/7/2016 5:01:22 PM	R38506

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-32
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 2:15:00 PM
Lab ID: 1611072-005 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	96.3	0	70-130		%Rec	1	11/7/2016 5:01:22 PM	R38506
Surr: 4-Bromofluorobenzene	88.3	0	70-130		%Rec	1	11/7/2016 5:01:22 PM	R38506
Surr: Dibromofluoromethane	105	0	70-130		%Rec	1	11/7/2016 5:01:22 PM	R38506
Surr: Toluene-d8	106	0	70-130		%Rec	1	11/7/2016 5:01:22 PM	R38506

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB103116
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 3:15:00 PM
Lab ID: 1611072-006
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	11/10/2016 2:09:40 PM	28583
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/3/2016 3:37:02 PM	28435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/3/2016 3:37:02 PM	28435
Surr: DNOP	112	0	77.1-144		%Rec	1	11/3/2016 3:37:02 PM	28435
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/8/2016 3:08:00 PM	G38528
Surr: BFB	86.7	0	66.4-120		%Rec	1	11/8/2016 3:08:00 PM	G38528
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.050	0.10		mg/L	1	11/2/2016 2:27:56 PM	R38417
Chloride	0.12	0.051	0.50	J	mg/L	1	11/2/2016 2:27:56 PM	R38417
Bromide	ND	0.044	0.10		mg/L	1	11/2/2016 2:27:56 PM	R38417
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50		mg/L	1	11/2/2016 2:27:56 PM	R38417
Sulfate	ND	0.14	0.50		mg/L	1	11/2/2016 2:27:56 PM	R38417
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	11/9/2016 9:11:37 PM	R38595
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	ND	0.0013	0.0020		mg/L	1	11/28/2016 1:05:50 PM	A38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 1:05:50 PM	A38985
Calcium	ND	0.50	1.0		mg/L	1	11/28/2016 1:05:50 PM	A38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 1:05:50 PM	A38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 1:05:50 PM	A38985
Iron	ND	0.020	0.020		mg/L	1	11/28/2016 1:05:50 PM	A38985
Magnesium	ND	0.50	1.0		mg/L	1	11/28/2016 1:05:50 PM	A38985
Manganese	ND	0.00032	0.0020		mg/L	1	11/28/2016 1:05:50 PM	A38985
Potassium	ND	0.50	1.0		mg/L	1	11/28/2016 1:05:50 PM	A38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 1:05:50 PM	A38985
Sodium	1.1	0.50	1.0		mg/L	1	11/28/2016 1:05:50 PM	A38985
Zinc	ND	0.0028	0.010		mg/L	1	12/1/2016 4:09:46 PM	A39100
EPA METHOD 200.7: TOTAL METALS							Analyst: **TES**	
Barium	ND	0.00079	0.0020		mg/L	1	11/18/2016 7:08:09 PM	28728
Cadmium	ND	0.0015	0.0020		mg/L	1	11/18/2016 7:08:09 PM	28728
Chromium	ND	0.0027	0.0060		mg/L	1	11/18/2016 7:08:09 PM	28728
Copper	ND	0.0030	0.0060		mg/L	1	11/18/2016 7:08:09 PM	28728
Iron	ND	0.020	0.020		mg/L	1	11/18/2016 7:08:09 PM	28728
Manganese	ND	0.00027	0.0020		mg/L	1	11/18/2016 7:08:09 PM	28728
Silver	ND	0.0015	0.0050		mg/L	1	11/18/2016 7:08:09 PM	28728
Zinc	ND	0.0027	0.010		mg/L	1	11/18/2016 7:08:09 PM	28728

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB103116
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 3:15:00 PM
Lab ID: 1611072-006
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	ND	0.00014	0.0010		mg/L	1	11/16/2016 9:13:10 PM	B38773
Lead	ND	0.00017	0.00050		mg/L	1	11/14/2016 9:20:34 PM	C38697
Selenium	ND	0.00021	0.0010		mg/L	1	11/15/2016 6:42:35 PM	B38728
Uranium	0.000074	0.000051	0.00050	J	mg/L	1	11/14/2016 9:20:34 PM	C38697
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.00021	0.0010		mg/L	1	11/17/2016 3:51:52 PM	28728
Lead	ND	0.000081	0.00050		mg/L	1	11/17/2016 3:51:52 PM	28728
Selenium	ND	0.00019	0.0010		mg/L	1	11/17/2016 3:51:52 PM	28728
Uranium	ND	0.00017	0.00050		mg/L	1	11/17/2016 3:51:52 PM	28728
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/15/2016 6:16:07 PM	28670
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Acenaphthylene	ND	2.4	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Aniline	ND	2.4	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Anthracene	ND	2.5	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Azobenzene	ND	2.7	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Benzoic acid	12	2.6	20	J	µg/L	1	11/8/2016 1:32:29 PM	28471
Benzyl alcohol	ND	3.0	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Bis(2-ethylhexyl)phthalate	6.6	2.6	10	J	µg/L	1	11/8/2016 1:32:29 PM	28471
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Butyl benzyl phthalate	2.8	2.5	10	J	µg/L	1	11/8/2016 1:32:29 PM	28471
Carbazole	ND	2.3	10		µg/L	1	11/8/2016 1:32:29 PM	28471
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/8/2016 1:32:29 PM	28471
4-Chloroaniline	ND	2.7	10		µg/L	1	11/8/2016 1:32:29 PM	28471
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/8/2016 1:32:29 PM	28471
2-Chlorophenol	ND	2.2	10		µg/L	1	11/8/2016 1:32:29 PM	28471
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Chrysene	ND	2.8	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 1:32:29 PM	28471

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB103116
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 3:15:00 PM
Lab ID: 1611072-006
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	7.5	2.0	10	J	µg/L	1	11/8/2016 1:32:29 PM	28471
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Dibenzofuran	ND	2.5	10		µg/L	1	11/8/2016 1:32:29 PM	28471
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 1:32:29 PM	28471
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 1:32:29 PM	28471
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/8/2016 1:32:29 PM	28471
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Diethyl phthalate	ND	2.7	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 1:32:29 PM	28471
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/8/2016 1:32:29 PM	28471
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/8/2016 1:32:29 PM	28471
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/8/2016 1:32:29 PM	28471
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/8/2016 1:32:29 PM	28471
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/8/2016 1:32:29 PM	28471
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Fluoranthene	ND	2.6	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Fluorene	ND	2.7	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Hexachloroethane	ND	2.4	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Isophorone	ND	2.6	10		µg/L	1	11/8/2016 1:32:29 PM	28471
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 1:32:29 PM	28471
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 1:32:29 PM	28471
2-Methylphenol	ND	2.5	10		µg/L	1	11/8/2016 1:32:29 PM	28471
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/8/2016 1:32:29 PM	28471
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/8/2016 1:32:29 PM	28471
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/8/2016 1:32:29 PM	28471
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Naphthalene	ND	2.6	10		µg/L	1	11/8/2016 1:32:29 PM	28471
2-Nitroaniline	ND	2.8	10		µg/L	1	11/8/2016 1:32:29 PM	28471
3-Nitroaniline	ND	2.9	10		µg/L	1	11/8/2016 1:32:29 PM	28471
4-Nitroaniline	ND	2.6	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Nitrobenzene	ND	2.8	10		µg/L	1	11/8/2016 1:32:29 PM	28471
2-Nitrophenol	ND	2.4	10		µg/L	1	11/8/2016 1:32:29 PM	28471
4-Nitrophenol	ND	2.6	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Pentachlorophenol	ND	2.3	20		µg/L	1	11/8/2016 1:32:29 PM	28471
Phenanthrene	ND	2.6	10		µg/L	1	11/8/2016 1:32:29 PM	28471

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB103116
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 3:15:00 PM
Lab ID: 1611072-006
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	ND	2.0	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Pyrene	ND	3.1	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Pyridine	ND	2.2	10		µg/L	1	11/8/2016 1:32:29 PM	28471
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 1:32:29 PM	28471
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/8/2016 1:32:29 PM	28471
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/8/2016 1:32:29 PM	28471
Surr: 2-Fluorophenol	47.0	0	15-98.1		%Rec	1	11/8/2016 1:32:29 PM	28471
Surr: Phenol-d5	34.0	0	15-80.7		%Rec	1	11/8/2016 1:32:29 PM	28471
Surr: 2,4,6-Tribromophenol	60.6	0	15-112		%Rec	1	11/8/2016 1:32:29 PM	28471
Surr: Nitrobenzene-d5	60.4	0	27.2-90.7		%Rec	1	11/8/2016 1:32:29 PM	28471
Surr: 2-Fluorobiphenyl	50.8	0	23.3-85.6		%Rec	1	11/8/2016 1:32:29 PM	28471
Surr: 4-Terphenyl-d14	58.5	0	27.6-107		%Rec	1	11/8/2016 1:32:29 PM	28471
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Toluene	0.25	0.12	1.0	J	µg/L	1	11/7/2016 1:29:25 PM	R38506
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Naphthalene	ND	0.093	2.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Acetone	8.1	4.9	10	J	µg/L	1	11/7/2016 1:29:25 PM	R38506
Bromobenzene	ND	0.098	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Bromoform	ND	0.10	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Bromomethane	ND	0.78	3.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
2-Butanone	ND	0.74	10		µg/L	1	11/7/2016 1:29:25 PM	R38506
Carbon disulfide	ND	0.60	10		µg/L	1	11/7/2016 1:29:25 PM	R38506
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Chloroethane	ND	0.19	2.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Chloroform	ND	0.089	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Chloromethane	ND	0.21	3.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB103116
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 3:15:00 PM
Lab ID: 1611072-006
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Dibromomethane	ND	0.12	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
2-Hexanone	ND	0.84	10		µg/L	1	11/7/2016 1:29:25 PM	R38506
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/7/2016 1:29:25 PM	R38506
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Styrene	ND	0.11	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/7/2016 1:29:25 PM	R38506
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/7/2016 1:29:25 PM	R38506

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB103116
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 3:15:00 PM
Lab ID: 1611072-006
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	100	0	70-130		%Rec	1	11/7/2016 1:29:25 PM	R38506
Surr: 4-Bromofluorobenzene	91.9	0	70-130		%Rec	1	11/7/2016 1:29:25 PM	R38506
Surr: Dibromofluoromethane	106	0	70-130		%Rec	1	11/7/2016 1:29:25 PM	R38506
Surr: Toluene-d8	102	0	70-130		%Rec	1	11/7/2016 1:29:25 PM	R38506

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 3:40:00 PM
Lab ID: 1611072-007
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	11/10/2016 2:24:44 PM	28583
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/3/2016 3:59:09 PM	28435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/3/2016 3:59:09 PM	28435
Surr: DNOP	113	0	77.1-144		%Rec	1	11/3/2016 3:59:09 PM	28435
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/8/2016 3:32:31 PM	G38528
Surr: BFB	86.3	0	66.4-120		%Rec	1	11/8/2016 3:32:31 PM	G38528
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.26	0.050	0.10		mg/L	1	11/2/2016 2:52:46 PM	R38417
Chloride	730	5.1	50		mg/L	100	11/8/2016 5:46:13 PM	R38550
Bromide	5.4	0.87	2.0		mg/L	20	11/2/2016 3:05:10 PM	R38417
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50		mg/L	1	11/2/2016 2:52:46 PM	R38417
Sulfate	64	2.8	10		mg/L	20	11/2/2016 3:05:10 PM	R38417
Nitrate+Nitrite as N	5.4	0.46	1.0		mg/L	5	11/9/2016 9:24:02 PM	R38595
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.058	0.0013	0.0020		mg/L	1	11/28/2016 1:09:24 PM	A38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 1:09:24 PM	A38985
Calcium	12	0.50	1.0		mg/L	1	11/28/2016 1:09:24 PM	A38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 1:09:24 PM	A38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 1:09:24 PM	A38985
Iron	0.052	0.020	0.020		mg/L	1	11/28/2016 1:09:24 PM	A38985
Magnesium	1.6	0.50	1.0		mg/L	1	11/28/2016 1:09:24 PM	A38985
Manganese	0.0043	0.00032	0.0020		mg/L	1	11/28/2016 1:09:24 PM	A38985
Potassium	1.7	0.50	1.0		mg/L	1	11/28/2016 1:09:24 PM	A38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 1:09:24 PM	A38985
Sodium	650	5.0	10		mg/L	10	11/28/2016 7:48:39 PM	A38985
Zinc	ND	0.0028	0.010		mg/L	1	12/1/2016 4:11:24 PM	A39100
EPA METHOD 200.7: TOTAL METALS							Analyst: **TES**	
Barium	0.094	0.00079	0.0020		mg/L	1	11/18/2016 7:13:08 PM	28728
Cadmium	ND	0.0015	0.0020		mg/L	1	11/18/2016 7:13:08 PM	28728
Chromium	ND	0.0027	0.0060		mg/L	1	11/18/2016 7:13:08 PM	28728
Copper	ND	0.0030	0.0060		mg/L	1	11/18/2016 7:13:08 PM	28728
Iron	1.8	0.10	0.10	*	mg/L	5	11/18/2016 7:17:48 PM	28728
Manganese	0.088	0.00027	0.0020	*	mg/L	1	11/18/2016 7:13:08 PM	28728
Silver	ND	0.0015	0.0050		mg/L	1	11/18/2016 7:13:08 PM	28728
Zinc	0.011	0.0027	0.010		mg/L	1	11/30/2016 7:46:09 PM	28879

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 3:40:00 PM
Lab ID: 1611072-007
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0054	0.0028	0.020	J	mg/L	20	11/22/2016 1:26:38 PM	B38934
Lead	ND	0.00084	0.0025		mg/L	5	11/15/2016 6:45:39 PM	B38728
Selenium	0.050	0.0011	0.0050	*	mg/L	5	11/15/2016 6:45:39 PM	B38728
Uranium	0.013	0.00026	0.0025		mg/L	5	11/15/2016 6:45:39 PM	B38728
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0064	0.0042	0.020	J	mg/L	20	11/17/2016 6:31:19 PM	28728
Lead	0.0029	0.000081	0.00050		mg/L	1	11/17/2016 3:54:53 PM	28728
Selenium	0.045	0.00094	0.0050		mg/L	5	11/17/2016 6:28:18 PM	28728
Uranium	0.017	0.00017	0.00050		mg/L	1	11/17/2016 3:54:53 PM	28728
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/15/2016 6:18:07 PM	28670
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Acenaphthylene	ND	2.4	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Aniline	ND	2.4	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Anthracene	ND	2.5	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Azobenzene	ND	2.7	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Benzoic acid	13	2.6	20	J	µg/L	1	11/8/2016 2:00:23 PM	28471
Benzyl alcohol	ND	3.0	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Bis(2-ethylhexyl)phthalate	6.5	2.6	10	J	µg/L	1	11/8/2016 2:00:23 PM	28471
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Carbazole	ND	2.3	10		µg/L	1	11/8/2016 2:00:23 PM	28471
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/8/2016 2:00:23 PM	28471
4-Chloroaniline	ND	2.7	10		µg/L	1	11/8/2016 2:00:23 PM	28471
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/8/2016 2:00:23 PM	28471
2-Chlorophenol	ND	2.2	10		µg/L	1	11/8/2016 2:00:23 PM	28471
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Chrysene	ND	2.8	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 2:00:23 PM	28471

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 3:40:00 PM
Lab ID: 1611072-007 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	6.7	2.0	10	J	µg/L	1	11/8/2016 2:00:23 PM	28471
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Dibenzofuran	ND	2.5	10		µg/L	1	11/8/2016 2:00:23 PM	28471
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 2:00:23 PM	28471
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 2:00:23 PM	28471
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/8/2016 2:00:23 PM	28471
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Diethyl phthalate	ND	2.7	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 2:00:23 PM	28471
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/8/2016 2:00:23 PM	28471
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/8/2016 2:00:23 PM	28471
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/8/2016 2:00:23 PM	28471
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/8/2016 2:00:23 PM	28471
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/8/2016 2:00:23 PM	28471
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Fluoranthene	ND	2.6	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Fluorene	ND	2.7	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Hexachloroethane	ND	2.4	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Isophorone	ND	2.6	10		µg/L	1	11/8/2016 2:00:23 PM	28471
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 2:00:23 PM	28471
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 2:00:23 PM	28471
2-Methylphenol	ND	2.5	10		µg/L	1	11/8/2016 2:00:23 PM	28471
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/8/2016 2:00:23 PM	28471
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/8/2016 2:00:23 PM	28471
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/8/2016 2:00:23 PM	28471
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Naphthalene	ND	2.6	10		µg/L	1	11/8/2016 2:00:23 PM	28471
2-Nitroaniline	ND	2.8	10		µg/L	1	11/8/2016 2:00:23 PM	28471
3-Nitroaniline	ND	2.9	10		µg/L	1	11/8/2016 2:00:23 PM	28471
4-Nitroaniline	ND	2.6	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Nitrobenzene	ND	2.8	10		µg/L	1	11/8/2016 2:00:23 PM	28471
2-Nitrophenol	ND	2.4	10		µg/L	1	11/8/2016 2:00:23 PM	28471
4-Nitrophenol	ND	2.6	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Pentachlorophenol	ND	2.3	20		µg/L	1	11/8/2016 2:00:23 PM	28471
Phenanthrene	ND	2.6	10		µg/L	1	11/8/2016 2:00:23 PM	28471

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 3:40:00 PM
Lab ID: 1611072-007 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	ND	2.0	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Pyrene	ND	3.1	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Pyridine	ND	2.2	10		µg/L	1	11/8/2016 2:00:23 PM	28471
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 2:00:23 PM	28471
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/8/2016 2:00:23 PM	28471
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/8/2016 2:00:23 PM	28471
Surr: 2-Fluorophenol	31.6	0	15-98.1		%Rec	1	11/8/2016 2:00:23 PM	28471
Surr: Phenol-d5	26.4	0	15-80.7		%Rec	1	11/8/2016 2:00:23 PM	28471
Surr: 2,4,6-Tribromophenol	57.9	0	15-112		%Rec	1	11/8/2016 2:00:23 PM	28471
Surr: Nitrobenzene-d5	66.4	0	27.2-90.7		%Rec	1	11/8/2016 2:00:23 PM	28471
Surr: 2-Fluorobiphenyl	50.3	0	23.3-85.6		%Rec	1	11/8/2016 2:00:23 PM	28471
Surr: 4-Terphenyl-d14	53.3	0	27.6-107		%Rec	1	11/8/2016 2:00:23 PM	28471
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
Toluene	ND	0.12	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
Methyl tert-butyl ether (MTBE)	0.91	0.21	1.0	J	µg/L	1	11/7/2016 5:30:12 PM	R38506
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
1,2-Dichloroethane (EDC)	2.4	0.12	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
Naphthalene	ND	0.093	2.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
Acetone	ND	4.9	10		µg/L	1	11/7/2016 5:30:12 PM	R38506
Bromobenzene	ND	0.098	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
Bromoform	ND	0.10	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
Bromomethane	ND	0.78	3.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
2-Butanone	ND	0.74	10		µg/L	1	11/7/2016 5:30:12 PM	R38506
Carbon disulfide	ND	0.60	10		µg/L	1	11/7/2016 5:30:12 PM	R38506
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
Chloroethane	ND	0.19	2.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
Chloroform	0.14	0.089	1.0	J	µg/L	1	11/7/2016 5:30:12 PM	R38506
Chloromethane	ND	0.21	3.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 3:40:00 PM
Lab ID: 1611072-007 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
Dibromomethane	ND	0.12	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
1,1-Dichloroethane	2.7	0.11	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
1,1-Dichloroethene	5.4	0.11	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
2-Hexanone	ND	0.84	10		µg/L	1	11/7/2016 5:30:12 PM	R38506
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/7/2016 5:30:12 PM	R38506
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
Styrene	ND	0.11	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
1,1,2-Trichloroethane	0.55	0.13	1.0	J	µg/L	1	11/7/2016 5:30:12 PM	R38506
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/7/2016 5:30:12 PM	R38506
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/7/2016 5:30:12 PM	R38506

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-41
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016 3:40:00 PM
Lab ID: 1611072-007
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	11/7/2016 5:30:12 PM	R38506
Surr: 4-Bromofluorobenzene	97.8	0	70-130		%Rec	1	11/7/2016 5:30:12 PM	R38506
Surr: Dibromofluoromethane	103	0	70-130		%Rec	1	11/7/2016 5:30:12 PM	R38506
Surr: Toluene-d8	102	0	70-130		%Rec	1	11/7/2016 5:30:12 PM	R38506

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP02
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016
Lab ID: 1611072-008
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	11/10/2016 2:58:04 PM	28583
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/3/2016 4:20:57 PM	28435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/3/2016 4:20:57 PM	28435
Surr: DNOP	113	0	77.1-144		%Rec	1	11/3/2016 4:20:57 PM	28435
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.17	0.025	0.050		mg/L	1	11/8/2016 3:56:55 PM	G38528
Surr: BFB	94.8	0	66.4-120		%Rec	1	11/8/2016 3:56:55 PM	G38528
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	ND	0.050	0.10		mg/L	1	11/2/2016 3:17:35 PM	R38417
Chloride	690	5.1	50		mg/L	100	11/8/2016 6:23:27 PM	R38550
Bromide	4.2	0.87	2.0		mg/L	20	11/2/2016 3:29:59 PM	R38417
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50		mg/L	1	11/2/2016 3:17:35 PM	R38417
Sulfate	69	2.8	10		mg/L	20	11/2/2016 3:29:59 PM	R38417
Nitrate+Nitrite as N	ND	0.92	2.0		mg/L	10	11/8/2016 7:50:20 PM	R38550
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.13	0.0013	0.0020		mg/L	1	11/28/2016 1:20:28 PM	A38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 1:20:28 PM	A38985
Calcium	150	2.5	5.0		mg/L	5	11/28/2016 1:22:22 PM	A38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 1:20:28 PM	A38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 1:20:28 PM	A38985
Iron	0.025	0.020	0.020		mg/L	1	11/28/2016 1:20:28 PM	A38985
Magnesium	31	0.50	1.0		mg/L	1	11/28/2016 1:20:28 PM	A38985
Manganese	0.019	0.00032	0.0020		mg/L	1	11/28/2016 1:20:28 PM	A38985
Potassium	1.5	0.50	1.0		mg/L	1	11/28/2016 1:20:28 PM	A38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 1:20:28 PM	A38985
Sodium	550	5.0	10		mg/L	10	11/28/2016 7:50:27 PM	A38985
Zinc	0.0039	0.0028	0.010	J	mg/L	1	12/1/2016 4:19:20 PM	A39100
EPA METHOD 200.7: TOTAL METALS							Analyst: **TES**	
Barium	0.15	0.00079	0.0020		mg/L	1	11/18/2016 7:21:04 PM	28728
Cadmium	ND	0.0015	0.0020		mg/L	1	11/18/2016 7:21:04 PM	28728
Chromium	ND	0.0027	0.0060		mg/L	1	11/18/2016 7:21:04 PM	28728
Copper	ND	0.0030	0.0060		mg/L	1	11/18/2016 7:21:04 PM	28728
Iron	1.2	0.10	0.10	*	mg/L	5	11/18/2016 7:22:50 PM	28728
Manganese	0.10	0.00027	0.0020	*	mg/L	1	11/18/2016 7:21:04 PM	28728
Silver	ND	0.0015	0.0050		mg/L	1	11/18/2016 7:21:04 PM	28728
Zinc	0.011	0.0027	0.010		mg/L	1	11/30/2016 7:54:51 PM	28879

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP02
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016
Lab ID: 1611072-008
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0025	0.00069	0.0050	J	mg/L	5	11/18/2016 5:42:46 PM	A38851
Lead	ND	0.00084	0.0025		mg/L	5	11/15/2016 6:51:45 PM	B38728
Selenium	0.0085	0.0011	0.0050		mg/L	5	11/15/2016 6:51:45 PM	B38728
Uranium	0.041	0.00026	0.0025	*	mg/L	5	11/15/2016 6:51:45 PM	B38728
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0037	0.0011	0.0050	J	mg/L	5	11/17/2016 6:34:19 PM	28728
Lead	0.0029	0.000081	0.00050		mg/L	1	11/17/2016 3:57:53 PM	28728
Selenium	0.0068	0.0037	0.020	J	mg/L	20	11/17/2016 6:37:19 PM	28728
Uranium	0.038	0.00087	0.0025	*	mg/L	5	11/17/2016 6:34:19 PM	28728
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/15/2016 6:20:08 PM	28670
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Acenaphthylene	ND	2.4	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Aniline	ND	2.4	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Anthracene	ND	2.5	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Azobenzene	ND	2.7	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Benzoic acid	7.8	2.6	20	J	µg/L	1	11/8/2016 2:27:53 PM	28471
Benzyl alcohol	ND	3.0	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Bis(2-ethylhexyl)phthalate	6.5	2.6	10	J	µg/L	1	11/8/2016 2:27:53 PM	28471
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Butyl benzyl phthalate	2.6	2.5	10	J	µg/L	1	11/8/2016 2:27:53 PM	28471
Carbazole	ND	2.3	10		µg/L	1	11/8/2016 2:27:53 PM	28471
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/8/2016 2:27:53 PM	28471
4-Chloroaniline	ND	2.7	10		µg/L	1	11/8/2016 2:27:53 PM	28471
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/8/2016 2:27:53 PM	28471
2-Chlorophenol	ND	2.2	10		µg/L	1	11/8/2016 2:27:53 PM	28471
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Chrysene	ND	2.8	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 2:27:53 PM	28471

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP02
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016
Lab ID: 1611072-008
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	7.1	2.0	10	J	µg/L	1	11/8/2016 2:27:53 PM	28471
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Dibenzofuran	ND	2.5	10		µg/L	1	11/8/2016 2:27:53 PM	28471
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 2:27:53 PM	28471
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 2:27:53 PM	28471
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/8/2016 2:27:53 PM	28471
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Diethyl phthalate	ND	2.7	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 2:27:53 PM	28471
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/8/2016 2:27:53 PM	28471
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/8/2016 2:27:53 PM	28471
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/8/2016 2:27:53 PM	28471
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/8/2016 2:27:53 PM	28471
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/8/2016 2:27:53 PM	28471
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Fluoranthene	ND	2.6	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Fluorene	ND	2.7	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Hexachloroethane	ND	2.4	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Isophorone	ND	2.6	10		µg/L	1	11/8/2016 2:27:53 PM	28471
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 2:27:53 PM	28471
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 2:27:53 PM	28471
2-Methylphenol	ND	2.5	10		µg/L	1	11/8/2016 2:27:53 PM	28471
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/8/2016 2:27:53 PM	28471
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/8/2016 2:27:53 PM	28471
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/8/2016 2:27:53 PM	28471
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Naphthalene	ND	2.6	10		µg/L	1	11/8/2016 2:27:53 PM	28471
2-Nitroaniline	ND	2.8	10		µg/L	1	11/8/2016 2:27:53 PM	28471
3-Nitroaniline	ND	2.9	10		µg/L	1	11/8/2016 2:27:53 PM	28471
4-Nitroaniline	ND	2.6	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Nitrobenzene	ND	2.8	10		µg/L	1	11/8/2016 2:27:53 PM	28471
2-Nitrophenol	ND	2.4	10		µg/L	1	11/8/2016 2:27:53 PM	28471
4-Nitrophenol	ND	2.6	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Pentachlorophenol	ND	2.3	20		µg/L	1	11/8/2016 2:27:53 PM	28471
Phenanthrene	ND	2.6	10		µg/L	1	11/8/2016 2:27:53 PM	28471

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP02
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016
Lab ID: 1611072-008
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	ND	2.0	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Pyrene	ND	3.1	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Pyridine	ND	2.2	10		µg/L	1	11/8/2016 2:27:53 PM	28471
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 2:27:53 PM	28471
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/8/2016 2:27:53 PM	28471
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/8/2016 2:27:53 PM	28471
Surr: 2-Fluorophenol	21.1	0	15-98.1		%Rec	1	11/8/2016 2:27:53 PM	28471
Surr: Phenol-d5	21.7	0	15-80.7		%Rec	1	11/8/2016 2:27:53 PM	28471
Surr: 2,4,6-Tribromophenol	33.6	0	15-112		%Rec	1	11/8/2016 2:27:53 PM	28471
Surr: Nitrobenzene-d5	50.6	0	27.2-90.7		%Rec	1	11/8/2016 2:27:53 PM	28471
Surr: 2-Fluorobiphenyl	39.3	0	23.3-85.6		%Rec	1	11/8/2016 2:27:53 PM	28471
Surr: 4-Terphenyl-d14	35.9	0	27.6-107		%Rec	1	11/8/2016 2:27:53 PM	28471
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	0.51	0.096	1.0	J	µg/L	1	11/7/2016 5:58:49 PM	R38506
Toluene	ND	0.12	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
Methyl tert-butyl ether (MTBE)	69	0.21	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1,2-Dichloroethane (EDC)	23	0.12	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
Naphthalene	ND	0.093	2.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
Acetone	ND	4.9	10		µg/L	1	11/7/2016 5:58:49 PM	R38506
Bromobenzene	ND	0.098	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
Bromoform	ND	0.10	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
Bromomethane	ND	0.78	3.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
2-Butanone	ND	0.74	10		µg/L	1	11/7/2016 5:58:49 PM	R38506
Carbon disulfide	ND	0.60	10		µg/L	1	11/7/2016 5:58:49 PM	R38506
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
Chloroethane	ND	0.19	2.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
Chloroform	0.43	0.089	1.0	J	µg/L	1	11/7/2016 5:58:49 PM	R38506
Chloromethane	ND	0.21	3.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
cis-1,2-DCE	1.6	0.12	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP02
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016
Lab ID: 1611072-008
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
Dibromomethane	ND	0.12	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1,1-Dichloroethane	31	0.11	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1,1-Dichloroethene	59	0.11	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
2-Hexanone	ND	0.84	10		µg/L	1	11/7/2016 5:58:49 PM	R38506
Isopropylbenzene	0.84	0.10	1.0	J	µg/L	1	11/7/2016 5:58:49 PM	R38506
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/7/2016 5:58:49 PM	R38506
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
n-Butylbenzene	0.34	0.16	3.0	J	µg/L	1	11/7/2016 5:58:49 PM	R38506
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
sec-Butylbenzene	0.41	0.12	1.0	J	µg/L	1	11/7/2016 5:58:49 PM	R38506
Styrene	ND	0.11	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1,1,1-Trichloroethane	4.9	0.091	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1,1,2-Trichloroethane	2.3	0.13	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
Trichloroethene (TCE)	3.5	0.18	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/7/2016 5:58:49 PM	R38506
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/7/2016 5:58:49 PM	R38506

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP02
Project: 2016 4th QTR (MKTF)
Collection Date: 10/31/2016
Lab ID: 1611072-008
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	98.9	0	70-130		%Rec	1	11/7/2016 5:58:49 PM	R38506
Surr: 4-Bromofluorobenzene	96.4	0	70-130		%Rec	1	11/7/2016 5:58:49 PM	R38506
Surr: Dibromofluoromethane	101	0	70-130		%Rec	1	11/7/2016 5:58:49 PM	R38506
Surr: Toluene-d8	102	0	70-130		%Rec	1	11/7/2016 5:58:49 PM	R38506

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 4th QTR (MKTF)
Collection Date:
Lab ID: 1611072-009
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/8/2016 4:21:17 PM	G38528
Surr: BFB	86.7	0	66.4-120		%Rec	1	11/8/2016 4:21:17 PM	G38528
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
Toluene	0.12	0.12	1.0	J	µg/L	1	11/7/2016 2:09:06 PM	R38506
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
Naphthalene	ND	0.093	2.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
Acetone	5.3	4.9	10	J	µg/L	1	11/7/2016 2:09:06 PM	R38506
Bromobenzene	ND	0.098	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
Bromoform	ND	0.10	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
Bromomethane	ND	0.78	3.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
2-Butanone	ND	0.74	10		µg/L	1	11/7/2016 2:09:06 PM	R38506
Carbon disulfide	ND	0.60	10		µg/L	1	11/7/2016 2:09:06 PM	R38506
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
Chloroethane	ND	0.19	2.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
Chloroform	0.12	0.089	1.0	J	µg/L	1	11/7/2016 2:09:06 PM	R38506
Chloromethane	ND	0.21	3.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
Dibromomethane	ND	0.12	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 4th QTR (MKTF)
Collection Date:
Lab ID: 1611072-009
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
2-Hexanone	ND	0.84	10		µg/L	1	11/7/2016 2:09:06 PM	R38506
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/7/2016 2:09:06 PM	R38506
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
Styrene	ND	0.11	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/7/2016 2:09:06 PM	R38506
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/7/2016 2:09:06 PM	R38506
Surr: 1,2-Dichloroethane-d4	96.3	0	70-130		%Rec	1	11/7/2016 2:09:06 PM	R38506
Surr: 4-Bromofluorobenzene	96.8	0	70-130		%Rec	1	11/7/2016 2:09:06 PM	R38506
Surr: Dibromofluoromethane	103	0	70-130		%Rec	1	11/7/2016 2:09:06 PM	R38506
Surr: Toluene-d8	102	0	70-130		%Rec	1	11/7/2016 2:09:06 PM	R38506

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 7:45:00 AM
Lab ID: 1611072-010 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/3/2016 4:42:36 PM	28435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/3/2016 4:42:36 PM	28435
Surr: DNOP	113	0	77.1-144		%Rec	1	11/3/2016 4:42:36 PM	28435
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/8/2016 4:45:38 PM	G38528
Surr: BFB	85.4	0	66.4-120		%Rec	1	11/8/2016 4:45:38 PM	G38528
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.32	0.25	0.50	J	mg/L	5	11/2/2016 3:42:24 PM	R38417
Chloride	150	1.0	10		mg/L	20	11/2/2016 3:54:49 PM	R38417
Bromide	1.1	0.22	0.50		mg/L	5	11/2/2016 3:42:24 PM	R38417
Phosphorus, Orthophosphate (As P)	1.2	0.38	2.5	J	mg/L	5	11/2/2016 3:42:24 PM	R38417
Sulfate	100	0.71	2.5		mg/L	5	11/2/2016 3:42:24 PM	R38417
Nitrate+Nitrite as N	0.81	0.46	1.0	J	mg/L	5	11/9/2016 9:36:26 PM	R38595
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.037	0.0013	0.0020		mg/L	1	11/28/2016 1:24:29 PM	A38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 1:24:29 PM	A38985
Calcium	5.7	0.50	1.0		mg/L	1	11/28/2016 1:24:29 PM	A38985
Chromium	0.0043	0.0018	0.0060	J	mg/L	1	11/28/2016 1:24:29 PM	A38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 1:24:29 PM	A38985
Iron	0.37	0.020	0.020	*	mg/L	1	11/28/2016 1:24:29 PM	A38985
Magnesium	ND	0.50	1.0		mg/L	1	11/28/2016 1:24:29 PM	A38985
Manganese	0.011	0.00032	0.0020		mg/L	1	11/28/2016 1:24:29 PM	A38985
Potassium	1.2	0.50	1.0		mg/L	1	11/28/2016 1:24:29 PM	A38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 1:24:29 PM	A38985
Sodium	440	2.5	5.0		mg/L	5	11/28/2016 1:26:33 PM	A38985
Zinc	0.0061	0.0028	0.010	J	mg/L	1	12/1/2016 4:21:06 PM	A39100
EPA METHOD 200.7: TOTAL METALS							Analyst: **TES**	
Barium	0.20	0.00079	0.0020		mg/L	1	11/18/2016 7:27:50 PM	28728
Cadmium	ND	0.0015	0.0020		mg/L	1	11/18/2016 7:27:50 PM	28728
Chromium	0.022	0.0027	0.0060		mg/L	1	11/18/2016 7:27:50 PM	28728
Copper	0.015	0.0030	0.0060		mg/L	1	11/18/2016 7:27:50 PM	28728
Iron	18	1.0	1.0	*	mg/L	50	11/18/2016 7:30:36 PM	28728
Manganese	0.38	0.00027	0.0020	*	mg/L	1	11/18/2016 7:27:50 PM	28728
Silver	ND	0.0015	0.0050		mg/L	1	11/18/2016 7:27:50 PM	28728
Zinc	0.074	0.0027	0.010		mg/L	1	11/30/2016 7:56:34 PM	28879
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0095	0.00069	0.0050		mg/L	5	11/18/2016 5:48:55 PM	A38851

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 7:45:00 AM
Lab ID: 1611072-010 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.0012	0.00084	0.0025	J	mg/L	5	11/18/2016 5:48:55 PM	A38851
Selenium	0.014	0.0011	0.0050		mg/L	5	11/18/2016 5:48:55 PM	A38851
Uranium	0.17	0.0010	0.010	*	mg/L	20	11/18/2016 5:51:58 PM	A38851
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.011	0.00021	0.0010	*	mg/L	1	11/17/2016 4:00:54 PM	28728
Lead	0.024	0.000081	0.00050	*	mg/L	1	11/17/2016 4:00:54 PM	28728
Selenium	0.013	0.0037	0.020	J	mg/L	20	11/17/2016 6:43:20 PM	28728
Uranium	0.18	0.0017	0.0050	*	mg/L	10	11/17/2016 6:40:20 PM	28728
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	0.000083	0.000053	0.00020	J	mg/L	1	11/15/2016 6:26:18 PM	28670
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	26	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Acenaphthylene	ND	24	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Aniline	ND	24	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Anthracene	ND	25	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Azobenzene	ND	27	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Benz(a)anthracene	ND	26	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Benzo(a)pyrene	ND	27	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Benzo(b)fluoranthene	ND	29	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Benzo(g,h,i)perylene	ND	26	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Benzo(k)fluoranthene	ND	30	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Benzoic acid	110	26	200	J	µg/L	1	11/8/2016 2:55:46 PM	28471
Benzyl alcohol	ND	30	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Bis(2-chloroethoxy)methane	ND	28	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Bis(2-chloroethyl)ether	ND	27	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Bis(2-chloroisopropyl)ether	ND	19	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Bis(2-ethylhexyl)phthalate	66	26	100	J	µg/L	1	11/8/2016 2:55:46 PM	28471
4-Bromophenyl phenyl ether	ND	26	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Butyl benzyl phthalate	27	25	100	J	µg/L	1	11/8/2016 2:55:46 PM	28471
Carbazole	ND	23	100		µg/L	1	11/8/2016 2:55:46 PM	28471
4-Chloro-3-methylphenol	ND	26	100		µg/L	1	11/8/2016 2:55:46 PM	28471
4-Chloroaniline	ND	27	100		µg/L	1	11/8/2016 2:55:46 PM	28471
2-Chloronaphthalene	ND	23	100		µg/L	1	11/8/2016 2:55:46 PM	28471
2-Chlorophenol	ND	22	100		µg/L	1	11/8/2016 2:55:46 PM	28471
4-Chlorophenyl phenyl ether	ND	26	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Chrysene	ND	28	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Di-n-butyl phthalate	ND	24	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Di-n-octyl phthalate	75	20	100	J	µg/L	1	11/8/2016 2:55:46 PM	28471

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 7:45:00 AM
Lab ID: 1611072-010 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	27	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Dibenzofuran	ND	25	100		µg/L	1	11/8/2016 2:55:46 PM	28471
1,2-Dichlorobenzene	ND	23	100		µg/L	1	11/8/2016 2:55:46 PM	28471
1,3-Dichlorobenzene	ND	23	100		µg/L	1	11/8/2016 2:55:46 PM	28471
1,4-Dichlorobenzene	ND	24	100		µg/L	1	11/8/2016 2:55:46 PM	28471
3,3´-Dichlorobenzidine	ND	24	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Diethyl phthalate	ND	27	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Dimethyl phthalate	ND	24	100		µg/L	1	11/8/2016 2:55:46 PM	28471
2,4-Dichlorophenol	ND	23	200		µg/L	1	11/8/2016 2:55:46 PM	28471
2,4-Dimethylphenol	ND	30	100		µg/L	1	11/8/2016 2:55:46 PM	28471
4,6-Dinitro-2-methylphenol	ND	18	200		µg/L	1	11/8/2016 2:55:46 PM	28471
2,4-Dinitrophenol	ND	28	200		µg/L	1	11/8/2016 2:55:46 PM	28471
2,4-Dinitrotoluene	ND	31	100		µg/L	1	11/8/2016 2:55:46 PM	28471
2,6-Dinitrotoluene	ND	27	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Fluoranthene	ND	26	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Fluorene	ND	27	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Hexachlorobenzene	ND	26	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Hexachlorobutadiene	ND	22	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Hexachlorocyclopentadiene	ND	23	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Hexachloroethane	ND	24	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Indeno(1,2,3-cd)pyrene	ND	30	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Isophorone	ND	26	100		µg/L	1	11/8/2016 2:55:46 PM	28471
1-Methylnaphthalene	ND	29	100		µg/L	1	11/8/2016 2:55:46 PM	28471
2-Methylnaphthalene	ND	29	100		µg/L	1	11/8/2016 2:55:46 PM	28471
2-Methylphenol	ND	25	100		µg/L	1	11/8/2016 2:55:46 PM	28471
3+4-Methylphenol	ND	23	100		µg/L	1	11/8/2016 2:55:46 PM	28471
N-Nitrosodi-n-propylamine	ND	24	100		µg/L	1	11/8/2016 2:55:46 PM	28471
N-Nitrosodimethylamine	ND	22	100		µg/L	1	11/8/2016 2:55:46 PM	28471
N-Nitrosodiphenylamine	ND	23	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Naphthalene	ND	26	100		µg/L	1	11/8/2016 2:55:46 PM	28471
2-Nitroaniline	ND	28	100		µg/L	1	11/8/2016 2:55:46 PM	28471
3-Nitroaniline	ND	29	100		µg/L	1	11/8/2016 2:55:46 PM	28471
4-Nitroaniline	ND	26	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Nitrobenzene	ND	28	100		µg/L	1	11/8/2016 2:55:46 PM	28471
2-Nitrophenol	ND	24	100		µg/L	1	11/8/2016 2:55:46 PM	28471
4-Nitrophenol	ND	26	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Pentachlorophenol	ND	23	200		µg/L	1	11/8/2016 2:55:46 PM	28471
Phenanthrene	ND	26	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Phenol	ND	20	100		µg/L	1	11/8/2016 2:55:46 PM	28471

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 7:45:00 AM
Lab ID: 1611072-010 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	31	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Pyridine	ND	22	100		µg/L	1	11/8/2016 2:55:46 PM	28471
1,2,4-Trichlorobenzene	ND	26	100		µg/L	1	11/8/2016 2:55:46 PM	28471
2,4,5-Trichlorophenol	ND	22	100		µg/L	1	11/8/2016 2:55:46 PM	28471
2,4,6-Trichlorophenol	ND	24	100		µg/L	1	11/8/2016 2:55:46 PM	28471
Surr: 2-Fluorophenol	31.1	0	15-98.1		%Rec	1	11/8/2016 2:55:46 PM	28471
Surr: Phenol-d5	27.1	0	15-80.7		%Rec	1	11/8/2016 2:55:46 PM	28471
Surr: 2,4,6-Tribromophenol	42.5	0	15-112		%Rec	1	11/8/2016 2:55:46 PM	28471
Surr: Nitrobenzene-d5	61.8	0	27.2-90.7		%Rec	1	11/8/2016 2:55:46 PM	28471
Surr: 2-Fluorobiphenyl	52.6	0	23.3-85.6		%Rec	1	11/8/2016 2:55:46 PM	28471
Surr: 4-Terphenyl-d14	43.8	0	27.6-107		%Rec	1	11/8/2016 2:55:46 PM	28471
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Toluene	ND	0.12	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Naphthalene	ND	0.093	2.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Acetone	ND	4.9	10		µg/L	1	11/7/2016 6:27:33 PM	R38506
Bromobenzene	ND	0.098	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Bromoform	ND	0.10	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Bromomethane	ND	0.78	3.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
2-Butanone	ND	0.74	10		µg/L	1	11/7/2016 6:27:33 PM	R38506
Carbon disulfide	ND	0.60	10		µg/L	1	11/7/2016 6:27:33 PM	R38506
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Chloroethane	ND	0.19	2.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Chloroform	ND	0.089	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Chloromethane	ND	0.21	3.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 7:45:00 AM
Lab ID: 1611072-010 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Dibromomethane	ND	0.12	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
1,1-Dichloroethene	0.35	0.11	1.0	J	µg/L	1	11/7/2016 6:27:33 PM	R38506
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
2-Hexanone	ND	0.84	10		µg/L	1	11/7/2016 6:27:33 PM	R38506
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/7/2016 6:27:33 PM	R38506
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Styrene	ND	0.11	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/7/2016 6:27:33 PM	R38506
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/7/2016 6:27:33 PM	R38506
Surr: 1,2-Dichloroethane-d4	105	0	70-130		%Rec	1	11/7/2016 6:27:33 PM	R38506

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-44
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 7:45:00 AM
Lab ID: 1611072-010 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 4-Bromofluorobenzene	92.4	0	70-130		%Rec	1	11/7/2016 6:27:33 PM	R38506
Surr: Dibromofluoromethane	108	0	70-130		%Rec	1	11/7/2016 6:27:33 PM	R38506
Surr: Toluene-d8	102	0	70-130		%Rec	1	11/7/2016 6:27:33 PM	R38506

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 8:20:00 AM
Lab ID: 1611072-011
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	11/10/2016 3:13:12 PM	28583
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	0.88	0.69	1.0	J	mg/L	1	11/3/2016 5:04:24 PM	28435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/3/2016 5:04:24 PM	28435
Surr: DNOP	114	0	77.1-144		%Rec	1	11/3/2016 5:04:24 PM	28435
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	10	0.51	1.0		mg/L	20	11/8/2016 5:10:01 PM	G38528
Surr: BFB	95.2	0	66.4-120		%Rec	20	11/8/2016 5:10:01 PM	G38528
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.052	0.050	0.10	J	mg/L	1	11/2/2016 4:32:03 PM	R38417
Chloride	530	2.5	25		mg/L	50	11/8/2016 6:35:51 PM	R38550
Bromide	3.9	0.87	2.0		mg/L	20	11/2/2016 5:09:17 PM	R38417
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50		mg/L	1	11/2/2016 4:32:03 PM	R38417
Sulfate	36	0.14	0.50		mg/L	1	11/2/2016 4:32:03 PM	R38417
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	11/9/2016 9:48:51 PM	R38595
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.28	0.0013	0.0020		mg/L	1	11/28/2016 1:28:30 PM	A38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 1:28:30 PM	A38985
Calcium	110	5.0	10		mg/L	10	11/28/2016 7:52:13 PM	A38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 1:28:30 PM	A38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 1:28:30 PM	A38985
Iron	0.35	0.020	0.020	*	mg/L	1	11/28/2016 1:28:30 PM	A38985
Magnesium	21	0.50	1.0		mg/L	1	11/28/2016 1:28:30 PM	A38985
Manganese	2.5	0.0016	0.010	*	mg/L	5	11/28/2016 1:30:29 PM	A38985
Potassium	1.2	0.50	1.0		mg/L	1	11/28/2016 1:28:30 PM	A38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 1:28:30 PM	A38985
Sodium	590	5.0	10		mg/L	10	11/28/2016 7:52:13 PM	A38985
Zinc	0.035	0.0028	0.010		mg/L	1	12/6/2016 3:49:03 PM	A39177
EPA METHOD 200.7: TOTAL METALS							Analyst: **TES**	
Barium	0.39	0.00079	0.0020		mg/L	1	11/18/2016 7:32:15 PM	28728
Cadmium	ND	0.0015	0.0020		mg/L	1	11/18/2016 7:32:15 PM	28728
Chromium	ND	0.0027	0.0060		mg/L	1	11/18/2016 7:32:15 PM	28728
Copper	0.021	0.0030	0.0060		mg/L	1	11/18/2016 7:32:15 PM	28728
Iron	3.2	0.10	0.10	*	mg/L	5	11/18/2016 7:33:39 PM	28728
Manganese	2.8	0.0014	0.010	*	mg/L	5	11/18/2016 7:33:39 PM	28728
Silver	ND	0.0015	0.0050		mg/L	1	11/18/2016 7:32:15 PM	28728
Zinc	0.0072	0.0027	0.010	J	mg/L	1	11/30/2016 7:58:23 PM	28879

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 8:20:00 AM
Lab ID: 1611072-011
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0047	0.00014	0.0010		mg/L	1	11/16/2016 9:18:18 PM	B38773
Lead	0.00031	0.00017	0.00050	J	mg/L	1	11/16/2016 9:18:18 PM	B38773
Selenium	0.0067	0.00021	0.0010		mg/L	1	11/16/2016 9:18:18 PM	B38773
Uranium	0.037	0.00026	0.0025	*	mg/L	5	11/18/2016 6:01:11 PM	A38851
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0047	0.0011	0.0050	J	mg/L	5	11/17/2016 6:46:20 PM	28728
Lead	0.0050	0.000081	0.00050		mg/L	1	11/17/2016 4:03:54 PM	28728
Selenium	0.0062	0.0019	0.010	J	mg/L	10	11/17/2016 6:49:21 PM	28728
Uranium	0.032	0.00087	0.0025	*	mg/L	5	11/17/2016 6:46:20 PM	28728
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/15/2016 6:28:20 PM	28670
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Acenaphthylene	ND	2.4	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Aniline	ND	2.4	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Anthracene	ND	2.5	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Azobenzene	ND	2.7	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Benzoic acid	11	2.6	20	J	µg/L	1	11/8/2016 3:23:41 PM	28471
Benzyl alcohol	ND	3.0	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Bis(2-ethylhexyl)phthalate	7.2	2.6	10	J	µg/L	1	11/8/2016 3:23:41 PM	28471
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Butyl benzyl phthalate	2.7	2.5	10	J	µg/L	1	11/8/2016 3:23:41 PM	28471
Carbazole	ND	2.3	10		µg/L	1	11/8/2016 3:23:41 PM	28471
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/8/2016 3:23:41 PM	28471
4-Chloroaniline	ND	2.7	10		µg/L	1	11/8/2016 3:23:41 PM	28471
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/8/2016 3:23:41 PM	28471
2-Chlorophenol	ND	2.2	10		µg/L	1	11/8/2016 3:23:41 PM	28471
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Chrysene	ND	2.8	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 3:23:41 PM	28471

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 8:20:00 AM
Lab ID: 1611072-011
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	8.4	2.0	10	J	µg/L	1	11/8/2016 3:23:41 PM	28471
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Dibenzofuran	ND	2.5	10		µg/L	1	11/8/2016 3:23:41 PM	28471
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 3:23:41 PM	28471
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 3:23:41 PM	28471
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/8/2016 3:23:41 PM	28471
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Diethyl phthalate	ND	2.7	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 3:23:41 PM	28471
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/8/2016 3:23:41 PM	28471
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/8/2016 3:23:41 PM	28471
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/8/2016 3:23:41 PM	28471
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/8/2016 3:23:41 PM	28471
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/8/2016 3:23:41 PM	28471
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Fluoranthene	ND	2.6	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Fluorene	ND	2.7	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Hexachloroethane	ND	2.4	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Isophorone	ND	2.6	10		µg/L	1	11/8/2016 3:23:41 PM	28471
1-Methylnaphthalene	5.5	2.9	10	J	µg/L	1	11/8/2016 3:23:41 PM	28471
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 3:23:41 PM	28471
2-Methylphenol	ND	2.5	10		µg/L	1	11/8/2016 3:23:41 PM	28471
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/8/2016 3:23:41 PM	28471
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/8/2016 3:23:41 PM	28471
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/8/2016 3:23:41 PM	28471
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Naphthalene	3.7	2.6	10	J	µg/L	1	11/8/2016 3:23:41 PM	28471
2-Nitroaniline	ND	2.8	10		µg/L	1	11/8/2016 3:23:41 PM	28471
3-Nitroaniline	ND	2.9	10		µg/L	1	11/8/2016 3:23:41 PM	28471
4-Nitroaniline	ND	2.6	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Nitrobenzene	ND	2.8	10		µg/L	1	11/8/2016 3:23:41 PM	28471
2-Nitrophenol	ND	2.4	10		µg/L	1	11/8/2016 3:23:41 PM	28471
4-Nitrophenol	ND	2.6	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Pentachlorophenol	ND	2.3	20		µg/L	1	11/8/2016 3:23:41 PM	28471
Phenanthrene	ND	2.6	10		µg/L	1	11/8/2016 3:23:41 PM	28471

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 8:20:00 AM
Lab ID: 1611072-011 **Matrix:** AQUEOUS **Received Date:** 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	6.8	2.0	10	J	µg/L	1	11/8/2016 3:23:41 PM	28471
Pyrene	ND	3.1	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Pyridine	ND	2.2	10		µg/L	1	11/8/2016 3:23:41 PM	28471
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 3:23:41 PM	28471
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/8/2016 3:23:41 PM	28471
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/8/2016 3:23:41 PM	28471
Surr: 2-Fluorophenol	34.0	0	15-98.1		%Rec	1	11/8/2016 3:23:41 PM	28471
Surr: Phenol-d5	29.1	0	15-80.7		%Rec	1	11/8/2016 3:23:41 PM	28471
Surr: 2,4,6-Tribromophenol	51.2	0	15-112		%Rec	1	11/8/2016 3:23:41 PM	28471
Surr: Nitrobenzene-d5	72.9	0	27.2-90.7		%Rec	1	11/8/2016 3:23:41 PM	28471
Surr: 2-Fluorobiphenyl	56.5	0	23.3-85.6		%Rec	1	11/8/2016 3:23:41 PM	28471
Surr: 4-Terphenyl-d14	56.1	0	27.6-107		%Rec	1	11/8/2016 3:23:41 PM	28471
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	960	0.96	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
Toluene	6.0	1.2	10	J	µg/L	10	11/7/2016 7:25:10 PM	R38506
Ethylbenzene	46	1.1	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
Methyl tert-butyl ether (MTBE)	190	2.1	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
1,2,4-Trimethylbenzene	2.5	1.1	10	J	µg/L	10	11/7/2016 7:25:10 PM	R38506
1,3,5-Trimethylbenzene	ND	1.2	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
1,2-Dichloroethane (EDC)	8.6	1.2	10	J	µg/L	10	11/7/2016 7:25:10 PM	R38506
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
Naphthalene	ND	0.93	20		µg/L	10	11/7/2016 7:25:10 PM	R38506
1-Methylnaphthalene	ND	2.0	40		µg/L	10	11/7/2016 7:25:10 PM	R38506
2-Methylnaphthalene	ND	1.6	40		µg/L	10	11/7/2016 7:25:10 PM	R38506
Acetone	ND	49	100		µg/L	10	11/7/2016 7:25:10 PM	R38506
Bromobenzene	ND	0.98	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
Bromodichloromethane	ND	1.4	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
Bromoform	ND	1.0	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
Bromomethane	ND	7.8	30		µg/L	10	11/7/2016 7:25:10 PM	R38506
2-Butanone	ND	7.4	100		µg/L	10	11/7/2016 7:25:10 PM	R38506
Carbon disulfide	ND	6.0	100		µg/L	10	11/7/2016 7:25:10 PM	R38506
Carbon Tetrachloride	ND	1.1	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
Chlorobenzene	ND	1.1	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
Chloroethane	ND	1.9	20		µg/L	10	11/7/2016 7:25:10 PM	R38506
Chloroform	ND	0.89	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
Chloromethane	ND	2.1	30		µg/L	10	11/7/2016 7:25:10 PM	R38506
2-Chlorotoluene	ND	4.0	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
4-Chlorotoluene	ND	1.3	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
cis-1,2-DCE	44	1.2	10		µg/L	10	11/7/2016 7:25:10 PM	R38506

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 8:20:00 AM
Lab ID: 1611072-011
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	11/7/2016 7:25:10 PM	R38506
Dibromochloromethane	ND	0.87	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
Dibromomethane	ND	1.2	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
1,1-Dichloroethane	220	1.1	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
1,1-Dichloroethene	88	1.1	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
1,2-Dichloropropane	ND	1.1	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
1,3-Dichloropropane	ND	1.6	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
2,2-Dichloropropane	ND	1.7	20		µg/L	10	11/7/2016 7:25:10 PM	R38506
1,1-Dichloropropene	ND	1.3	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
Hexachlorobutadiene	ND	2.0	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
2-Hexanone	ND	8.4	100		µg/L	10	11/7/2016 7:25:10 PM	R38506
Isopropylbenzene	23	1.0	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
4-Isopropyltoluene	ND	1.4	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	11/7/2016 7:25:10 PM	R38506
Methylene Chloride	ND	1.9	30		µg/L	10	11/7/2016 7:25:10 PM	R38506
n-Butylbenzene	8.0	1.6	30	J	µg/L	10	11/7/2016 7:25:10 PM	R38506
n-Propylbenzene	28	1.3	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
sec-Butylbenzene	5.4	1.2	10	J	µg/L	10	11/7/2016 7:25:10 PM	R38506
Styrene	ND	1.1	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
tert-Butylbenzene	ND	1.2	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	11/7/2016 7:25:10 PM	R38506
Tetrachloroethene (PCE)	2.7	1.5	10	J	µg/L	10	11/7/2016 7:25:10 PM	R38506
trans-1,2-DCE	ND	4.0	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
1,1,1-Trichloroethane	14	0.91	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
Trichloroethene (TCE)	18	1.8	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
Trichlorofluoromethane	ND	2.0	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	11/7/2016 7:25:10 PM	R38506
Vinyl chloride	ND	2.0	10		µg/L	10	11/7/2016 7:25:10 PM	R38506
Xylenes, Total	4.6	3.7	15	J	µg/L	10	11/7/2016 7:25:10 PM	R38506

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-25
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 8:20:00 AM
Lab ID: 1611072-011
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	91.5	0	70-130		%Rec	10	11/7/2016 7:25:10 PM	R38506
Surr: 4-Bromofluorobenzene	89.0	0	70-130		%Rec	10	11/7/2016 7:25:10 PM	R38506
Surr: Dibromofluoromethane	95.9	0	70-130		%Rec	10	11/7/2016 7:25:10 PM	R38506
Surr: Toluene-d8	104	0	70-130		%Rec	10	11/7/2016 7:25:10 PM	R38506

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP03
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016
Lab ID: 1611072-012
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	11/10/2016 3:28:12 PM	28583
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	1.0	0.69	1.0		mg/L	1	11/3/2016 5:26:08 PM	28435
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/3/2016 5:26:08 PM	28435
Surr: DNOP	118	0	77.1-144		%Rec	1	11/3/2016 5:26:08 PM	28435
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	10	0.51	1.0		mg/L	20	11/8/2016 6:22:55 PM	G38528
Surr: BFB	101	0	66.4-120		%Rec	20	11/8/2016 6:22:55 PM	G38528
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.051	0.050	0.10	J	mg/L	1	11/2/2016 5:21:42 PM	R38417
Chloride	520	2.5	25		mg/L	50	11/8/2016 6:48:16 PM	R38550
Bromide	3.7	0.87	2.0		mg/L	20	11/2/2016 5:34:07 PM	R38417
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50		mg/L	1	11/2/2016 5:21:42 PM	R38417
Sulfate	36	0.14	0.50		mg/L	1	11/2/2016 5:21:42 PM	R38417
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	11/9/2016 10:01:15 PM	R38595
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.28	0.0013	0.0020		mg/L	1	11/28/2016 1:32:31 PM	A38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 1:32:31 PM	A38985
Calcium	110	2.5	5.0		mg/L	5	11/28/2016 1:34:28 PM	A38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 1:32:31 PM	A38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 1:32:31 PM	A38985
Iron	0.35	0.020	0.020	*	mg/L	1	11/28/2016 1:32:31 PM	A38985
Magnesium	21	0.50	1.0		mg/L	1	11/28/2016 1:32:31 PM	A38985
Manganese	2.5	0.0016	0.010	*	mg/L	5	11/28/2016 1:34:28 PM	A38985
Potassium	1.2	0.50	1.0		mg/L	1	11/28/2016 1:32:31 PM	A38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 1:32:31 PM	A38985
Sodium	590	5.0	10		mg/L	10	12/1/2016 4:26:40 PM	A39100
Zinc	0.032	0.0028	0.010		mg/L	1	12/1/2016 4:24:49 PM	A39100
EPA METHOD 200.7: TOTAL METALS							Analyst: **TES**	
Barium	0.39	0.00079	0.0020		mg/L	1	11/18/2016 7:40:16 PM	28728
Cadmium	ND	0.0015	0.0020		mg/L	1	11/18/2016 7:40:16 PM	28728
Chromium	0.0028	0.0027	0.0060	J	mg/L	1	11/18/2016 7:40:16 PM	28728
Copper	0.0089	0.0030	0.0060		mg/L	1	11/18/2016 7:40:16 PM	28728
Iron	3.5	0.10	0.10	*	mg/L	5	11/18/2016 7:41:39 PM	28728
Manganese	2.8	0.0014	0.010	*	mg/L	5	11/18/2016 7:41:39 PM	28728
Silver	ND	0.0015	0.0050		mg/L	1	11/18/2016 7:40:16 PM	28728
Zinc	0.0078	0.0027	0.010	J	mg/L	1	11/30/2016 8:00:04 PM	28879

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Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP03
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016
Lab ID: 1611072-012
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0046	0.00014	0.0010		mg/L	1	11/16/2016 9:23:26 PM	B38773
Lead	0.00031	0.00017	0.00050	J	mg/L	1	11/16/2016 9:23:26 PM	B38773
Selenium	0.0063	0.00021	0.0010		mg/L	1	11/16/2016 9:23:26 PM	B38773
Uranium	0.036	0.00026	0.0025	*	mg/L	5	11/18/2016 6:04:14 PM	A38851
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0049	0.0011	0.0050	J	mg/L	5	11/17/2016 6:52:21 PM	28728
Lead	0.0053	0.000081	0.00050		mg/L	1	11/17/2016 4:12:58 PM	28728
Selenium	0.0047	0.0019	0.010	J	mg/L	10	11/17/2016 7:01:26 PM	28728
Uranium	0.030	0.00087	0.0025	*	mg/L	5	11/17/2016 6:52:21 PM	28728
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/15/2016 6:50:31 PM	28670
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Acenaphthylene	ND	2.4	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Aniline	ND	2.4	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Anthracene	ND	2.5	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Azobenzene	ND	2.7	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Benzoic acid	11	2.6	20	J	µg/L	1	11/8/2016 3:51:33 PM	28471
Benzyl alcohol	ND	3.0	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Bis(2-ethylhexyl)phthalate	6.8	2.6	10	J	µg/L	1	11/8/2016 3:51:33 PM	28471
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Butyl benzyl phthalate	2.7	2.5	10	J	µg/L	1	11/8/2016 3:51:33 PM	28471
Carbazole	ND	2.3	10		µg/L	1	11/8/2016 3:51:33 PM	28471
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/8/2016 3:51:33 PM	28471
4-Chloroaniline	ND	2.7	10		µg/L	1	11/8/2016 3:51:33 PM	28471
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/8/2016 3:51:33 PM	28471
2-Chlorophenol	ND	2.2	10		µg/L	1	11/8/2016 3:51:33 PM	28471
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Chrysene	ND	2.8	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 3:51:33 PM	28471

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP03
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016
Lab ID: 1611072-012
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	7.1	2.0	10	J	µg/L	1	11/8/2016 3:51:33 PM	28471
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Dibenzofuran	ND	2.5	10		µg/L	1	11/8/2016 3:51:33 PM	28471
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 3:51:33 PM	28471
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 3:51:33 PM	28471
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/8/2016 3:51:33 PM	28471
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Diethyl phthalate	ND	2.7	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 3:51:33 PM	28471
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/8/2016 3:51:33 PM	28471
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/8/2016 3:51:33 PM	28471
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/8/2016 3:51:33 PM	28471
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/8/2016 3:51:33 PM	28471
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/8/2016 3:51:33 PM	28471
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Fluoranthene	ND	2.6	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Fluorene	ND	2.7	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Hexachloroethane	ND	2.4	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Isophorone	ND	2.6	10		µg/L	1	11/8/2016 3:51:33 PM	28471
1-Methylnaphthalene	3.3	2.9	10	J	µg/L	1	11/8/2016 3:51:33 PM	28471
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 3:51:33 PM	28471
2-Methylphenol	ND	2.5	10		µg/L	1	11/8/2016 3:51:33 PM	28471
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/8/2016 3:51:33 PM	28471
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/8/2016 3:51:33 PM	28471
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/8/2016 3:51:33 PM	28471
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Naphthalene	3.6	2.6	10	J	µg/L	1	11/8/2016 3:51:33 PM	28471
2-Nitroaniline	ND	2.8	10		µg/L	1	11/8/2016 3:51:33 PM	28471
3-Nitroaniline	ND	2.9	10		µg/L	1	11/8/2016 3:51:33 PM	28471
4-Nitroaniline	ND	2.6	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Nitrobenzene	ND	2.8	10		µg/L	1	11/8/2016 3:51:33 PM	28471
2-Nitrophenol	ND	2.4	10		µg/L	1	11/8/2016 3:51:33 PM	28471
4-Nitrophenol	ND	2.6	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Pentachlorophenol	ND	2.3	20		µg/L	1	11/8/2016 3:51:33 PM	28471
Phenanthrene	ND	2.6	10		µg/L	1	11/8/2016 3:51:33 PM	28471

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Hall Environmental Analysis Laboratory, Inc.

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Client Sample ID: DUP03
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016
Lab ID: 1611072-012
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	6.3	2.0	10	J	µg/L	1	11/8/2016 3:51:33 PM	28471
Pyrene	ND	3.1	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Pyridine	ND	2.2	10		µg/L	1	11/8/2016 3:51:33 PM	28471
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 3:51:33 PM	28471
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/8/2016 3:51:33 PM	28471
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/8/2016 3:51:33 PM	28471
Surr: 2-Fluorophenol	31.2	0	15-98.1		%Rec	1	11/8/2016 3:51:33 PM	28471
Surr: Phenol-d5	27.1	0	15-80.7		%Rec	1	11/8/2016 3:51:33 PM	28471
Surr: 2,4,6-Tribromophenol	45.2	0	15-112		%Rec	1	11/8/2016 3:51:33 PM	28471
Surr: Nitrobenzene-d5	67.3	0	27.2-90.7		%Rec	1	11/8/2016 3:51:33 PM	28471
Surr: 2-Fluorobiphenyl	48.6	0	23.3-85.6		%Rec	1	11/8/2016 3:51:33 PM	28471
Surr: 4-Terphenyl-d14	51.6	0	27.6-107		%Rec	1	11/8/2016 3:51:33 PM	28471
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	1100	4.8	50		µg/L	50	11/8/2016 11:58:06 AM	R38539
Toluene	7.2	0.12	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
Ethylbenzene	62	0.11	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
Methyl tert-butyl ether (MTBE)	170	0.21	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
1,2,4-Trimethylbenzene	ND	5.5	50		µg/L	50	11/8/2016 11:58:06 AM	R38539
1,3,5-Trimethylbenzene	ND	5.8	50		µg/L	50	11/8/2016 11:58:06 AM	R38539
1,2-Dichloroethane (EDC)	9.1	0.12	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
Naphthalene	ND	4.6	100		µg/L	50	11/8/2016 11:58:06 AM	R38539
1-Methylnaphthalene	ND	10	200		µg/L	50	11/8/2016 11:58:06 AM	R38539
2-Methylnaphthalene	ND	7.9	200		µg/L	50	11/8/2016 11:58:06 AM	R38539
Acetone	ND	4.9	10		µg/L	1	11/7/2016 7:53:59 PM	R38506
Bromobenzene	ND	4.9	50		µg/L	50	11/8/2016 11:58:06 AM	R38539
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
Bromoform	ND	5.1	50		µg/L	50	11/8/2016 11:58:06 AM	R38539
Bromomethane	ND	0.78	3.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
2-Butanone	ND	0.74	10		µg/L	1	11/7/2016 7:53:59 PM	R38506
Carbon disulfide	ND	0.60	10		µg/L	1	11/7/2016 7:53:59 PM	R38506
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
Chloroethane	ND	0.19	2.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
Chloroform	ND	0.089	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
Chloromethane	ND	0.21	3.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
2-Chlorotoluene	ND	20	50		µg/L	50	11/8/2016 11:58:06 AM	R38539
4-Chlorotoluene	ND	6.4	50		µg/L	50	11/8/2016 11:58:06 AM	R38539
cis-1,2-DCE	41	0.12	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP03
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016
Lab ID: 1611072-012
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
1,2-Dibromo-3-chloropropane	ND	12	100		µg/L	50	11/8/2016 11:58:06 AM	R38539
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
Dibromomethane	ND	0.12	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
1,2-Dichlorobenzene	ND	20	50		µg/L	50	11/8/2016 11:58:06 AM	R38539
1,3-Dichlorobenzene	ND	7.2	50		µg/L	50	11/8/2016 11:58:06 AM	R38539
1,4-Dichlorobenzene	ND	7.1	50		µg/L	50	11/8/2016 11:58:06 AM	R38539
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
1,1-Dichloroethane	240	5.4	50		µg/L	50	11/8/2016 11:58:06 AM	R38539
1,1-Dichloroethene	77	0.11	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
Hexachlorobutadiene	ND	9.9	50		µg/L	50	11/8/2016 11:58:06 AM	R38539
2-Hexanone	ND	0.84	10		µg/L	1	11/7/2016 7:53:59 PM	R38506
Isopropylbenzene	28	5.2	50	J	µg/L	50	11/8/2016 11:58:06 AM	R38539
4-Isopropyltoluene	ND	7.0	50		µg/L	50	11/8/2016 11:58:06 AM	R38539
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/7/2016 7:53:59 PM	R38506
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
n-Butylbenzene	20	8.0	150	J	µg/L	50	11/8/2016 11:58:06 AM	R38539
n-Propylbenzene	41	6.6	50	J	µg/L	50	11/8/2016 11:58:06 AM	R38539
sec-Butylbenzene	14	6.2	50	J	µg/L	50	11/8/2016 11:58:06 AM	R38539
Styrene	ND	0.11	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
tert-Butylbenzene	ND	5.8	50		µg/L	50	11/8/2016 11:58:06 AM	R38539
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
1,1,2,2-Tetrachloroethane	ND	6.4	100		µg/L	50	11/8/2016 11:58:06 AM	R38539
Tetrachloroethene (PCE)	2.8	0.15	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
1,2,3-Trichlorobenzene	ND	5.6	50		µg/L	50	11/8/2016 11:58:06 AM	R38539
1,2,4-Trichlorobenzene	ND	6.6	50		µg/L	50	11/8/2016 11:58:06 AM	R38539
1,1,1-Trichloroethane	15	0.091	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
1,1,2-Trichloroethane	1.3	0.13	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
Trichloroethene (TCE)	18	0.18	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
1,2,3-Trichloropropane	ND	10	100		µg/L	50	11/8/2016 11:58:06 AM	R38539
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/7/2016 7:53:59 PM	R38506
Xylenes, Total	5.5	0.37	1.5		µg/L	1	11/7/2016 7:53:59 PM	R38506

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP03
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016
Lab ID: 1611072-012
Matrix: AQUEOUS
Received Date: 11/1/2016 4:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	83.1	0	70-130		%Rec	1	11/7/2016 7:53:59 PM	R38506
Surr: 4-Bromofluorobenzene	91.8	0	70-130		%Rec	50	11/8/2016 11:58:06 AM	R38539
Surr: Dibromofluoromethane	82.0	0	70-130		%Rec	1	11/7/2016 7:53:59 PM	R38506
Surr: Toluene-d8	103	0	70-130		%Rec	1	11/7/2016 7:53:59 PM	R38506

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A38985**	RunNo: **38985**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1219180** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A38985**	RunNo: **38985**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1219181** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.0020	0.5000	0	94.3	85	115			
Cadmium	0.47	0.0020	0.5000	0	94.3	85	115			
Calcium	48	1.0	50.00	0	96.6	85	115			
Chromium	0.47	0.0060	0.5000	0	93.5	85	115			
Copper	0.47	0.0060	0.5000	0	93.3	85	115			
Iron	0.47	0.020	0.5000	0	93.0	85	115			
Magnesium	49	1.0	50.00	0	98.6	85	115			
Manganese	0.46	0.0020	0.5000	0	91.2	85	115			
Potassium	50	1.0	50.00	0	99.5	85	115			
Silver	0.098	0.0050	0.1000	0	97.9	85	115			
Sodium	49	1.0	50.00	0	98.4	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A38985**	RunNo: **38985**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1219182** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	101	50	150			
Cadmium	0.0020	0.0020	0.002000	0	103	50	150			
Calcium	0.55	1.0	0.5000	0	111	50	150			J
Chromium	0.0063	0.0060	0.006000	0	105	50	150			
Copper	0.0069	0.0060	0.006000	0	115	50	150			
Iron	0.018	0.020	0.02000	0	89.2	50	150			J

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**LLLCS-A**	SampType: **LCSLL**			TestCode: **EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID: **A38985**			RunNo: **38985**					
Prep Date:		Analysis Date: **11/28/2016**			SeqNo: **1219182**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	0.50	1.0	0.5000	0	99.3	50	150			J
Manganese	0.0020	0.0020	0.002000	0	97.5	50	150			J
Potassium	0.56	1.0	0.5000	0	112	50	150			J
Silver	0.0053	0.0050	0.005000	0	107	50	150			
Sodium	0.44	1.0	0.5000	0	87.7	50	150			J

Sample ID	**MB-A**	SampType: **MBLK**			TestCode: **EPA Method 200.7: Dissolved Metals**					
Client ID:	**PBW**	Batch ID: **A39100**			RunNo: **39100**					
Prep Date:		Analysis Date: **12/1/2016**			SeqNo: **1223097**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	**LCS-A**	SampType: **LCS**			TestCode: **EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID: **A39100**			RunNo: **39100**					
Prep Date:		Analysis Date: **12/1/2016**			SeqNo: **1223098**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	50	1.0	50.00	0	100	85	115			
Zinc	0.47	0.010	0.5000	0	94.1	85	115			

Sample ID	**LLLCS-A**	SampType: **LCSLL**			TestCode: **EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID: **A39100**			RunNo: **39100**					
Prep Date:		Analysis Date: **12/1/2016**			SeqNo: **1223099**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	0.54	1.0	0.5000	0	109	50	150			J
Zinc	0.0054	0.010	0.005000	0	108	50	150			J

Sample ID	**MB-A**	SampType: **MBLK**			TestCode: **EPA Method 200.7: Dissolved Metals**					
Client ID:	**PBW**	Batch ID: **A39164**			RunNo: **39164**					
Prep Date:		Analysis Date: **12/5/2016**			SeqNo: **1225227**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**LLLCS-A**	SampType: **LCSLL**			TestCode: **EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID: **A39164**			RunNo: **39164**					
Prep Date:		Analysis Date: **12/5/2016**			SeqNo: **1225228**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.0064	0.010	0.005000	0	127	50	150			J

Sample ID	**LCS-A**	SampType: **LCS**			TestCode: **EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID: **A39164**			RunNo: **39164**					
Prep Date:		Analysis Date: **12/5/2016**			SeqNo: **1225229**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.48	0.010	0.5000	0	96.9	85	115			

Sample ID	**MB-A**	SampType: **MBLK**			TestCode: **EPA Method 200.7: Dissolved Metals**					
Client ID:	**PBW**	Batch ID: **A39177**			RunNo: **39177**					
Prep Date:		Analysis Date: **12/6/2016**			SeqNo: **1225881**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Sample ID	**LCS-A**	SampType: **LCS**			TestCode: **EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID: **A39177**			RunNo: **39177**					
Prep Date:		Analysis Date: **12/6/2016**			SeqNo: **1225882**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.48	0.010	0.5000	0	95.8	85	115			

Sample ID	**LLLCS-A**	SampType: **LCSLL**			TestCode: **EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID: **A39177**			RunNo: **39177**					
Prep Date:		Analysis Date: **12/6/2016**			SeqNo: **1225883**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.0059	0.010	0.005000	0	118	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**1611072-001GMS**	SampType: **MS**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-31**	Batch ID: **28728**		RunNo: **38782**					
Prep Date:	**11/16/2016**	Analysis Date: **11/17/2016**		SeqNo: **1211790**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.67	0.0020	0.5000	0.1782	98.9	70	130			
Cadmium	0.50	0.0020	0.5000	0	100	70	130			
Chromium	0.50	0.0060	0.5000	0	100	70	130			
Manganese	0.60	0.0020	0.5000	0.1092	97.2	70	130			
Silver	0.10	0.0050	0.1000	0	103	70	130			

Sample ID	**1611072-001GMSD**	SampType: **MSD**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-31**	Batch ID: **28728**		RunNo: **38782**					
Prep Date:	**11/16/2016**	Analysis Date: **11/17/2016**		SeqNo: **1211791**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.68	0.0020	0.5000	0.1782	101	70	130	1.22	20	
Cadmium	0.51	0.0020	0.5000	0	101	70	130	0.912	20	
Chromium	0.51	0.0060	0.5000	0	102	70	130	1.58	20	
Manganese	0.60	0.0020	0.5000	0.1092	98.7	70	130	1.22	20	
Silver	0.10	0.0050	0.1000	0	104	70	130	1.00	20	

Sample ID	**MB-28728**	SampType: **MBLK**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID: **28728**		RunNo: **38830**					
Prep Date:	**11/16/2016**	Analysis Date: **11/18/2016**		SeqNo: **1213420**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								
Zinc	ND	0.010								

Sample ID	**LLLCS-28728**	SampType: **LCSLL**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID: **28728**		RunNo: **38830**					
Prep Date:	**11/16/2016**	Analysis Date: **11/18/2016**		SeqNo: **1213421**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0060	0.0060	0.006000	0	101	50	150			
Zinc	0.013	0.010	0.005000	0	253	50	150			S

Sample ID	**LCS-28728**	SampType: **LCS**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID: **28728**		RunNo: **38830**					
Prep Date:	**11/16/2016**	Analysis Date: **11/18/2016**		SeqNo: **1213422**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.49	0.0060	0.5000	0	97.1	85	115			
Zinc	0.48	0.010	0.5000	0	95.5	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**1611072-001GMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-31**	Batch ID:	**28728**		RunNo:	**38830**				
Prep Date:	**11/16/2016**	Analysis Date:	**11/18/2016**		SeqNo:	**1213424**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.51	0.0060	0.5000	0	102	70	130			

Sample ID	**1611072-001GMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**MKTF-31**	Batch ID:	**28728**		RunNo:	**38830**				
Prep Date:	**11/16/2016**	Analysis Date:	**11/18/2016**		SeqNo:	**1213425**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.51	0.0060	0.5000	0	102	70	130	0.528	20	

Sample ID	**LLLCS-28728**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**BatchQC**	Batch ID:	**28728**		RunNo:	**38782**				
Prep Date:	**11/16/2016**	Analysis Date:	**11/17/2016**		SeqNo:	**1215038**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0021	0.0020	0.002000	0	106	50	150			
Chromium	0.0064	0.0060	0.006000	0	107	50	150			
Iron	0.024	0.020	0.02000	0	122	50	150			
Manganese	0.0021	0.0020	0.002000	0	106	50	150			
Silver	0.0052	0.0050	0.005000	0	105	50	150			

Sample ID	**MB-28728**	SampType:	**MBLK**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**PBW**	Batch ID:	**28728**		RunNo:	**38782**				
Prep Date:	**11/16/2016**	Analysis Date:	**11/17/2016**		SeqNo:	**1215039**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID	**LCS-28728**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**LCSW**	Batch ID:	**28728**		RunNo:	**38782**				
Prep Date:	**11/16/2016**	Analysis Date:	**11/17/2016**		SeqNo:	**1215040**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0	104	85	115			
Cadmium	0.51	0.0020	0.5000	0	103	85	115			
Chromium	0.52	0.0060	0.5000	0	103	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**LCS-28728**	SampType: **LCS**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID: **28728**		RunNo: **38782**					
Prep Date:	**11/16/2016**	Analysis Date: **11/17/2016**		SeqNo: **1215040**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.51	0.020	0.5000	0	102	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Silver	0.10	0.0050	0.1000	0	103	85	115			

Sample ID	**LLLCS-28728**	SampType: **LCSLL**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID: **28728**		RunNo: **38782**					
Prep Date:	**11/16/2016**	Analysis Date: **11/17/2016**		SeqNo: **1215041**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.0017	0.0020	0.002000	0	86.0	50	150			J

Sample ID	**MB-28879**	SampType: **MBLK**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID: **28879**		RunNo: **39064**					
Prep Date:	**11/28/2016**	Analysis Date: **11/30/2016**		SeqNo: **1222079**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	**LCS-28879**	SampType: **LCS**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID: **28879**		RunNo: **39064**					
Prep Date:	**11/28/2016**	Analysis Date: **11/30/2016**		SeqNo: **1222083**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.1	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.3	85	115			
Chromium	0.50	0.0060	0.5000	0	99.6	85	115			
Copper	0.48	0.0060	0.5000	0	95.6	85	115			
Iron	0.48	0.020	0.5000	0	96.6	85	115			
Manganese	0.48	0.0020	0.5000	0	96.9	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			
Zinc	0.50	0.010	0.5000	0	101	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**1611072-001GMS**	SampType: **MS**		TestCode: **EPA Method 200.7: Total Metals**						
Client ID:	**MKTF-31**	Batch ID: **28879**		RunNo: **39064**						
Prep Date:	**11/28/2016**	Analysis Date: **11/30/2016**		SeqNo: **1222085**		Units: **mg/L**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.50	0.010	0.5000	0.009770	98.5	70	130			

Sample ID	**1611072-001GMSD**	SampType: **MSD**		TestCode: **EPA Method 200.7: Total Metals**						
Client ID:	**MKTF-31**	Batch ID: **28879**		RunNo: **39064**						
Prep Date:	**11/28/2016**	Analysis Date: **11/30/2016**		SeqNo: **1222086**		Units: **mg/L**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.50	0.010	0.5000	0.009770	98.7	70	130	0.173	20	

Sample ID	**LLLCS-28879**	SampType: **LCSLL**		TestCode: **EPA Method 200.7: Total Metals**						
Client ID:	**BatchQC**	Batch ID: **28879**		RunNo: **39064**						
Prep Date:	**11/28/2016**	Analysis Date: **11/30/2016**		SeqNo: **1222148**		Units: **mg/L**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0022	0.0020	0.002000	0	112	50	150			
Cadmium	0.0018	0.0020	0.002000	0	87.5	50	150			J
Chromium	0.0064	0.0060	0.006000	0	106	50	150			
Copper	0.013	0.0060	0.006000	0	217	50	150			S
Iron	0.026	0.020	0.02000	0	130	50	150			
Manganese	0.0024	0.0020	0.002000	0	120	50	150			
Silver	0.0053	0.0050	0.005000	0	107	50	150			
Zinc	0.0061	0.010	0.005000	0	122	50	150			J

Sample ID	**1611072-001GMS**	SampType: **MS**		TestCode: **EPA Method 200.7: Total Metals**						
Client ID:	**MKTF-31**	Batch ID: **28728**		RunNo: **39247**						
Prep Date:	**11/16/2016**	Analysis Date: **12/8/2016**		SeqNo: **1228266**		Units: **mg/L**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	3.5	0.10	0.5000	1.461	416	70	130			S

Sample ID	**1611072-001GMSD**	SampType: **MSD**		TestCode: **EPA Method 200.7: Total Metals**						
Client ID:	**MKTF-31**	Batch ID: **28728**		RunNo: **39247**						
Prep Date:	**11/16/2016**	Analysis Date: **12/8/2016**		SeqNo: **1228267**		Units: **mg/L**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	3.8	0.10	0.5000	1.461	465	70	130	6.64	20	S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C38697**	RunNo: **38697**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208643** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	99.3	85	115			
Uranium	0.012	0.00050	0.01250	0	98.8	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C38697**	RunNo: **38697**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208647** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00053	0.00050	0.0005000	0	106	50	150			
Uranium	0.00051	0.00050	0.0005000	0	102	50	150			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C38697**	RunNo: **38697**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208653** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Uranium	ND	0.00050								

Sample ID **1611072-004GMSDL**	SampType: **MSD**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **MKTF-42**	Batch ID: **B38728**	RunNo: **38728**
Prep Date:	Analysis Date: **11/15/2016**	SeqNo: **1210028** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.063	0.0025	0.06250	0	102	70	130	1.82	20	
Selenium	0.13	0.0050	0.1250	0.01237	92.1	70	130	2.46	20	
Uranium	0.078	0.0025	0.06250	0.01284	104	70	130	0.723	20	

Sample ID **1611072-004GMSLL**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **MKTF-42**	Batch ID: **B38728**	RunNo: **38728**
Prep Date:	Analysis Date: **11/15/2016**	SeqNo: **1210030** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.062	0.0025	0.06250	0	99.8	70	130			
Selenium	0.12	0.0050	0.1250	0.01237	89.6	70	130			
Uranium	0.077	0.0025	0.06250	0.01284	103	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**1611072-005HMSLL**	SampType:	**MS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**MKTF-32**	Batch ID:	**B38728**		RunNo:	**38728**				
Prep Date:		Analysis Date:	**11/15/2016**		SeqNo:	**1210035**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.063	0.0025	0.06250	0	101	70	130			
Uranium	0.12	0.0025	0.06250	0.05912	103	70	130			

Sample ID	**LCS**	SampType:	**LCS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**LCSW**	Batch ID:	**B38728**		RunNo:	**38728**				
Prep Date:		Analysis Date:	**11/15/2016**		SeqNo:	**1210051**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	96.1	85	115			
Selenium	0.024	0.0010	0.02500	0	97.9	85	115			
Uranium	0.012	0.00050	0.01250	0	94.4	85	115			

Sample ID	**LLLCS**	SampType:	**LCSLL**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**BatchQC**	Batch ID:	**B38728**		RunNo:	**38728**				
Prep Date:		Analysis Date:	**11/15/2016**		SeqNo:	**1210056**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00051	0.00050	0.0005000	0	102	50	150			
Selenium	0.0011	0.0010	0.001000	0	113	50	150			
Uranium	0.00047	0.00050	0.0005000	0	94.6	50	150			J

Sample ID	**MB**	SampType:	**MBLK**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**PBW**	Batch ID:	**B38728**		RunNo:	**38728**				
Prep Date:		Analysis Date:	**11/15/2016**		SeqNo:	**1210060**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**1611072-005HMSLL**	SampType:	**MS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**MKTF-32**	Batch ID:	**B38773**		RunNo:	**38773**				
Prep Date:		Analysis Date:	**11/16/2016**		SeqNo:	**1211428**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.004038	101	70	130			
Selenium	0.13	0.0050	0.1250	0.006862	96.3	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B38773**	RunNo: **38773**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211439** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.8	85	115			
Lead	0.011	0.00050	0.01250	0	91.3	85	115			
Selenium	0.024	0.0010	0.02500	0	96.7	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B38773**	RunNo: **38773**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211440** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	105	50	150			
Lead	0.00048	0.00050	0.0005000	0	96.6	50	150			J
Selenium	0.00099	0.0010	0.001000	0	99.3	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B38773**	RunNo: **38773**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211441** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A38851**	RunNo: **38851**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1214205** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	94.2	85	115			
Lead	0.012	0.00050	0.01250	0	93.1	85	115			
Selenium	0.024	0.0010	0.02500	0	95.6	85	115			
Uranium	0.012	0.00050	0.01250	0	93.6	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A38851**	RunNo: **38851**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1214207** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00097	0.0010	0.001000	0	97.5	50	150			J
Lead	0.00047	0.00050	0.0005000	0	94.2	50	150			J
Selenium	0.00099	0.0010	0.001000	0	99.4	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A38851**	RunNo: **38851**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1214207** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.00047	0.00050	0.0005000	0	95.0	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A38851**	RunNo: **38851**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1214209** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B38934**	RunNo: **38934**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1217204** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.7	85	115			
Uranium	0.012	0.00050	0.01250	0	97.2	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B38934**	RunNo: **38934**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1217207** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00092	0.0010	0.001000	0	91.5	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	97.2	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B38934**	RunNo: **38934**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1217210** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**1611072-004FMSDL**	SampType:	**MSDLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-42**	Batch ID:	**28728**		RunNo:	**38800**				
Prep Date:	**11/16/2016**	Analysis Date:	**11/17/2016**		SeqNo:	**1212423**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.030	0.0050	0.02500	0.004658	100	70	130	2.11	20	
Uranium	0.027	0.0025	0.01250	0.01370	107	70	130	0.220	20	

Sample ID	**1611072-004FMSDL**	SampType:	**MSDLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-42**	Batch ID:	**28728**		RunNo:	**38800**				
Prep Date:	**11/16/2016**	Analysis Date:	**11/17/2016**		SeqNo:	**1212424**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.017	0.00050	0.01250	0.002840	110	70	130	1.33	20	

Sample ID	**1611072-004FMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-42**	Batch ID:	**28728**		RunNo:	**38800**				
Prep Date:	**11/16/2016**	Analysis Date:	**11/17/2016**		SeqNo:	**1212425**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0050	0.02500	0.004658	97.5	70	130			
Uranium	0.027	0.0025	0.01250	0.01370	107	70	130			

Sample ID	**1611072-004FMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-42**	Batch ID:	**28728**		RunNo:	**38800**				
Prep Date:	**11/16/2016**	Analysis Date:	**11/17/2016**		SeqNo:	**1212426**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.017	0.00050	0.01250	0.002840	111	70	130			

Sample ID	**MB-28728**	SampType:	**MBLK**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**PBW**	Batch ID:	**28728**		RunNo:	**38800**				
Prep Date:	**11/16/2016**	Analysis Date:	**11/17/2016**		SeqNo:	**1212465**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-28728**	SampType:	**LCS**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**LCSW**	Batch ID:	**28728**		RunNo:	**38800**				
Prep Date:	**11/16/2016**	Analysis Date:	**11/17/2016**		SeqNo:	**1212466**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**MSLCS-28728**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**28728**	RunNo:	**38800**					
Prep Date:	**11/16/2016**	Analysis Date:	**11/17/2016**	SeqNo:	**1212466**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.9	85	115			
Lead	0.012	0.00050	0.01250	0	98.9	85	115			
Selenium	0.024	0.0010	0.02500	0	97.1	85	115			
Uranium	0.012	0.00050	0.01250	0	98.5	85	115			

Sample ID	**MSLLLCS-28728**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**28728**	RunNo:	**38800**					
Prep Date:	**11/16/2016**	Analysis Date:	**11/17/2016**	SeqNo:	**1212467**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	106	50	150			
Lead	0.00047	0.00050	0.0005000	0	94.2	50	150			J
Selenium	0.00097	0.0010	0.001000	0	97.5	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	97.3	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**MB-28645**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**28645**	RunNo:	**38727**					
Prep Date:	**11/14/2016**	Analysis Date:	**11/15/2016**	SeqNo:	**1209690**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-28645**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**28645**	RunNo:	**38727**					
Prep Date:	**11/14/2016**	Analysis Date:	**11/15/2016**	SeqNo:	**1209691**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.4	80	120			

Sample ID	**MB-28670**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**28670**	RunNo:	**38727**					
Prep Date:	**11/15/2016**	Analysis Date:	**11/15/2016**	SeqNo:	**1209725**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-28670**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**28670**	RunNo:	**38727**					
Prep Date:	**11/15/2016**	Analysis Date:	**11/15/2016**	SeqNo:	**1209726**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0052	0.00020	0.005000	0	104	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R38417**	RunNo: **38417**
Prep Date:	Analysis Date: **11/2/2016**	SeqNo: **1199909** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	0.11	0.50								J
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	0.15	0.50								J
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R38417**	RunNo: **38417**
Prep Date:	Analysis Date: **11/2/2016**	SeqNo: **1199910** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	105	90	110			
Chloride	4.7	0.50	5.000	0	93.4	90	110			
Bromide	2.4	0.10	2.500	0	94.2	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.3	90	110			
Sulfate	9.6	0.50	10.00	0	96.2	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.3	90	110			

Sample ID **1611072-011FMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **MKTF-25**	Batch ID: **R38417**	RunNo: **38417**
Prep Date:	Analysis Date: **11/2/2016**	SeqNo: **1199922** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0.05170	93.1	74.5	121			
Phosphorus, Orthophosphate (As P	4.2	0.50	5.000	0	84.9	80.8	114			
Sulfate	45	0.50	10.00	35.60	98.4	83	118			

Sample ID **1611072-011FMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **MKTF-25**	Batch ID: **R38417**	RunNo: **38417**
Prep Date:	Analysis Date: **11/2/2016**	SeqNo: **1199923** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0.05170	93.6	74.5	121	0.424	20	
Phosphorus, Orthophosphate (As P	4.3	0.50	5.000	0	85.2	80.8	114	0.379	20	
Sulfate	46	0.50	10.00	35.60	99.3	83	118	0.181	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R38550**	RunNo: **38550**
Prep Date:	Analysis Date: **11/8/2016**	SeqNo: **1204438** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R38550**	RunNo: **38550**
Prep Date:	Analysis Date: **11/8/2016**	SeqNo: **1204439** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.3	90	110			
Sulfate	9.7	0.50	10.00	0	97.3	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	98.4	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R38595**	RunNo: **38595**
Prep Date:	Analysis Date: **11/9/2016**	SeqNo: **1205548** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R38595**	RunNo: **38595**
Prep Date:	Analysis Date: **11/9/2016**	SeqNo: **1205550** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	98.9	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R38671**	RunNo: **38671**
Prep Date:	Analysis Date: **11/11/2016**	SeqNo: **1207765** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	ND	0.10								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R38671**	RunNo: **38671**
Prep Date:	Analysis Date: **11/11/2016**	SeqNo: **1207766** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.4	0.10	2.500	0	95.5	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**MB-28583**	SampType:	**MBLK**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**PBW**	Batch ID:	**28583**	RunNo:	**38602**					
Prep Date:	**11/10/2016**	Analysis Date:	**11/10/2016**	SeqNo:	**1205731**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID	**LCS-28583**	SampType:	**LCS**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**LCSW**	Batch ID:	**28583**	RunNo:	**38602**					
Prep Date:	**11/10/2016**	Analysis Date:	**11/10/2016**	SeqNo:	**1205732**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.092	0.010	0.1000	0	91.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **1611072-001CMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **MKTF-31**	Batch ID: **28435**	RunNo: **38418**
Prep Date: **11/2/2016**	Analysis Date: **11/3/2016**	SeqNo: **1200512** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	116	79.6	148			
Surr: DNOP	0.54		0.5000		109	77.1	144			

Sample ID **1611072-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **MKTF-31**	Batch ID: **28435**	RunNo: **38418**
Prep Date: **11/2/2016**	Analysis Date: **11/3/2016**	SeqNo: **1200514** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	117	79.6	148	0.346	20	
Surr: DNOP	0.55		0.5000		110	77.1	144	0	0	

Sample ID **LCS-28435**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **28435**	RunNo: **38418**
Prep Date: **11/2/2016**	Analysis Date: **11/3/2016**	SeqNo: **1200529** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.5	1.0	5.000	0	110	63.2	155			
Surr: DNOP	0.52		0.5000		104	77.1	144			

Sample ID **MB-28435**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **28435**	RunNo: **38418**
Prep Date: **11/2/2016**	Analysis Date: **11/3/2016**	SeqNo: **1200530** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		112	77.1	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G38528**	RunNo: **38528**
Prep Date:	Analysis Date: **11/8/2016**	SeqNo: **1203934** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		88.7	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G38528**	RunNo: **38528**
Prep Date:	Analysis Date: **11/8/2016**	SeqNo: **1203935** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	91.9	80	120			
Surr: BFB	19		20.00		93.3	66.4	120			

Sample ID **1611072-011BMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-25**	Batch ID: **G38528**	RunNo: **38528**
Prep Date:	Analysis Date: **11/8/2016**	SeqNo: **1203949** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	1.0	10.00	9.968	71.5	64.8	129			
Surr: BFB	420		400.0		105	66.4	120			

Sample ID **1611072-011BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-25**	Batch ID: **G38528**	RunNo: **38528**
Prep Date:	Analysis Date: **11/8/2016**	SeqNo: **1203951** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	16	1.0	10.00	9.968	63.0	64.8	129	5.10	20	S
Surr: BFB	410		400.0		102	66.4	120	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R38506**	RunNo: **38506**
Prep Date:	Analysis Date: **11/7/2016**	SeqNo: **1202664** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	70	130			
Toluene	20	1.0	20.00	0	102	70	130			
Chlorobenzene	19	1.0	20.00	0	96.5	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	106	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	94.6	70	130			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.3	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.4	70	130			
Surr: Dibromofluoromethane	9.9		10.00		98.6	70	130			
Surr: Toluene-d8	9.9		10.00		98.6	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38506**	RunNo: **38506**
Prep Date:	Analysis Date: **11/7/2016**	SeqNo: **1202690** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**
13-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38506**	RunNo: **38506**
Prep Date:	Analysis Date: **11/7/2016**	SeqNo: **1202690** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38506**	RunNo: **38506**
Prep Date:	Analysis Date: **11/7/2016**	SeqNo: **1202690** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.7	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		93.9	70	130			
Surr: Dibromofluoromethane	11		10.00		106	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID **1611072-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-31**	Batch ID: **R38506**	RunNo: **38506**
Prep Date:	Analysis Date: **11/7/2016**	SeqNo: **1203338** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0.4822	101	70	130			
Toluene	20	1.0	20.00	0.1540	101	70	130			
Chlorobenzene	20	1.0	20.00	0	98.1	70	130			
1,1-Dichloroethene	84	1.0	20.00	56.90	136	70	130			S
Trichloroethene (TCE)	22	1.0	20.00	3.655	89.7	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.3	70	130			
Surr: Dibromofluoromethane	9.9		10.00		98.8	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID **1611072-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-31**	Batch ID: **R38506**	RunNo: **38506**
Prep Date:	Analysis Date: **11/7/2016**	SeqNo: **1203339** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0.4822	97.0	70	130	4.19	20	
Toluene	19	1.0	20.00	0.1540	95.7	70	130	5.11	20	
Chlorobenzene	19	1.0	20.00	0	93.2	70	130	5.07	20	
1,1-Dichloroethene	80	1.0	20.00	56.90	115	70	130	5.17	20	
Trichloroethene (TCE)	21	1.0	20.00	3.655	88.6	70	130	0.952	20	
Surr: 1,2-Dichloroethane-d4	10		10.00		99.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.0		10.00		90.5	70	130	0	0	
Surr: Dibromofluoromethane	9.7		10.00		97.4	70	130	0	0	
Surr: Toluene-d8	10		10.00		99.7	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R38539**	RunNo: **38539**
Prep Date:	Analysis Date: **11/8/2016**	SeqNo: **1203796** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.7	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.8	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38539**	RunNo: **38539**
Prep Date:	Analysis Date: **11/8/2016**	SeqNo: **1203798** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Bromobenzene	ND	1.0								
Bromoform	ND	1.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
1,1-Dichloroethane	ND	1.0								
Hexachlorobutadiene	ND	1.0								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.6	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.0	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38539**	RunNo: **38539**
Prep Date:	Analysis Date: **11/8/2016**	SeqNo: **1203798** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	11		10.00		106	70	130			
Surr: Toluene-d8	10		10.00		99.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **1611072-001ems**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **MKTF-31**	Batch ID: **28471**	RunNo: **38544**
Prep Date: **11/4/2016**	Analysis Date: **11/8/2016**	SeqNo: **1204017** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	53	10	100.0	0	53.2	27.6	123			
4-Chloro-3-methylphenol	80	10	200.0	0	40.2	29.3	126			
2-Chlorophenol	74	10	200.0	0	37.0	15	133			
1,4-Dichlorobenzene	37	10	100.0	0	36.8	17.6	127			
2,4-Dinitrotoluene	58	10	100.0	0	57.5	38.9	98.5			
N-Nitrosodi-n-propylamine	63	10	100.0	0	62.8	25.9	131			
4-Nitrophenol	48	10	200.0	0	24.1	15	102			
Pentachlorophenol	72	20	200.0	0	35.8	15	120			
Phenol	48	10	200.0	0	24.0	15	100			
Pyrene	57	10	100.0	0	57.1	22.8	126			
1,2,4-Trichlorobenzene	43	10	100.0	0	43.1	15	143			
Surr: 2-Fluorophenol	55		200.0		27.3	15	98.1			
Surr: Phenol-d5	50		200.0		25.0	15	80.7			
Surr: 2,4,6-Tribromophenol	84		200.0		42.2	15	112			
Surr: Nitrobenzene-d5	65		100.0		64.6	27.2	90.7			
Surr: 2-Fluorobiphenyl	50		100.0		50.1	23.3	85.6			
Surr: 4-Terphenyl-d14	37		100.0		36.8	27.6	107			

Sample ID **1611072-001emsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **MKTF-31**	Batch ID: **28471**	RunNo: **38544**
Prep Date: **11/4/2016**	Analysis Date: **11/8/2016**	SeqNo: **1204018** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	55	10	100.0	0	54.6	27.6	123	2.49	31.3	
4-Chloro-3-methylphenol	80	10	200.0	0	39.8	29.3	126	1.10	29	
2-Chlorophenol	74	10	200.0	0	37.0	15	133	0.0270	28.4	
1,4-Dichlorobenzene	35	10	100.0	0	35.0	17.6	127	5.02	28.2	
2,4-Dinitrotoluene	55	10	100.0	0	54.9	38.9	98.5	4.73	22.9	
N-Nitrosodi-n-propylamine	65	10	100.0	0	65.4	25.9	131	3.96	28.8	
4-Nitrophenol	41	10	200.0	0	20.4	15	102	16.7	41.5	
Pentachlorophenol	68	20	200.0	0	34.0	15	120	5.12	45.1	
Phenol	47	10	200.0	0	23.4	15	100	2.36	33.9	
Pyrene	60	10	100.0	0	60.4	22.8	126	5.58	33.6	
1,2,4-Trichlorobenzene	42	10	100.0	0	41.6	15	143	3.59	28.2	
Surr: 2-Fluorophenol	56		200.0		27.8	15	98.1	0	0	
Surr: Phenol-d5	50		200.0		25.0	15	80.7	0	0	
Surr: 2,4,6-Tribromophenol	75		200.0		37.4	15	112	0	0	
Surr: Nitrobenzene-d5	69		100.0		68.7	27.2	90.7	0	0	
Surr: 2-Fluorobiphenyl	50		100.0		49.8	23.3	85.6	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **1611072-001emsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **MKTF-31**	Batch ID: **28471**	RunNo: **38544**
Prep Date: **11/4/2016**	Analysis Date: **11/8/2016**	SeqNo: **1204018** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	48		100.0		47.7	27.6	107	0	0	

Sample ID **lcs-28471**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **28471**	RunNo: **38544**
Prep Date: **11/4/2016**	Analysis Date: **11/8/2016**	SeqNo: **1204034** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	62	10	100.0	0	61.6	42.9	100			
4-Chloro-3-methylphenol	140	10	200.0	0	71.3	36.2	110			
2-Chlorophenol	130	10	200.0	0	66.3	33.4	97.8			
1,4-Dichlorobenzene	51	10	100.0	0	51.1	32.8	79.3			
2,4-Dinitrotoluene	61	10	100.0	0	61.2	34.9	107			
N-Nitrosodi-n-propylamine	66	10	100.0	0	66.0	30.7	111			
4-Nitrophenol	93	10	200.0	0	46.5	15	91.9			
Pentachlorophenol	110	20	200.0	0	52.6	33.3	93.5			
Phenol	99	10	200.0	0	49.3	20.9	86.4			
Pyrene	63	10	100.0	0	63.1	45.6	111			
1,2,4-Trichlorobenzene	59	10	100.0	0	58.8	38.7	88.2			
Surr: 2-Fluorophenol	110		200.0		54.8	15	98.1			
Surr: Phenol-d5	110		200.0		53.6	15	80.7			
Surr: 2,4,6-Tribromophenol	130		200.0		66.2	15	112			
Surr: Nitrobenzene-d5	66		100.0		66.1	27.2	90.7			
Surr: 2-Fluorobiphenyl	62		100.0		62.0	23.3	85.6			
Surr: 4-Terphenyl-d14	56		100.0		56.0	27.6	107			

Sample ID **mb-28471**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28471**	RunNo: **38544**
Prep Date: **11/4/2016**	Analysis Date: **11/8/2016**	SeqNo: **1204035** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**
13-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th QTR (MKTF)

Sample ID **mb-28471**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28471**	RunNo: **38544**
Prep Date: **11/4/2016**	Analysis Date: **11/8/2016**	SeqNo: **1204035** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzoic acid	9.0	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	6.5	10								J
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	2.7	10								J
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	7.4	10								J
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1611072**
13-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th QTR (MKTF)

Sample ID **mb-28471**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **28471**	RunNo: **38544**	
Prep Date: **11/4/2016**	Analysis Date: **11/8/2016**	SeqNo: **1204035**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	120		200.0		60.3	15	98.1			
Surr: Phenol-d5	110		200.0		54.4	15	80.7			
Surr: 2,4,6-Tribromophenol	140		200.0		71.4	15	112			
Surr: Nitrobenzene-d5	73		100.0		72.9	27.2	90.7			
Surr: 2-Fluorobiphenyl	66		100.0		65.7	23.3	85.6			
Surr: 4-Terphenyl-d14	58		100.0		58.2	27.6	107			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1611072 RcptNo: 1

Received by/date: AT 11/01/16

Logged By: Anne Thorne 11/1/2016 4:23:00 PM Anne Thorne

Completed By: Anne Thorne 11/2/2016 Anne Thorne

Reviewed By: AJ 11/02/16

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☑ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
9. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
10. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☑
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
14. Is it clear what analyses were requested? Yes ☑ No ☐
15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: 33 (<2 or >12 unless noted)
Adjusted? NO
Checked by: AJ

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: [ ] NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 4TH QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0°

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611072
10/31/16	0945	WATER	MKTF-31	40 ML VOA-5	HCL	-001
				40 ML VOA-3	HCL	-001
				1 L AMBER-2	NEAT	-001
				250ML AMBER-1	NEAT	-001
				500 ML PLASTIC-1	HNO_3	-001
				125 ML PLASTIC-1	HNO_3	-001
				125 ML PLASTIC-1	H_2SO_4	-001
				500 ML PLASTIC-1	NEAT	-001
	1100		MKTF-40	40 ML VOA-5	HCL	-002
				1 L AMBER-1	NEAT	-002
				250 ML AMBER-1	NEAT	-002
				500 ML PLASTIC-1	HNO_3	-002

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS / ANIONS	WQCC METALS	(TOTAL & DISSOLVED)	8011 (1,2-DIBROMOMETHANE)	Air Bubbles (Y or N)
		✓							✓						
														✓	
										✓					
		✓													
												✓			
											✓	✓			
											✓				
												✓			
		✓							✓						
										✓					
		✓													
												✓			

Date: 10/31/16 Time: 0654 Relinquished by:
Date: 10/31/16 Time: 1623 Relinquished by:

Received by: Date Time 11/1/16 1420
Received by: Date Time 11/01/16 1623

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2016 4TH QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611072
3/16	1100	WATER	MKTF-40	125 ML PLASTIC-1	HNO_3	002
				125 ML PLASTIC-1	H_2SO_4	002
				500 ML PLASTIC-1	NEAT	002
	1200		MKTF-43	40 ML VOA-5	HCL	003
				1 L AMBER-1	NEAT	003
				250 ML AMBER-1	NEAT	003
				500 ML PLASTIC-1	HNO_3	003
				125 ML PLASTIC-1	HNO_3	003
				125 ML PLASTIC-1	H_2SO_4	003
				500 ML PLASTIC-1	NEAT	003
	1310		MKTF-42	40 ML VOA-5	HCL	004
				1 L AMBER-1	NEAT	004

Analysis Request	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS / ANIONS	WQCC METALS (TOTAL & DISSOLVED)		Air Bubbles (Y or N)
002												✓	✓		
002												✓			
002													✓		
003			✓							✓					
003											✓				
003			✓												
003													✓		
003												✓	✓		
003												✓			
003													✓		
004			✓							✓					
004											✓				

Date: 3/16 Time: 654 Relinquished by:
Received by: Date Time 11/01/16 14:21

Date: 3/16 Time: 1622 Relinquished by:
Received by: Date Time 11/01/16 1622

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.

GALLUP ~~NM 8730~~ REFINERY

Mailing Address: 92 GIANT CROSSING RD

GALLUP, NM 87301

Phone #: 505-722-0231

Email or Fax#: CHERYL.JOHNSON@WNR.COM

QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)

Accreditation: ☐ NELAP ☐ Other

EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: 2016 4TH QTR (MKTF)

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0°

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611072
10/31/16	1310	WATER	MKTF-42	250 ML AMBER-1	NEAT	004
				500 ML PLASTIC-1	HNO_3	004
				125 ML PLASTIC-1	HNO_3	004
				125 ML PLASTIC-1	H_2SO_4	004
				500 ML PLASTIC-1	NEAT	004
	1415		MKTF-32	40 ML VOA-5	HCL	005
				40 ML VOA-3	HCL	005
				1 L AMBER-1	NEAT	005
				250 ML AMBER-1	NEAT	005
				500 ML PLASTIC-1	HNO_3	005
				125 ML PLASTIC-1	HNO_3	005
				125 ML PLASTIC-1	H_2SO_4	005

Analysis Request

	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)	8011 (1,2-DIBROMOMETHANE)	Air Bubbles (Y or N)
10/31/16 1310			✓													
													✓			
												✓	✓			
												✓				
													✓			
1415			✓							✓						
															✓	
											✓					
			✓													
													✓			
												✓	✓			
												✓				

Remarks:

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/31/16	0654		Eugene Begil	11/1/16	14:22
10/31/16	1622			11/01/16	1622

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: NESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2016 4TH QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
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Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611072	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS / ANIONS	WQCC METALS	(TOTAL & DISSOLVED)	8011 (1,2-DIBROMOMETHANE)	Air Bubbles (Y or N)
11/16	1415	WATER	MKTF-32	500 ML PLASTIC-1	NEAT	-005													✓			
	1515	WATER	FB@103116	40 ML VOA-5	HCL	-006			✓							✓						
				40 ML VOA-3	HCL	-006															✓	
				1L AMBER-1	NEAT	-006											✓					
				250 ML AMBER-1	NEAT	-006			✓										•			
				500 ML PLASTIC-1	HNO_3	-006													✓			
				125 ML PLASTIC-1	HNO_3	-006												✓	✓			
				125 ML PLASTIC-1	H_2SO_4	-006												✓				
				500 ML PLASTIC-1	NEAT	-006													✓			
	1540	WATER	MKTF-41	40 ML VOA-5	HCL	-007			✓							✓						
				40 ML VOA-3	HCL	-007															✓	
↓	↓	↓	↓	1L AMBER	NEAT	-007											✓					

Date: 11/16 Time: 0654 Relinquished by:
Received by: Date 11/01/16 Time 14:23

Date: 11/16 Time: 1621 Relinquished by:
Received by: Date 11/01/16 Time 1621

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard / [X] Level 4 (Full Validation)
Accreditation: NELAP / ☐ Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard ☐ Rush
Project Name: 2016 4TH QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611072	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED) 8011/12 Dibromo...	Air Bubbles (Y or N)
31/16	1540	WATER	MKTF-41	40 ML / 250 ML AMBER-1	NEAT	001			✓												
				500 ML PLASTIC-1	HNO_3	001													✓		
				125 ML PLASTIC-1	HNO_3	001												✓	✓		
				125 ML PLASTIC-1	H_2SO_4	001												✓			
	↓			500 ML PLASTIC-1	NEAT	001													✓		
	—		DUP02	40 ML VOA-5	HCL	002			✓							✓					
				40 ML VOA-3	HCL	003														✓	
				1 L AMBER-1	NEAT	004											✓				
				250 ML AMBER-1	NEAT	005			✓												
				500 ML PLASTIC-1	HNO_3	006													✓		
				125 ML PLASTIC-1	HNO_3	007												✓	✓		
				125 ML PLASTIC-1	H_2SO_4	008												✓			

Date: 11/1/16 Time: 0654 Relinquished by:
Received by: Date 11/1/16 Time 14:25
Date: 11/1/16 Time: 16:21 Relinquished by:
Received by: Date 11/01/16 Time 1624

Remarks:

AT 11/02/16

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package:
☐ Standard ☒ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: 4TH 2016 ~~3RD~~ Q'TR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611672	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS (TOTAL & DISSOLVED)	Air Bubbles (Y or N)
10/31/16	—	WATER	DUP02	500ML PLASTIC-1	NEAT	-008													✓	
10/31/16	—	WATER	TRIP BLANK	40 ML VOA-4	HCL	-009			X							✓				

Date: 11/1/16 Time: 0654 Relinquished by:
Received by: Date 11/1/16 Time 1420
Date: 11/1/16 Time: 1620 Relinquished by:
Received by: Date 11/01/16 Time 1620

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: WESTERN REFINING SW, INC.

GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING RD

GALLUP, NM 87301

Phone #: 505-722-0231

Email or Fax#: CHERYL.JOHNSON@WNR.COM

QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)

Accreditation: ☐ NELAP ☐ Other

EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: 2016 4TH QTR (MKTF)

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HEAL No. 1611072

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
11/16	0745	WATER	MKTF-44	40 ML VOA-5	HCL	-010
				1 L AMBER-1	NEAT	-010
				250 ML AMBER-1	NEAT	-010
				500 ML PLASTIC-1	HNO_3	-010
				125 ML PLASTIC-1	HNO_3	-010
				125 ML PLASTIC-1	H_2SO_4	-010
				500 ML PLASTIC-1	NEAT	-010
11/16	0820	WATER	MKTF-25	40 ML VOA-5	HCL	-011
				40 ML VOA-3	HCL	-011
				1 L AMBER-1	NEAT	-011
				500 ML PLASTIC-1	HNO_3	-011
				125 ML PLASTIC-1	HNO_3	-011

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)	8011 1,2-DIBROMOMETHANE	Air Bubbles (Y or N)
		✓							✓						
										✓					
		✓													
												✓			
											✓	✓			
											✓				
												✓			
		✓							✓						
														✓	
										✓					
												✓			
											✓	✓			

Remarks:

Date	Time	Relinquished by:	Received by:	Date	Time
11/16	1234			11/1/16	14:21
11/1/16	16:20			11/02/16	1620

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP NM, 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
EDD (Type) EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 4thQTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

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Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611072
1/6	0820	WATER	MKTF-2.5	250 mL AMBER-1	NEAT	-011
				125 mL PLASTIC-1	H_2SO_4	-011
				500 mL PLASTIC-1	NEAT	-011
1/6	—	WATER	DUP03	40 mL VOA-5	HCL	-012
				40 mL VOA-3	HCL	-012
				1 L AMBER-1	NEAT	-012
				250 mL AMBER-1	NEAT	-012
				500 mL PLASTIC-1	HNO_3	-012
				125 mL PLASTIC-1	HNO_3	-012
				125 mL PLASTIC-1	H_2SO_4	-012
				500 mL PLASTIC-1	NEAT	-012

Analysis Request

	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)	8011 (1,2-DIBROMOMETHANE)	Air Bubbles (Y or N)
1/6 0820 WATER MKTF-2.5 250 mL AMBER-1 NEAT -011			✓													
1/6 — WATER DUP03 125 mL PLASTIC-1 H_2SO_4 -011												✓				
500 mL PLASTIC-1 NEAT -011													✓			
40 mL VOA-5 HCL -012			✓							✓						
40 mL VOA-3 HCL -012															✓	
1 L AMBER-1 NEAT -012											✓					
250 mL AMBER-1 NEAT -012			✓													
500 mL PLASTIC-1 HNO_3 -012													✓			
125 mL PLASTIC-1 HNO_3 -012												✓	✓			
125 mL PLASTIC-1 H_2SO_4 -012												✓				
500 mL PLASTIC-1 NEAT -012													✓			

Date: 1/6 Time: 1234 Relinquished by: [signature]
Received by: [signature] Date: 1/6/16 Time: 14:22

Date: 1/6/16 Time: 16:26 Relinquished by: [signature]
Received by: [signature] Date: 11/6/16 Time: 1620

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 08, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 4th QTR (MKTF) OrderNo.: 1611145

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 11/2/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-33
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 1:05:00 PM
Lab ID: 1611145-001 **Matrix:** AQUEOUS **Received Date:** 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/8/2016 3:53:23 PM	28516
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/8/2016 3:53:23 PM	28516
Surr: DNOP	102	0	77.1-144		%Rec	1	11/8/2016 3:53:23 PM	28516
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.31	0.13	0.25		mg/L	5	11/4/2016 10:31:49 PM	G38456
Surr: BFB	88.2	0	66.4-120		%Rec	5	11/4/2016 10:31:49 PM	G38456
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.29	0.050	0.10		mg/L	1	11/3/2016 3:25:41 PM	R38449
Chloride	87	1.0	10		mg/L	20	11/3/2016 3:38:06 PM	R38449
Bromide	0.46	0.044	0.10		mg/L	1	11/3/2016 3:25:41 PM	R38449
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/3/2016 3:25:41 PM	R38449
Sulfate	320	2.8	10		mg/L	20	11/3/2016 3:38:06 PM	R38449
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	11/3/2016 4:15:19 PM	R38449
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.041	0.0013	0.0020		mg/L	1	11/21/2016 5:03:46 PM	C38875
Cadmium	ND	0.00075	0.0020		mg/L	1	11/21/2016 5:03:46 PM	C38875
Calcium	91	0.50	1.0		mg/L	1	11/22/2016 7:12:12 PM	B38919
Chromium	ND	0.0018	0.0060		mg/L	1	11/21/2016 5:03:46 PM	C38875
Copper	ND	0.0040	0.0060		mg/L	1	11/21/2016 5:03:46 PM	C38875
Iron	ND	0.020	0.020		mg/L	1	11/21/2016 5:03:46 PM	C38875
Magnesium	20	0.50	1.0		mg/L	1	11/22/2016 7:12:12 PM	B38919
Manganese	0.13	0.00032	0.0020	*	mg/L	1	11/21/2016 5:03:46 PM	C38875
Potassium	1.0	0.50	1.0		mg/L	1	11/22/2016 7:12:12 PM	B38919
Silver	ND	0.0028	0.0050		mg/L	1	11/21/2016 5:03:46 PM	C38875
Sodium	310	0.50	1.0		mg/L	5	11/22/2016 7:13:58 PM	B38919
Zinc	0.017	0.0028	0.010		mg/L	1	11/21/2016 5:03:46 PM	C38875
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.11	0.00079	0.0020		mg/L	1	11/19/2016 2:34:21 PM	28729
Cadmium	ND	0.0015	0.0020		mg/L	1	11/19/2016 2:34:21 PM	28729
Chromium	ND	0.0027	0.0060		mg/L	1	11/19/2016 2:34:21 PM	28729
Copper	ND	0.0030	0.0060		mg/L	1	11/19/2016 2:34:21 PM	28729
Iron	3.1	0.10	0.10	*	mg/L	5	11/28/2016 9:04:48 AM	28729
Manganese	0.25	0.00027	0.0020	*	mg/L	1	11/19/2016 2:34:21 PM	28729
Silver	ND	0.0015	0.0050		mg/L	1	11/28/2016 8:52:03 AM	28729
Zinc	0.0060	0.0027	0.010	J	mg/L	1	11/19/2016 2:34:21 PM	28729
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0011	0.00069	0.0050	J	mg/L	5	11/22/2016 1:45:02 PM	B38934

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-33
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 1:05:00 PM
Lab ID: 1611145-001 **Matrix:** AQUEOUS **Received Date:** 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00017	0.00050		mg/L	1	11/18/2016 6:16:27 PM	A38851
Selenium	0.0028	0.00021	0.0010		mg/L	1	11/18/2016 6:16:27 PM	A38851
Uranium	0.038	0.00026	0.0025	*	mg/L	5	11/22/2016 1:45:02 PM	B38934
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0021	0.0011	0.0050	J	mg/L	5	11/17/2016 7:04:27 PM	28729
Lead	0.0025	0.000082	0.00050		mg/L	1	11/17/2016 4:25:00 PM	28729
Selenium	0.0024	0.00094	0.0050	J	mg/L	5	11/17/2016 7:04:27 PM	28729
Uranium	0.034	0.00087	0.0025	*	mg/L	5	11/17/2016 7:04:27 PM	28729
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000054	0.00020		mg/L	1	11/15/2016 6:44:23 PM	28670
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Acenaphthylene	ND	2.4	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Aniline	ND	2.4	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Anthracene	ND	2.5	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Azobenzene	ND	2.7	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Benzoic acid	13	2.6	20	J	µg/L	1	11/8/2016 4:19:23 PM	28471
Benzyl alcohol	ND	3.0	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Bis(2-ethylhexyl)phthalate	6.6	2.6	10	J	µg/L	1	11/8/2016 4:19:23 PM	28471
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Butyl benzyl phthalate	2.7	2.5	10	J	µg/L	1	11/8/2016 4:19:23 PM	28471
Carbazole	ND	2.3	10		µg/L	1	11/8/2016 4:19:23 PM	28471
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/8/2016 4:19:23 PM	28471
4-Chloroaniline	ND	2.7	10		µg/L	1	11/8/2016 4:19:23 PM	28471
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/8/2016 4:19:23 PM	28471
2-Chlorophenol	ND	2.2	10		µg/L	1	11/8/2016 4:19:23 PM	28471
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Chrysene	ND	2.8	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Di-n-octyl phthalate	7.8	2.0	10	J	µg/L	1	11/8/2016 4:19:23 PM	28471

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-33
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 1:05:00 PM
Lab ID: 1611145-001 **Matrix:** AQUEOUS **Received Date:** 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Dibenzofuran	ND	2.5	10		µg/L	1	11/8/2016 4:19:23 PM	28471
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 4:19:23 PM	28471
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 4:19:23 PM	28471
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/8/2016 4:19:23 PM	28471
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Diethyl phthalate	ND	2.7	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 4:19:23 PM	28471
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/8/2016 4:19:23 PM	28471
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/8/2016 4:19:23 PM	28471
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/8/2016 4:19:23 PM	28471
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/8/2016 4:19:23 PM	28471
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/8/2016 4:19:23 PM	28471
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Fluoranthene	ND	2.6	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Fluorene	ND	2.7	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Hexachloroethane	ND	2.4	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Isophorone	ND	2.6	10		µg/L	1	11/8/2016 4:19:23 PM	28471
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 4:19:23 PM	28471
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 4:19:23 PM	28471
2-Methylphenol	ND	2.5	10		µg/L	1	11/8/2016 4:19:23 PM	28471
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/8/2016 4:19:23 PM	28471
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/8/2016 4:19:23 PM	28471
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/8/2016 4:19:23 PM	28471
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Naphthalene	ND	2.6	10		µg/L	1	11/8/2016 4:19:23 PM	28471
2-Nitroaniline	ND	2.8	10		µg/L	1	11/8/2016 4:19:23 PM	28471
3-Nitroaniline	ND	2.9	10		µg/L	1	11/8/2016 4:19:23 PM	28471
4-Nitroaniline	ND	2.6	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Nitrobenzene	ND	2.8	10		µg/L	1	11/8/2016 4:19:23 PM	28471
2-Nitrophenol	ND	2.4	10		µg/L	1	11/8/2016 4:19:23 PM	28471
4-Nitrophenol	ND	2.6	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Pentachlorophenol	ND	2.3	20		µg/L	1	11/8/2016 4:19:23 PM	28471
Phenanthrene	ND	2.6	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Phenol	ND	2.0	10		µg/L	1	11/8/2016 4:19:23 PM	28471

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-33
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 1:05:00 PM
Lab ID: 1611145-001 **Matrix:** AQUEOUS **Received Date:** 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	3.1	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Pyridine	ND	2.2	10		µg/L	1	11/8/2016 4:19:23 PM	28471
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 4:19:23 PM	28471
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/8/2016 4:19:23 PM	28471
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/8/2016 4:19:23 PM	28471
Surr: 2-Fluorophenol	28.1	0	15-98.1		%Rec	1	11/8/2016 4:19:23 PM	28471
Surr: Phenol-d5	23.2	0	15-80.7		%Rec	1	11/8/2016 4:19:23 PM	28471
Surr: 2,4,6-Tribromophenol	36.2	0	15-112		%Rec	1	11/8/2016 4:19:23 PM	28471
Surr: Nitrobenzene-d5	62.5	0	27.2-90.7		%Rec	1	11/8/2016 4:19:23 PM	28471
Surr: 2-Fluorobiphenyl	47.5	0	23.3-85.6		%Rec	1	11/8/2016 4:19:23 PM	28471
Surr: 4-Terphenyl-d14	41.7	0	27.6-107		%Rec	1	11/8/2016 4:19:23 PM	28471
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
Toluene	0.15	0.12	1.0	J	µg/L	1	11/3/2016 5:31:23 PM	R38431
Ethylbenzene	0.19	0.11	1.0	J	µg/L	1	11/3/2016 5:31:23 PM	R38431
Methyl tert-butyl ether (MTBE)	200	2.1	10		µg/L	10	11/3/2016 5:02:43 PM	R38431
1,2,4-Trimethylbenzene	0.30	0.11	1.0	J	µg/L	1	11/3/2016 5:31:23 PM	R38431
1,3,5-Trimethylbenzene	0.15	0.12	1.0	J	µg/L	1	11/3/2016 5:31:23 PM	R38431
1,2-Dichloroethane (EDC)	0.34	0.12	1.0	J	µg/L	1	11/3/2016 5:31:23 PM	R38431
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
Naphthalene	0.73	0.093	2.0	J	µg/L	1	11/3/2016 5:31:23 PM	R38431
1-Methylnaphthalene	0.69	0.20	4.0	J	µg/L	1	11/3/2016 5:31:23 PM	R38431
2-Methylnaphthalene	0.76	0.16	4.0	J	µg/L	1	11/3/2016 5:31:23 PM	R38431
Acetone	ND	4.9	10		µg/L	1	11/3/2016 5:31:23 PM	R38431
Bromobenzene	ND	0.098	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
Bromoform	ND	0.10	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
Bromomethane	ND	0.78	3.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
2-Butanone	ND	0.74	10		µg/L	1	11/3/2016 5:31:23 PM	R38431
Carbon disulfide	ND	0.60	10		µg/L	1	11/3/2016 5:31:23 PM	R38431
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
Chloroethane	ND	0.19	2.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
Chloroform	ND	0.089	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
Chloromethane	ND	0.21	3.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431

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Lab ID: 1611145-001 **Matrix:** AQUEOUS **Received Date:** 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
Dibromomethane	ND	0.12	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
2-Hexanone	ND	0.84	10		µg/L	1	11/3/2016 5:31:23 PM	R38431
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
4-Isopropyltoluene	0.20	0.14	1.0	J	µg/L	1	11/3/2016 5:31:23 PM	R38431
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/3/2016 5:31:23 PM	R38431
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
n-Butylbenzene	0.42	0.16	3.0	J	µg/L	1	11/3/2016 5:31:23 PM	R38431
n-Propylbenzene	0.44	0.13	1.0	J	µg/L	1	11/3/2016 5:31:23 PM	R38431
sec-Butylbenzene	0.95	0.12	1.0	J	µg/L	1	11/3/2016 5:31:23 PM	R38431
Styrene	0.28	0.11	1.0	J	µg/L	1	11/3/2016 5:31:23 PM	R38431
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
Tetrachloroethene (PCE)	0.18	0.15	1.0	J	µg/L	1	11/3/2016 5:31:23 PM	R38431
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/3/2016 5:31:23 PM	R38431
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/3/2016 5:31:23 PM	R38431
Surr: 1,2-Dichloroethane-d4	99.4	0	70-130		%Rec	1	11/3/2016 5:31:23 PM	R38431

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Lab ID: 1611145-001 **Matrix:** AQUEOUS **Received Date:** 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 4-Bromofluorobenzene	91.6	0	70-130		%Rec	1	11/3/2016 5:31:23 PM	R38431
Surr: Dibromofluoromethane	104	0	70-130		%Rec	1	11/3/2016 5:31:23 PM	R38431
Surr: Toluene-d8	99.7	0	70-130		%Rec	1	11/3/2016 5:31:23 PM	R38431

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Client Sample ID: MKTF-22
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 1:55:00 PM
Lab ID: 1611145-002
Matrix: AQUEOUS
Received Date: 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	2.1	0.69	1.0		mg/L	1	11/8/2016 5:00:54 PM	28516
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/8/2016 5:00:54 PM	28516
Surr: DNOP	103	0	77.1-144		%Rec	1	11/8/2016 5:00:54 PM	28516
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	26	1.3	2.5		mg/L	50	11/8/2016 11:03:17 AM	G38456
Surr: BFB	89.6	0	66.4-120		%Rec	50	11/8/2016 11:03:17 AM	G38456
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.41	0.050	0.10		mg/L	1	11/3/2016 1:46:26 PM	R38449
Chloride	100	1.0	10		mg/L	20	11/3/2016 1:58:50 PM	R38449
Nitrogen, Nitrite (As N)	ND	0.052	0.10		mg/L	1	11/3/2016 1:46:26 PM	R38449
Bromide	0.44	0.044	0.10		mg/L	1	11/3/2016 1:46:26 PM	R38449
Nitrogen, Nitrate (As N)	ND	0.041	0.10		mg/L	1	11/3/2016 1:46:26 PM	R38449
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50		mg/L	1	11/3/2016 1:46:26 PM	R38449
Sulfate	3.3	0.14	0.50		mg/L	1	11/3/2016 1:46:26 PM	R38449
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	1.2	0.0066	0.010		mg/L	5	11/21/2016 5:09:16 PM	C38875
Cadmium	ND	0.00075	0.0020		mg/L	1	11/21/2016 5:07:37 PM	C38875
Calcium	130	0.50	1.0		mg/L	5	11/22/2016 7:17:17 PM	B38919
Chromium	ND	0.0018	0.0060		mg/L	1	11/21/2016 5:07:37 PM	C38875
Copper	ND	0.0040	0.0060		mg/L	1	11/21/2016 5:07:37 PM	C38875
Iron	3.0	0.10	0.10	*	mg/L	5	11/21/2016 5:09:16 PM	C38875
Magnesium	25	0.50	1.0		mg/L	1	11/22/2016 7:15:44 PM	B38919
Manganese	2.5	0.0016	0.010	*	mg/L	5	11/21/2016 5:09:16 PM	C38875
Potassium	0.81	0.50	1.0	J	mg/L	1	11/22/2016 7:15:44 PM	B38919
Silver	ND	0.0028	0.0050		mg/L	1	11/21/2016 5:07:37 PM	C38875
Sodium	270	0.50	1.0		mg/L	5	11/22/2016 7:17:17 PM	B38919
Zinc	0.0099	0.0028	0.010	J	mg/L	1	11/21/2016 5:07:37 PM	C38875
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	1.7	0.0040	0.010		mg/L	5	11/28/2016 9:12:39 AM	28729
Cadmium	ND	0.0015	0.0020		mg/L	1	11/19/2016 2:39:28 PM	28729
Chromium	0.0062	0.0027	0.0060		mg/L	1	11/19/2016 2:39:28 PM	28729
Copper	0.0096	0.0030	0.0060		mg/L	1	11/19/2016 2:39:28 PM	28729
Iron	12	0.40	0.40	*	mg/L	20	11/28/2016 9:14:27 AM	28729
Manganese	3.1	0.0014	0.010	*	mg/L	5	11/28/2016 9:12:39 AM	28729
Silver	ND	0.0015	0.0050		mg/L	1	11/19/2016 2:39:28 PM	28729
Zinc	0.020	0.0027	0.010		mg/L	1	11/19/2016 2:39:28 PM	28729
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	

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EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0021	0.00014	0.0010		mg/L	1	11/18/2016 6:22:34 PM	A38851
Lead	ND	0.00017	0.00050		mg/L	1	11/18/2016 6:22:34 PM	A38851
Selenium	0.0038	0.00021	0.0010		mg/L	1	11/18/2016 6:22:34 PM	A38851
Uranium	0.0024	0.000051	0.00050		mg/L	1	11/18/2016 6:22:34 PM	A38851
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0044	0.0011	0.0050	J	mg/L	5	11/29/2016 7:34:28 PM	28876
Lead	0.033	0.00041	0.0025	*	mg/L	5	11/29/2016 7:34:28 PM	28876
Selenium	0.0047	0.00094	0.0050	J	mg/L	5	11/29/2016 7:34:28 PM	28876
Uranium	0.0041	0.00017	0.00050		mg/L	1	11/29/2016 7:29:20 PM	28876
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000054	0.00020		mg/L	1	11/15/2016 6:52:32 PM	28670
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	3.8	2.6	10	J	µg/L	1	11/8/2016 4:47:06 PM	28471
Acenaphthylene	ND	2.4	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Aniline	ND	2.4	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Anthracene	ND	2.5	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Azobenzene	ND	2.7	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Benzoic acid	18	2.6	20	J	µg/L	1	11/8/2016 4:47:06 PM	28471
Benzyl alcohol	ND	3.0	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Bis(2-ethylhexyl)phthalate	6.8	2.6	10	J	µg/L	1	11/8/2016 4:47:06 PM	28471
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Carbazole	4.9	2.3	10	J	µg/L	1	11/8/2016 4:47:06 PM	28471
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/8/2016 4:47:06 PM	28471
4-Chloroaniline	ND	2.7	10		µg/L	1	11/8/2016 4:47:06 PM	28471
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/8/2016 4:47:06 PM	28471
2-Chlorophenol	ND	2.2	10		µg/L	1	11/8/2016 4:47:06 PM	28471
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Chrysene	ND	2.8	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 4:47:06 PM	28471

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-22
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 1:55:00 PM
Lab ID: 1611145-002
Matrix: AQUEOUS
Received Date: 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	7.3	2.0	10	J	µg/L	1	11/8/2016 4:47:06 PM	28471
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Dibenzofuran	ND	2.5	10		µg/L	1	11/8/2016 4:47:06 PM	28471
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 4:47:06 PM	28471
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 4:47:06 PM	28471
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/8/2016 4:47:06 PM	28471
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Diethyl phthalate	ND	2.7	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 4:47:06 PM	28471
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/8/2016 4:47:06 PM	28471
2,4-Dimethylphenol	3.7	3.0	10	J	µg/L	1	11/8/2016 4:47:06 PM	28471
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/8/2016 4:47:06 PM	28471
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/8/2016 4:47:06 PM	28471
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/8/2016 4:47:06 PM	28471
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Fluoranthene	ND	2.6	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Fluorene	5.7	2.7	10	J	µg/L	1	11/8/2016 4:47:06 PM	28471
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Hexachloroethane	ND	2.4	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Isophorone	ND	2.6	10		µg/L	1	11/8/2016 4:47:06 PM	28471
1-Methylnaphthalene	70	2.9	10		µg/L	1	11/8/2016 4:47:06 PM	28471
2-Methylnaphthalene	13	2.9	10		µg/L	1	11/8/2016 4:47:06 PM	28471
2-Methylphenol	ND	2.5	10		µg/L	1	11/8/2016 4:47:06 PM	28471
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/8/2016 4:47:06 PM	28471
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/8/2016 4:47:06 PM	28471
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/8/2016 4:47:06 PM	28471
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Naphthalene	52	2.6	10		µg/L	1	11/8/2016 4:47:06 PM	28471
2-Nitroaniline	ND	2.8	10		µg/L	1	11/8/2016 4:47:06 PM	28471
3-Nitroaniline	ND	2.9	10		µg/L	1	11/8/2016 4:47:06 PM	28471
4-Nitroaniline	ND	2.6	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Nitrobenzene	ND	2.8	10		µg/L	1	11/8/2016 4:47:06 PM	28471
2-Nitrophenol	ND	2.4	10		µg/L	1	11/8/2016 4:47:06 PM	28471
4-Nitrophenol	ND	2.6	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Pentachlorophenol	ND	2.3	20		µg/L	1	11/8/2016 4:47:06 PM	28471
Phenanthrene	ND	2.6	10		µg/L	1	11/8/2016 4:47:06 PM	28471

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-22
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 1:55:00 PM
Lab ID: 1611145-002 **Matrix:** AQUEOUS **Received Date:** 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	23	2.0	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Pyrene	ND	3.1	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Pyridine	ND	2.2	10		µg/L	1	11/8/2016 4:47:06 PM	28471
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 4:47:06 PM	28471
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/8/2016 4:47:06 PM	28471
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/8/2016 4:47:06 PM	28471
Surr: 2-Fluorophenol	46.3	0	15-98.1		%Rec	1	11/8/2016 4:47:06 PM	28471
Surr: Phenol-d5	39.4	0	15-80.7		%Rec	1	11/8/2016 4:47:06 PM	28471
Surr: 2,4,6-Tribromophenol	65.5	0	15-112		%Rec	1	11/8/2016 4:47:06 PM	28471
Surr: Nitrobenzene-d5	65.9	0	27.2-90.7		%Rec	1	11/8/2016 4:47:06 PM	28471
Surr: 2-Fluorobiphenyl	58.2	0	23.3-85.6		%Rec	1	11/8/2016 4:47:06 PM	28471
Surr: 4-Terphenyl-d14	61.6	0	27.6-107		%Rec	1	11/8/2016 4:47:06 PM	28471
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	3700	9.6	100		µg/L	100	11/3/2016 6:00:10 PM	R38431
Toluene	32	1.2	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
Ethylbenzene	460	1.1	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
Methyl tert-butyl ether (MTBE)	8000	21	100		µg/L	100	11/3/2016 6:00:10 PM	R38431
1,2,4-Trimethylbenzene	15	1.1	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
1,3,5-Trimethylbenzene	1.9	1.2	10	J	µg/L	10	11/3/2016 6:29:00 PM	R38431
1,2-Dichloroethane (EDC)	ND	1.2	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
Naphthalene	70	0.93	20		µg/L	10	11/3/2016 6:29:00 PM	R38431
1-Methylnaphthalene	94	2.0	40		µg/L	10	11/3/2016 6:29:00 PM	R38431
2-Methylnaphthalene	16	1.6	40	J	µg/L	10	11/3/2016 6:29:00 PM	R38431
Acetone	ND	49	100		µg/L	10	11/3/2016 6:29:00 PM	R38431
Bromobenzene	ND	0.98	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
Bromodichloromethane	ND	1.4	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
Bromoform	ND	1.0	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
Bromomethane	ND	7.8	30		µg/L	10	11/3/2016 6:29:00 PM	R38431
2-Butanone	ND	7.4	100		µg/L	10	11/3/2016 6:29:00 PM	R38431
Carbon disulfide	ND	6.0	100		µg/L	10	11/3/2016 6:29:00 PM	R38431
Carbon Tetrachloride	ND	1.1	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
Chlorobenzene	ND	1.1	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
Chloroethane	ND	1.9	20		µg/L	10	11/3/2016 6:29:00 PM	R38431
Chloroform	ND	0.89	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
Chloromethane	ND	2.1	30		µg/L	10	11/3/2016 6:29:00 PM	R38431
2-Chlorotoluene	ND	4.0	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
4-Chlorotoluene	ND	1.3	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
cis-1,2-DCE	6.6	1.2	10	J	µg/L	10	11/3/2016 6:29:00 PM	R38431

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-22
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 1:55:00 PM
Lab ID: 1611145-002 **Matrix:** AQUEOUS **Received Date:** 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	11/3/2016 6:29:00 PM	R38431
Dibromochloromethane	ND	0.87	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
Dibromomethane	ND	1.2	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
1,1-Dichloroethane	ND	1.1	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
1,1-Dichloroethene	6.8	1.1	10	J	µg/L	10	11/3/2016 6:29:00 PM	R38431
1,2-Dichloropropane	ND	1.1	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
1,3-Dichloropropane	ND	1.6	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
2,2-Dichloropropane	ND	1.7	20		µg/L	10	11/3/2016 6:29:00 PM	R38431
1,1-Dichloropropene	ND	1.3	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
Hexachlorobutadiene	ND	2.0	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
2-Hexanone	ND	8.4	100		µg/L	10	11/3/2016 6:29:00 PM	R38431
Isopropylbenzene	18	1.0	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
4-Isopropyltoluene	4.1	1.4	10	J	µg/L	10	11/3/2016 6:29:00 PM	R38431
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	11/3/2016 6:29:00 PM	R38431
Methylene Chloride	ND	1.9	30		µg/L	10	11/3/2016 6:29:00 PM	R38431
n-Butylbenzene	13	1.6	30	J	µg/L	10	11/3/2016 6:29:00 PM	R38431
n-Propylbenzene	44	1.3	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
sec-Butylbenzene	7.8	1.2	10	J	µg/L	10	11/3/2016 6:29:00 PM	R38431
Styrene	2.1	1.1	10	J	µg/L	10	11/3/2016 6:29:00 PM	R38431
tert-Butylbenzene	ND	1.2	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	11/3/2016 6:29:00 PM	R38431
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
trans-1,2-DCE	ND	4.0	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
1,2,4-Trichlorobenzene	3.0	1.3	10	J	µg/L	10	11/3/2016 6:29:00 PM	R38431
1,1,1-Trichloroethane	ND	0.91	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
Trichlorofluoromethane	ND	2.0	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	11/3/2016 6:29:00 PM	R38431
Vinyl chloride	ND	2.0	10		µg/L	10	11/3/2016 6:29:00 PM	R38431
Xylenes, Total	54	3.7	15		µg/L	10	11/3/2016 6:29:00 PM	R38431

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-22
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 1:55:00 PM
Lab ID: 1611145-002
Matrix: AQUEOUS
Received Date: 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	91.7	0	70-130		%Rec	10	11/3/2016 6:29:00 PM	R38431
Surr: 4-Bromofluorobenzene	88.3	0	70-130		%Rec	10	11/3/2016 6:29:00 PM	R38431
Surr: Dibromofluoromethane	98.5	0	70-130		%Rec	10	11/3/2016 6:29:00 PM	R38431
Surr: Toluene-d8	98.8	0	70-130		%Rec	10	11/3/2016 6:29:00 PM	R38431

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-38
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 3:15:00 PM
Lab ID: 1611145-003 **Matrix:** AQUEOUS **Received Date:** 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/8/2016 5:22:33 PM	28516
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/8/2016 5:22:33 PM	28516
Surr: DNOP	109	0	77.1-144		%Rec	1	11/8/2016 5:22:33 PM	28516
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.065	0.025	0.050		mg/L	1	11/5/2016 12:08:56 AM	G38456
Surr: BFB	86.6	0	66.4-120		%Rec	1	11/5/2016 12:08:56 AM	G38456
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.82	0.050	0.10		mg/L	1	11/3/2016 2:11:14 PM	R38449
Chloride	200	1.0	10		mg/L	20	11/3/2016 2:23:39 PM	R38449
Nitrogen, Nitrite (As N)	0.14	0.052	0.10		mg/L	1	11/3/2016 2:11:14 PM	R38449
Bromide	0.52	0.044	0.10		mg/L	1	11/3/2016 2:11:14 PM	R38449
Nitrogen, Nitrate (As N)	8.8	0.041	0.10		mg/L	1	11/3/2016 2:11:14 PM	R38449
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50		mg/L	1	11/3/2016 2:11:14 PM	R38449
Sulfate	320	2.8	10		mg/L	20	11/3/2016 2:23:39 PM	R38449
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.044	0.0013	0.0020		mg/L	1	11/21/2016 5:11:17 PM	C38875
Cadmium	ND	0.00075	0.0020		mg/L	1	11/21/2016 5:11:17 PM	C38875
Calcium	160	0.50	1.0		mg/L	5	11/22/2016 7:26:04 PM	B38919
Chromium	ND	0.0018	0.0060		mg/L	1	11/21/2016 5:11:17 PM	C38875
Copper	ND	0.0040	0.0060		mg/L	1	11/21/2016 5:11:17 PM	C38875
Iron	0.038	0.020	0.020		mg/L	1	11/21/2016 5:11:17 PM	C38875
Magnesium	31	0.50	1.0		mg/L	1	11/22/2016 7:24:19 PM	B38919
Manganese	3.3	0.0016	0.010	*	mg/L	5	11/21/2016 5:22:28 PM	C38875
Potassium	0.69	0.50	1.0	J	mg/L	1	11/22/2016 7:24:19 PM	B38919
Silver	ND	0.0028	0.0050		mg/L	1	11/21/2016 5:11:17 PM	C38875
Sodium	230	0.50	1.0		mg/L	5	11/22/2016 7:26:04 PM	B38919
Zinc	ND	0.0028	0.010		mg/L	1	11/21/2016 5:11:17 PM	C38875
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.12	0.00079	0.0020		mg/L	1	11/19/2016 2:41:15 PM	28729
Cadmium	ND	0.0015	0.0020		mg/L	1	11/19/2016 2:41:15 PM	28729
Chromium	ND	0.0027	0.0060		mg/L	1	11/19/2016 2:41:15 PM	28729
Copper	ND	0.0030	0.0060		mg/L	1	11/19/2016 2:41:15 PM	28729
Iron	1.7	0.10	0.10	*	mg/L	5	11/28/2016 9:16:24 AM	28729
Manganese	3.3	0.0014	0.010	*	mg/L	5	11/28/2016 9:16:24 AM	28729
Silver	ND	0.0015	0.0050		mg/L	1	11/19/2016 2:41:15 PM	28729
Zinc	0.0069	0.0027	0.010	J	mg/L	1	11/19/2016 2:41:15 PM	28729
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-38
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 3:15:00 PM
Lab ID: 1611145-003 **Matrix:** AQUEOUS **Received Date:** 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0014	0.00069	0.0050	J	mg/L	5	11/22/2016 1:51:09 PM	B38934
Lead	ND	0.00017	0.00050		mg/L	1	11/18/2016 6:25:37 PM	A38851
Selenium	0.0040	0.00021	0.0010		mg/L	1	11/18/2016 6:25:37 PM	A38851
Uranium	0.013	0.000051	0.00050		mg/L	1	11/18/2016 6:25:37 PM	A38851
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0022	0.00021	0.0010		mg/L	1	11/17/2016 4:37:02 PM	28729
Lead	0.0033	0.000082	0.00050		mg/L	1	11/17/2016 4:37:02 PM	28729
Selenium	0.0035	0.00094	0.0050	J	mg/L	5	11/17/2016 7:16:28 PM	28729
Uranium	0.014	0.00017	0.00050		mg/L	1	11/17/2016 4:37:02 PM	28729
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000054	0.00020		mg/L	1	11/15/2016 6:54:31 PM	28670
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Acenaphthylene	ND	2.4	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Aniline	ND	2.4	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Anthracene	ND	2.5	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Azobenzene	ND	2.7	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Benzoic acid	8.7	2.6	20	J	µg/L	1	11/8/2016 5:14:48 PM	28471
Benzyl alcohol	ND	3.0	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Bis(2-ethylhexyl)phthalate	6.4	2.6	10	J	µg/L	1	11/8/2016 5:14:48 PM	28471
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Butyl benzyl phthalate	2.7	2.5	10	J	µg/L	1	11/8/2016 5:14:48 PM	28471
Carbazole	ND	2.3	10		µg/L	1	11/8/2016 5:14:48 PM	28471
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/8/2016 5:14:48 PM	28471
4-Chloroaniline	ND	2.7	10		µg/L	1	11/8/2016 5:14:48 PM	28471
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/8/2016 5:14:48 PM	28471
2-Chlorophenol	ND	2.2	10		µg/L	1	11/8/2016 5:14:48 PM	28471
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Chrysene	ND	2.8	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 5:14:48 PM	28471

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Hall Environmental Analysis Laboratory, Inc.

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Lab ID: 1611145-003
Matrix: AQUEOUS
Received Date: 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	7.8	2.0	10	J	µg/L	1	11/8/2016 5:14:48 PM	28471
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Dibenzofuran	ND	2.5	10		µg/L	1	11/8/2016 5:14:48 PM	28471
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 5:14:48 PM	28471
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 5:14:48 PM	28471
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/8/2016 5:14:48 PM	28471
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Diethyl phthalate	ND	2.7	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 5:14:48 PM	28471
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/8/2016 5:14:48 PM	28471
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/8/2016 5:14:48 PM	28471
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/8/2016 5:14:48 PM	28471
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/8/2016 5:14:48 PM	28471
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/8/2016 5:14:48 PM	28471
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Fluoranthene	ND	2.6	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Fluorene	ND	2.7	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Hexachloroethane	ND	2.4	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Isophorone	ND	2.6	10		µg/L	1	11/8/2016 5:14:48 PM	28471
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 5:14:48 PM	28471
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 5:14:48 PM	28471
2-Methylphenol	ND	2.5	10		µg/L	1	11/8/2016 5:14:48 PM	28471
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/8/2016 5:14:48 PM	28471
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/8/2016 5:14:48 PM	28471
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/8/2016 5:14:48 PM	28471
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Naphthalene	ND	2.6	10		µg/L	1	11/8/2016 5:14:48 PM	28471
2-Nitroaniline	ND	2.8	10		µg/L	1	11/8/2016 5:14:48 PM	28471
3-Nitroaniline	ND	2.9	10		µg/L	1	11/8/2016 5:14:48 PM	28471
4-Nitroaniline	ND	2.6	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Nitrobenzene	ND	2.8	10		µg/L	1	11/8/2016 5:14:48 PM	28471
2-Nitrophenol	ND	2.4	10		µg/L	1	11/8/2016 5:14:48 PM	28471
4-Nitrophenol	ND	2.6	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Pentachlorophenol	ND	2.3	20		µg/L	1	11/8/2016 5:14:48 PM	28471
Phenanthrene	ND	2.6	10		µg/L	1	11/8/2016 5:14:48 PM	28471

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Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 3:15:00 PM
Lab ID: 1611145-003 **Matrix:** AQUEOUS **Received Date:** 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	ND	2.0	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Pyrene	ND	3.1	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Pyridine	ND	2.2	10		µg/L	1	11/8/2016 5:14:48 PM	28471
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 5:14:48 PM	28471
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/8/2016 5:14:48 PM	28471
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/8/2016 5:14:48 PM	28471
Surr: 2-Fluorophenol	25.4	0	15-98.1		%Rec	1	11/8/2016 5:14:48 PM	28471
Surr: Phenol-d5	34.4	0	15-80.7		%Rec	1	11/8/2016 5:14:48 PM	28471
Surr: 2,4,6-Tribromophenol	32.8	0	15-112		%Rec	1	11/8/2016 5:14:48 PM	28471
Surr: Nitrobenzene-d5	66.3	0	27.2-90.7		%Rec	1	11/8/2016 5:14:48 PM	28471
Surr: 2-Fluorobiphenyl	55.2	0	23.3-85.6		%Rec	1	11/8/2016 5:14:48 PM	28471
Surr: 4-Terphenyl-d14	63.1	0	27.6-107		%Rec	1	11/8/2016 5:14:48 PM	28471
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	0.39	0.096	1.0	J	µg/L	1	11/3/2016 7:26:40 PM	R38431
Toluene	ND	0.12	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
Methyl tert-butyl ether (MTBE)	1.0	0.21	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
1,2,4-Trimethylbenzene	0.12	0.11	1.0	J	µg/L	1	11/3/2016 7:26:40 PM	R38431
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
Naphthalene	ND	0.093	2.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
Acetone	ND	4.9	10		µg/L	1	11/3/2016 7:26:40 PM	R38431
Bromobenzene	ND	0.098	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
Bromoform	ND	0.10	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
Bromomethane	ND	0.78	3.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
2-Butanone	ND	0.74	10		µg/L	1	11/3/2016 7:26:40 PM	R38431
Carbon disulfide	ND	0.60	10		µg/L	1	11/3/2016 7:26:40 PM	R38431
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
Chloroethane	ND	0.19	2.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
Chloroform	0.13	0.089	1.0	J	µg/L	1	11/3/2016 7:26:40 PM	R38431
Chloromethane	ND	0.21	3.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
cis-1,2-DCE	2.4	0.12	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
Dibromomethane	ND	0.12	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
1,4-Dichlorobenzene	0.37	0.14	1.0	J	µg/L	1	11/3/2016 7:26:40 PM	R38431
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
1,1-Dichloroethane	2.9	0.11	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
1,1-Dichloroethene	0.53	0.11	1.0	J	µg/L	1	11/3/2016 7:26:40 PM	R38431
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
2-Hexanone	ND	0.84	10		µg/L	1	11/3/2016 7:26:40 PM	R38431
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/3/2016 7:26:40 PM	R38431
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
n-Propylbenzene	0.21	0.13	1.0	J	µg/L	1	11/3/2016 7:26:40 PM	R38431
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
Styrene	ND	0.11	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
Tetrachloroethene (PCE)	0.20	0.15	1.0	J	µg/L	1	11/3/2016 7:26:40 PM	R38431
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
1,2,4-Trichlorobenzene	0.20	0.13	1.0	J	µg/L	1	11/3/2016 7:26:40 PM	R38431
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
Trichloroethene (TCE)	0.22	0.18	1.0	J	µg/L	1	11/3/2016 7:26:40 PM	R38431
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/3/2016 7:26:40 PM	R38431
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/3/2016 7:26:40 PM	R38431

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-38
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 3:15:00 PM
Lab ID: 1611145-003
Matrix: AQUEOUS
Received Date: 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	96.0	0	70-130		%Rec	1	11/3/2016 7:26:40 PM	R38431
Surr: 4-Bromofluorobenzene	95.8	0	70-130		%Rec	1	11/3/2016 7:26:40 PM	R38431
Surr: Dibromofluoromethane	107	0	70-130		%Rec	1	11/3/2016 7:26:40 PM	R38431
Surr: Toluene-d8	97.7	0	70-130		%Rec	1	11/3/2016 7:26:40 PM	R38431

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-39
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 4:25:00 PM
Lab ID: 1611145-004 **Matrix:** AQUEOUS **Received Date:** 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	17	0.69	1.0		mg/L	1	11/8/2016 5:44:12 PM	28516
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/8/2016 5:44:12 PM	28516
Surr: DNOP	105	0	77.1-144		%Rec	1	11/8/2016 5:44:12 PM	28516
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.36	0.051	0.10		mg/L	2	11/5/2016 12:33:10 AM	G38456
Surr: BFB	189	0	66.4-120	S	%Rec	2	11/5/2016 12:33:10 AM	G38456
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.97	0.25	0.50		mg/L	5	11/3/2016 2:36:03 PM	R38449
Chloride	1300	5.1	50		mg/L	100	11/9/2016 11:03:18 PM	R38595
Nitrogen, Nitrite (As N)	ND	0.26	0.50		mg/L	5	11/3/2016 2:36:03 PM	R38449
Bromide	1.7	0.22	0.50		mg/L	5	11/3/2016 2:36:03 PM	R38449
Nitrogen, Nitrate (As N)	ND	0.20	0.50		mg/L	5	11/3/2016 2:36:03 PM	R38449
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5		mg/L	5	11/3/2016 2:36:03 PM	R38449
Sulfate	ND	0.71	2.5		mg/L	5	11/3/2016 2:36:03 PM	R38449
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	6.0	0.0013	0.0020	*	mg/L	10	11/22/2016 7:29:36 PM	B38919
Cadmium	ND	0.00075	0.0020		mg/L	1	11/21/2016 5:24:21 PM	C38875
Calcium	91	0.50	1.0		mg/L	1	11/22/2016 7:27:53 PM	B38919
Chromium	ND	0.0018	0.0060		mg/L	1	11/21/2016 5:24:21 PM	C38875
Copper	ND	0.0040	0.0060		mg/L	1	11/21/2016 5:24:21 PM	C38875
Iron	6.9	0.020	0.020	*	mg/L	10	11/22/2016 7:29:36 PM	B38919
Magnesium	31	0.50	1.0		mg/L	1	11/22/2016 7:27:53 PM	B38919
Manganese	1.2	0.0016	0.010	*	mg/L	5	11/21/2016 5:26:10 PM	C38875
Potassium	5.6	0.50	1.0		mg/L	1	11/22/2016 7:27:53 PM	B38919
Silver	ND	0.0028	0.0050		mg/L	1	11/21/2016 5:24:21 PM	C38875
Sodium	1100	0.50	1.0		mg/L	50	11/22/2016 7:31:27 PM	B38919
Zinc	ND	0.0028	0.010		mg/L	1	11/21/2016 5:24:21 PM	C38875
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	6.1	0.0079	0.020	*	mg/L	10	11/28/2016 9:18:23 AM	28729
Cadmium	ND	0.0015	0.0020		mg/L	1	11/19/2016 2:49:05 PM	28729
Chromium	ND	0.0027	0.0060		mg/L	1	11/19/2016 2:49:05 PM	28729
Copper	ND	0.0030	0.0060		mg/L	1	11/19/2016 2:49:05 PM	28729
Iron	8.7	0.20	0.20	*	mg/L	10	11/28/2016 9:18:23 AM	28729
Manganese	1.3	0.0027	0.020	*	mg/L	10	11/28/2016 9:18:23 AM	28729
Silver	ND	0.0015	0.0050		mg/L	1	11/19/2016 2:49:05 PM	28729
Zinc	0.0093	0.0027	0.010	J	mg/L	1	11/19/2016 2:49:05 PM	28729
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-39
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 4:25:00 PM
Lab ID: 1611145-004 **Matrix:** AQUEOUS **Received Date:** 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0036	0.00069	0.0050	J	mg/L	5	11/22/2016 1:54:12 PM	B38934
Lead	0.00045	0.00017	0.00050	J	mg/L	1	11/18/2016 6:34:50 PM	A38851
Selenium	0.010	0.0011	0.0050		mg/L	5	11/22/2016 1:54:12 PM	B38934
Uranium	0.000078	0.000051	0.00050	J	mg/L	1	11/18/2016 6:34:50 PM	A38851
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0037	0.0011	0.0050	J	mg/L	5	11/17/2016 7:19:29 PM	28729
Lead	0.0046	0.00041	0.0025		mg/L	5	11/17/2016 7:19:29 PM	28729
Selenium	0.0084	0.0019	0.010	J	mg/L	10	11/17/2016 5:28:03 PM	28729
Uranium	ND	0.00087	0.0025		mg/L	5	11/17/2016 7:19:29 PM	28729
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000054	0.00020		mg/L	1	11/15/2016 6:56:29 PM	28670
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	2.6	2.6	10	J	µg/L	1	11/8/2016 5:42:30 PM	28471
Acenaphthylene	ND	2.4	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Aniline	ND	2.4	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Anthracene	ND	2.5	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Azobenzene	ND	2.7	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Benzoic acid	16	2.6	20	J	µg/L	1	11/8/2016 5:42:30 PM	28471
Benzyl alcohol	ND	3.0	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Bis(2-ethylhexyl)phthalate	6.7	2.6	10	J	µg/L	1	11/8/2016 5:42:30 PM	28471
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Carbazole	16	2.3	10		µg/L	1	11/8/2016 5:42:30 PM	28471
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/8/2016 5:42:30 PM	28471
4-Chloroaniline	ND	2.7	10		µg/L	1	11/8/2016 5:42:30 PM	28471
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/8/2016 5:42:30 PM	28471
2-Chlorophenol	ND	2.2	10		µg/L	1	11/8/2016 5:42:30 PM	28471
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Chrysene	ND	2.8	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 5:42:30 PM	28471

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-39
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 4:25:00 PM
Lab ID: 1611145-004 **Matrix:** AQUEOUS **Received Date:** 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	7.0	2.0	10	J	µg/L	1	11/8/2016 5:42:30 PM	28471
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Dibenzofuran	3.2	2.5	10	J	µg/L	1	11/8/2016 5:42:30 PM	28471
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 5:42:30 PM	28471
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 5:42:30 PM	28471
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/8/2016 5:42:30 PM	28471
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Diethyl phthalate	ND	2.7	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 5:42:30 PM	28471
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/8/2016 5:42:30 PM	28471
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/8/2016 5:42:30 PM	28471
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/8/2016 5:42:30 PM	28471
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/8/2016 5:42:30 PM	28471
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/8/2016 5:42:30 PM	28471
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Fluoranthene	ND	2.6	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Fluorene	8.6	2.7	10	J	µg/L	1	11/8/2016 5:42:30 PM	28471
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Hexachloroethane	ND	2.4	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Isophorone	ND	2.6	10		µg/L	1	11/8/2016 5:42:30 PM	28471
1-Methylnaphthalene	98	2.9	10		µg/L	1	11/8/2016 5:42:30 PM	28471
2-Methylnaphthalene	39	2.9	10		µg/L	1	11/8/2016 5:42:30 PM	28471
2-Methylphenol	ND	2.5	10		µg/L	1	11/8/2016 5:42:30 PM	28471
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/8/2016 5:42:30 PM	28471
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/8/2016 5:42:30 PM	28471
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/8/2016 5:42:30 PM	28471
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Naphthalene	54	2.6	10		µg/L	1	11/8/2016 5:42:30 PM	28471
2-Nitroaniline	ND	2.8	10		µg/L	1	11/8/2016 5:42:30 PM	28471
3-Nitroaniline	ND	2.9	10		µg/L	1	11/8/2016 5:42:30 PM	28471
4-Nitroaniline	ND	2.6	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Nitrobenzene	ND	2.8	10		µg/L	1	11/8/2016 5:42:30 PM	28471
2-Nitrophenol	ND	2.4	10		µg/L	1	11/8/2016 5:42:30 PM	28471
4-Nitrophenol	ND	2.6	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Pentachlorophenol	ND	2.3	20		µg/L	1	11/8/2016 5:42:30 PM	28471
Phenanthrene	7.4	2.6	10	J	µg/L	1	11/8/2016 5:42:30 PM	28471

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-39
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 4:25:00 PM
Lab ID: 1611145-004 **Matrix:** AQUEOUS **Received Date:** 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	ND	2.0	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Pyrene	4.8	3.1	10	J	µg/L	1	11/8/2016 5:42:30 PM	28471
Pyridine	ND	2.2	10		µg/L	1	11/8/2016 5:42:30 PM	28471
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 5:42:30 PM	28471
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/8/2016 5:42:30 PM	28471
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/8/2016 5:42:30 PM	28471
Surr: 2-Fluorophenol	26.9	0	15-98.1		%Rec	1	11/8/2016 5:42:30 PM	28471
Surr: Phenol-d5	26.2	0	15-80.7		%Rec	1	11/8/2016 5:42:30 PM	28471
Surr: 2,4,6-Tribromophenol	42.8	0	15-112		%Rec	1	11/8/2016 5:42:30 PM	28471
Surr: Nitrobenzene-d5	63.8	0	27.2-90.7		%Rec	1	11/8/2016 5:42:30 PM	28471
Surr: 2-Fluorobiphenyl	41.8	0	23.3-85.6		%Rec	1	11/8/2016 5:42:30 PM	28471
Surr: 4-Terphenyl-d14	42.1	0	27.6-107		%Rec	1	11/8/2016 5:42:30 PM	28471
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	13	0.48	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
Toluene	ND	0.59	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
Ethylbenzene	59	0.56	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
1,2,4-Trimethylbenzene	24	0.55	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
Naphthalene	86	0.46	10		µg/L	5	11/3/2016 7:55:31 PM	R38431
1-Methylnaphthalene	150	1.0	20		µg/L	5	11/3/2016 7:55:31 PM	R38431
2-Methylnaphthalene	49	0.79	20		µg/L	5	11/3/2016 7:55:31 PM	R38431
Acetone	ND	25	50		µg/L	5	11/3/2016 7:55:31 PM	R38431
Bromobenzene	ND	0.49	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
Bromodichloromethane	ND	0.70	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
Bromoform	ND	0.51	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
Bromomethane	ND	3.9	15		µg/L	5	11/3/2016 7:55:31 PM	R38431
2-Butanone	ND	3.7	50		µg/L	5	11/3/2016 7:55:31 PM	R38431
Carbon disulfide	ND	3.0	50		µg/L	5	11/3/2016 7:55:31 PM	R38431
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
Chlorobenzene	ND	0.57	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
Chloroethane	ND	0.96	10		µg/L	5	11/3/2016 7:55:31 PM	R38431
Chloroform	ND	0.44	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
Chloromethane	ND	1.1	15		µg/L	5	11/3/2016 7:55:31 PM	R38431
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-39
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 4:25:00 PM
Lab ID: 1611145-004 **Matrix:** AQUEOUS **Received Date:** 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	11/3/2016 7:55:31 PM	R38431
Dibromochloromethane	ND	0.43	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
Dibromomethane	ND	0.60	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
2,2-Dichloropropane	ND	0.83	10		µg/L	5	11/3/2016 7:55:31 PM	R38431
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
2-Hexanone	ND	4.2	50		µg/L	5	11/3/2016 7:55:31 PM	R38431
Isopropylbenzene	23	0.52	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
4-Isopropyltoluene	5.4	0.70	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	11/3/2016 7:55:31 PM	R38431
Methylene Chloride	ND	0.94	15		µg/L	5	11/3/2016 7:55:31 PM	R38431
n-Butylbenzene	7.6	0.80	15	J	µg/L	5	11/3/2016 7:55:31 PM	R38431
n-Propylbenzene	28	0.66	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
sec-Butylbenzene	12	0.62	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
Styrene	ND	0.55	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
tert-Butylbenzene	0.72	0.58	5.0	J	µg/L	5	11/3/2016 7:55:31 PM	R38431
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	11/3/2016 7:55:31 PM	R38431
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	11/3/2016 7:55:31 PM	R38431
Vinyl chloride	ND	0.98	5.0		µg/L	5	11/3/2016 7:55:31 PM	R38431
Xylenes, Total	ND	1.8	7.5		µg/L	5	11/3/2016 7:55:31 PM	R38431

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-39
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 4:25:00 PM
Lab ID: 1611145-004 **Matrix:** AQUEOUS **Received Date:** 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	99.8	0	70-130		%Rec	5	11/3/2016 7:55:31 PM	R38431
Surr: 4-Bromofluorobenzene	84.8	0	70-130		%Rec	5	11/3/2016 7:55:31 PM	R38431
Surr: Dibromofluoromethane	108	0	70-130		%Rec	5	11/3/2016 7:55:31 PM	R38431
Surr: Toluene-d8	100	0	70-130		%Rec	5	11/3/2016 7:55:31 PM	R38431

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110116
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 1:25:00 PM
Lab ID: 1611145-005
Matrix: AQUEOUS
Received Date: 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/8/2016 6:06:02 PM	28516
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/8/2016 6:06:02 PM	28516
Surr: DNOP	104	0	77.1-144		%Rec	1	11/8/2016 6:06:02 PM	28516
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/5/2016 1:21:52 AM	G38456
Surr: BFB	85.2	0	66.4-120		%Rec	1	11/5/2016 1:21:52 AM	G38456
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	ND	0.050	0.10		mg/L	1	11/3/2016 3:00:52 PM	R38449
Chloride	ND	0.051	0.50		mg/L	1	11/3/2016 3:00:52 PM	R38449
Bromide	ND	0.044	0.10		mg/L	1	11/3/2016 3:00:52 PM	R38449
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/3/2016 3:00:52 PM	R38449
Sulfate	ND	0.14	0.50		mg/L	1	11/3/2016 3:00:52 PM	R38449
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	11/15/2016 11:51:20 AM	R38712
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	ND	0.0013	0.0020		mg/L	1	11/21/2016 5:27:59 PM	C38875
Cadmium	ND	0.00075	0.0020		mg/L	1	11/21/2016 5:27:59 PM	C38875
Calcium	ND	0.50	1.0		mg/L	1	11/22/2016 7:33:07 PM	B38919
Chromium	ND	0.0018	0.0060		mg/L	1	11/21/2016 5:27:59 PM	C38875
Copper	ND	0.0040	0.0060		mg/L	1	11/21/2016 5:27:59 PM	C38875
Iron	ND	0.020	0.020		mg/L	1	11/21/2016 5:27:59 PM	C38875
Magnesium	ND	0.50	1.0		mg/L	1	11/22/2016 7:33:07 PM	B38919
Manganese	ND	0.00032	0.0020		mg/L	1	11/21/2016 5:27:59 PM	C38875
Potassium	ND	0.50	1.0		mg/L	1	11/22/2016 7:33:07 PM	B38919
Silver	ND	0.0028	0.0050		mg/L	1	11/21/2016 5:27:59 PM	C38875
Sodium	ND	0.50	1.0		mg/L	1	11/22/2016 7:33:07 PM	B38919
Zinc	ND	0.0028	0.010		mg/L	1	11/21/2016 5:27:59 PM	C38875
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	ND	0.00079	0.0020		mg/L	1	11/19/2016 2:50:51 PM	28729
Cadmium	ND	0.0015	0.0020		mg/L	1	11/19/2016 2:50:51 PM	28729
Chromium	ND	0.0027	0.0060		mg/L	1	11/19/2016 2:50:51 PM	28729
Copper	ND	0.0030	0.0060		mg/L	1	11/19/2016 2:50:51 PM	28729
Iron	ND	0.020	0.020		mg/L	1	11/19/2016 2:50:51 PM	28729
Manganese	0.00070	0.00027	0.0020	J	mg/L	1	11/19/2016 2:50:51 PM	28729
Silver	ND	0.0015	0.0050		mg/L	1	11/19/2016 2:50:51 PM	28729
Zinc	ND	0.0027	0.010		mg/L	1	11/19/2016 2:50:51 PM	28729
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	ND	0.00014	0.0010		mg/L	1	11/18/2016 6:37:53 PM	A38851

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110116
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 1:25:00 PM
Lab ID: 1611145-005
Matrix: AQUEOUS
Received Date: 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00017	0.00050		mg/L	1	11/18/2016 6:37:53 PM	A38851
Selenium	ND	0.00021	0.0010		mg/L	1	11/18/2016 6:37:53 PM	A38851
Uranium	ND	0.000051	0.00050		mg/L	1	11/18/2016 6:37:53 PM	A38851
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.00021	0.0010		mg/L	1	11/17/2016 5:25:01 PM	28729
Lead	ND	0.000082	0.00050		mg/L	1	11/17/2016 5:25:01 PM	28729
Selenium	ND	0.00019	0.0010		mg/L	1	11/17/2016 5:25:01 PM	28729
Uranium	ND	0.00017	0.00050		mg/L	1	11/17/2016 5:25:01 PM	28729
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000054	0.00020		mg/L	1	11/15/2016 6:58:28 PM	28670
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Acenaphthylene	ND	2.4	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Aniline	ND	2.4	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Anthracene	ND	2.5	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Azobenzene	ND	2.7	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Benzoic acid	8.9	2.6	20	J	µg/L	1	11/8/2016 6:10:11 PM	28471
Benzyl alcohol	ND	3.0	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Bis(2-ethylhexyl)phthalate	6.7	2.6	10	J	µg/L	1	11/8/2016 6:10:11 PM	28471
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Butyl benzyl phthalate	2.7	2.5	10	J	µg/L	1	11/8/2016 6:10:11 PM	28471
Carbazole	ND	2.3	10		µg/L	1	11/8/2016 6:10:11 PM	28471
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/8/2016 6:10:11 PM	28471
4-Chloroaniline	ND	2.7	10		µg/L	1	11/8/2016 6:10:11 PM	28471
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/8/2016 6:10:11 PM	28471
2-Chlorophenol	ND	2.2	10		µg/L	1	11/8/2016 6:10:11 PM	28471
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Chrysene	ND	2.8	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Di-n-octyl phthalate	6.9	2.0	10	J	µg/L	1	11/8/2016 6:10:11 PM	28471

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110116
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 1:25:00 PM
Lab ID: 1611145-005
Matrix: AQUEOUS
Received Date: 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Dibenzofuran	ND	2.5	10		µg/L	1	11/8/2016 6:10:11 PM	28471
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 6:10:11 PM	28471
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/8/2016 6:10:11 PM	28471
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/8/2016 6:10:11 PM	28471
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Diethyl phthalate	ND	2.7	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/8/2016 6:10:11 PM	28471
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/8/2016 6:10:11 PM	28471
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/8/2016 6:10:11 PM	28471
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/8/2016 6:10:11 PM	28471
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/8/2016 6:10:11 PM	28471
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/8/2016 6:10:11 PM	28471
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Fluoranthene	ND	2.6	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Fluorene	ND	2.7	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Hexachloroethane	ND	2.4	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Isophorone	ND	2.6	10		µg/L	1	11/8/2016 6:10:11 PM	28471
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 6:10:11 PM	28471
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/8/2016 6:10:11 PM	28471
2-Methylphenol	ND	2.5	10		µg/L	1	11/8/2016 6:10:11 PM	28471
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/8/2016 6:10:11 PM	28471
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/8/2016 6:10:11 PM	28471
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/8/2016 6:10:11 PM	28471
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Naphthalene	ND	2.6	10		µg/L	1	11/8/2016 6:10:11 PM	28471
2-Nitroaniline	ND	2.8	10		µg/L	1	11/8/2016 6:10:11 PM	28471
3-Nitroaniline	ND	2.9	10		µg/L	1	11/8/2016 6:10:11 PM	28471
4-Nitroaniline	ND	2.6	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Nitrobenzene	ND	2.8	10		µg/L	1	11/8/2016 6:10:11 PM	28471
2-Nitrophenol	ND	2.4	10		µg/L	1	11/8/2016 6:10:11 PM	28471
4-Nitrophenol	ND	2.6	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Pentachlorophenol	ND	2.3	20		µg/L	1	11/8/2016 6:10:11 PM	28471
Phenanthrene	ND	2.6	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Phenol	ND	2.0	10		µg/L	1	11/8/2016 6:10:11 PM	28471

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110116
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 1:25:00 PM
Lab ID: 1611145-005 **Matrix:** AQUEOUS **Received Date:** 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	3.1	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Pyridine	ND	2.2	10		µg/L	1	11/8/2016 6:10:11 PM	28471
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/8/2016 6:10:11 PM	28471
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/8/2016 6:10:11 PM	28471
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/8/2016 6:10:11 PM	28471
Surr: 2-Fluorophenol	29.6	0	15-98.1		%Rec	1	11/8/2016 6:10:11 PM	28471
Surr: Phenol-d5	25.6	0	15-80.7		%Rec	1	11/8/2016 6:10:11 PM	28471
Surr: 2,4,6-Tribromophenol	38.8	0	15-112		%Rec	1	11/8/2016 6:10:11 PM	28471
Surr: Nitrobenzene-d5	69.6	0	27.2-90.7		%Rec	1	11/8/2016 6:10:11 PM	28471
Surr: 2-Fluorobiphenyl	51.5	0	23.3-85.6		%Rec	1	11/8/2016 6:10:11 PM	28471
Surr: 4-Terphenyl-d14	48.3	0	27.6-107		%Rec	1	11/8/2016 6:10:11 PM	28471
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Toluene	0.12	0.12	1.0	J	µg/L	1	11/3/2016 8:53:08 PM	R38431
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Naphthalene	ND	0.093	2.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
1-Methylnaphthalene	0.79	0.20	4.0	J	µg/L	1	11/3/2016 8:53:08 PM	R38431
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Acetone	6.5	4.9	10	J	µg/L	1	11/3/2016 8:53:08 PM	R38431
Bromobenzene	ND	0.098	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Bromoform	ND	0.10	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Bromomethane	ND	0.78	3.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
2-Butanone	ND	0.74	10		µg/L	1	11/3/2016 8:53:08 PM	R38431
Carbon disulfide	ND	0.60	10		µg/L	1	11/3/2016 8:53:08 PM	R38431
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Chloroethane	ND	0.19	2.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Chloroform	ND	0.089	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Chloromethane	ND	0.21	3.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110116
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 1:25:00 PM
Lab ID: 1611145-005 **Matrix:** AQUEOUS **Received Date:** 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Dibromomethane	ND	0.12	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
2-Hexanone	ND	0.84	10		µg/L	1	11/3/2016 8:53:08 PM	R38431
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/3/2016 8:53:08 PM	R38431
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Styrene	ND	0.11	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/3/2016 8:53:08 PM	R38431
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/3/2016 8:53:08 PM	R38431
Surr: 1,2-Dichloroethane-d4	94.9	0	70-130		%Rec	1	11/3/2016 8:53:08 PM	R38431

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110116
Project: 2016 4th QTR (MKTF)
Collection Date: 11/1/2016 1:25:00 PM
Lab ID: 1611145-005
Matrix: AQUEOUS
Received Date: 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 4-Bromofluorobenzene	92.5	0	70-130		%Rec	1	11/3/2016 8:53:08 PM	R38431
Surr: Dibromofluoromethane	103	0	70-130		%Rec	1	11/3/2016 8:53:08 PM	R38431
Surr: Toluene-d8	101	0	70-130		%Rec	1	11/3/2016 8:53:08 PM	R38431

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 4th QTR (MKTF)
Collection Date:
Lab ID: 1611145-006
Matrix: TRIP BLANK
Received Date: 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Toluene	ND	0.12	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Naphthalene	ND	0.093	2.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Acetone	ND	4.9	10		µg/L	1	11/3/2016 9:21:47 PM	R38431
Bromobenzene	ND	0.098	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Bromoform	ND	0.10	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Bromomethane	ND	0.78	3.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
2-Butanone	ND	0.74	10		µg/L	1	11/3/2016 9:21:47 PM	R38431
Carbon disulfide	ND	0.60	10		µg/L	1	11/3/2016 9:21:47 PM	R38431
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Chloroethane	ND	0.19	2.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Chloroform	ND	0.089	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Chloromethane	ND	0.21	3.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Dibromomethane	ND	0.12	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/3/2016 9:21:47 PM	R38431

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 4th QTR (MKTF)
Collection Date:
Lab ID: 1611145-006
Matrix: TRIP BLANK
Received Date: 11/2/2016 4:28:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
2-Hexanone	ND	0.84	10		µg/L	1	11/3/2016 9:21:47 PM	R38431
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/3/2016 9:21:47 PM	R38431
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Styrene	ND	0.11	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/3/2016 9:21:47 PM	R38431
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/3/2016 9:21:47 PM	R38431
Surr: 1,2-Dichloroethane-d4	97.0	0	70-130		%Rec	1	11/3/2016 9:21:47 PM	R38431
Surr: 4-Bromofluorobenzene	92.3	0	70-130		%Rec	1	11/3/2016 9:21:47 PM	R38431
Surr: Dibromofluoromethane	105	0	70-130		%Rec	1	11/3/2016 9:21:47 PM	R38431
Surr: Toluene-d8	101	0	70-130		%Rec	1	11/3/2016 9:21:47 PM	R38431

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611145**

08-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **MB-C**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C38875**	RunNo: **38875**
Prep Date:	Analysis Date: **11/21/2016**	SeqNo: **1215067** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C38875**	RunNo: **38875**
Prep Date:	Analysis Date: **11/21/2016**	SeqNo: **1215068** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0	104	85	115			
Cadmium	0.52	0.0020	0.5000	0	105	85	115			
Chromium	0.51	0.0060	0.5000	0	103	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Manganese	0.51	0.0020	0.5000	0	101	85	115			
Silver	0.11	0.0050	0.1000	0	106	85	115			
Zinc	0.50	0.010	0.5000	0	101	85	115			

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C38875**	RunNo: **38875**
Prep Date:	Analysis Date: **11/21/2016**	SeqNo: **1215069** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0017	0.0020	0.002000	0	83.5	50	150			J
Cadmium	0.0018	0.0020	0.002000	0	88.5	50	150			J
Chromium	0.0062	0.0060	0.006000	0	102	50	150			
Copper	0.0048	0.0060	0.006000	0	80.7	50	150			J
Iron	0.020	0.020	0.02000	0	101	50	150			
Manganese	0.0022	0.0020	0.002000	0	112	50	150			
Silver	0.0052	0.0050	0.005000	0	103	50	150			
Zinc	0.0057	0.010	0.005000	0	115	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611145**

08-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**MB-B**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Dissolved Metals**
Client ID:	**PBW**	Batch ID:	**B38919**	RunNo:	**38919**
Prep Date:		Analysis Date:	**11/22/2016**	SeqNo:	**1216748** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Iron	ND	0.020								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID	**LLLCS-B**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Dissolved Metals**
Client ID:	**BatchQC**	Batch ID:	**B38919**	RunNo:	**38919**
Prep Date:		Analysis Date:	**11/22/2016**	SeqNo:	**1216749** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	99.5	50	150			J
Calcium	0.54	1.0	0.5000	0	107	50	150			J
Iron	0.019	0.020	0.02000	0	96.6	50	150			J
Magnesium	0.54	1.0	0.5000	0	109	50	150			J
Potassium	0.55	1.0	0.5000	0	111	50	150			J
Sodium	0.50	1.0	0.5000	0	100	50	150			J

Sample ID	**LCS-B**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Dissolved Metals**
Client ID:	**LCSW**	Batch ID:	**B38919**	RunNo:	**38919**
Prep Date:		Analysis Date:	**11/22/2016**	SeqNo:	**1216750** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.3	85	115			
Calcium	51	1.0	50.00	0	102	85	115			
Iron	0.48	0.020	0.5000	0	96.9	85	115			
Magnesium	51	1.0	50.00	0	102	85	115			
Potassium	50	1.0	50.00	0	99.1	85	115			
Sodium	50	1.0	50.00	0	99.9	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611145**

08-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **MB-28729**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **28729**	RunNo: **38846**
Prep Date: **11/16/2016**	Analysis Date: **11/19/2016**	SeqNo: **1214004** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-28729**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **28729**	RunNo: **38846**
Prep Date: **11/16/2016**	Analysis Date: **11/19/2016**	SeqNo: **1214005** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.49	0.020	0.5000	0	98.2	85	115			
Manganese	0.49	0.0020	0.5000	0	98.6	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.49	0.010	0.5000	0	98.0	85	115			

Sample ID **LLLCS-28729**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **28729**	RunNo: **38846**
Prep Date: **11/16/2016**	Analysis Date: **11/19/2016**	SeqNo: **1214006** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0023	0.0020	0.002000	0	116	50	150			
Cadmium	0.0018	0.0020	0.002000	0	88.5	50	150			J
Chromium	0.0056	0.0060	0.006000	0	93.3	50	150			J
Copper	0.0058	0.0060	0.006000	0	96.3	50	150			J
Iron	0.021	0.020	0.02000	0	103	50	150			
Manganese	0.0022	0.0020	0.002000	0	109	50	150			
Silver	0.0053	0.0050	0.005000	0	106	50	150			
Zinc	0.0059	0.010	0.005000	0	118	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611145**

08-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**1611145-001FMS**	SampType: **MS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-33**	Batch ID: **28729**			RunNo: **38846**					
Prep Date:	**11/16/2016**	Analysis Date: **11/19/2016**			SeqNo: **1214008**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.60	0.0020	0.5000	0.1062	98.4	70	130			
Cadmium	0.49	0.0020	0.5000	0	97.1	70	130			
Chromium	0.48	0.0060	0.5000	0	96.1	70	130			
Copper	0.51	0.0060	0.5000	0	101	70	130			
Manganese	0.73	0.0020	0.5000	0.2500	96.3	70	130			
Zinc	0.47	0.010	0.5000	0.005960	92.9	70	130			

Sample ID	**1611145-001FMSD**	SampType: **MSD**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-33**	Batch ID: **28729**			RunNo: **38846**					
Prep Date:	**11/16/2016**	Analysis Date: **11/19/2016**			SeqNo: **1214009**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.59	0.0020	0.5000	0.1062	96.8	70	130	1.35	20	
Cadmium	0.48	0.0020	0.5000	0	96.9	70	130	0.217	20	
Chromium	0.48	0.0060	0.5000	0	96.3	70	130	0.129	20	
Copper	0.51	0.0060	0.5000	0	102	70	130	0.248	20	
Manganese	0.73	0.0020	0.5000	0.2500	95.2	70	130	0.759	20	
Zinc	0.47	0.010	0.5000	0.005960	92.8	70	130	0.0659	20	

Sample ID	**1611145-001FMS**	SampType: **MS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-33**	Batch ID: **28729**			RunNo: **38985**					
Prep Date:	**11/16/2016**	Analysis Date: **11/28/2016**			SeqNo: **1219083**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.018	0.0050	0.1000	0	17.9	70	130			S

Sample ID	**1611145-001FMSD**	SampType: **MSD**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-33**	Batch ID: **28729**			RunNo: **38985**					
Prep Date:	**11/16/2016**	Analysis Date: **11/28/2016**			SeqNo: **1219087**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.019	0.0050	0.1000	0	18.7	70	130	4.36	20	S

Sample ID	**1611145-001FPS**	SampType: **PS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-33**	Batch ID: **28729**			RunNo: **38985**					
Prep Date:		Analysis Date: **11/28/2016**			SeqNo: **1219088**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.098	0.0050	0.1000	0	98.1	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611145**

08-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**1611145-001EMSLL**	SampType:	**MS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**MKTF-33**	Batch ID:	**A38851**		RunNo:	**38851**				
Prep Date:		Analysis Date:	**11/18/2016**		SeqNo:	**1214171**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	99.4	70	130			
Selenium	0.026	0.0010	0.02500	0.002805	92.3	70	130			

Sample ID	**LCS**	SampType:	**LCS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**LCSW**	Batch ID:	**A38851**		RunNo:	**38851**				
Prep Date:		Analysis Date:	**11/18/2016**		SeqNo:	**1214205**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	94.2	85	115			
Lead	0.012	0.00050	0.01250	0	93.1	85	115			
Selenium	0.024	0.0010	0.02500	0	95.6	85	115			
Uranium	0.012	0.00050	0.01250	0	93.6	85	115			

Sample ID	**LLLCS**	SampType:	**LCSLL**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**BatchQC**	Batch ID:	**A38851**		RunNo:	**38851**				
Prep Date:		Analysis Date:	**11/18/2016**		SeqNo:	**1214207**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00097	0.0010	0.001000	0	97.5	50	150			J
Lead	0.00047	0.00050	0.0005001	0	94.2	50	150			J
Selenium	0.00099	0.0010	0.001000	0	99.4	50	150			J
Uranium	0.00047	0.00050	0.0005001	0	95.0	50	150			J

Sample ID	**MB**	SampType:	**MBLK**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**PBW**	Batch ID:	**A38851**		RunNo:	**38851**				
Prep Date:		Analysis Date:	**11/18/2016**		SeqNo:	**1214209**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**1611145-001EMSLL**	SampType:	**MS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**MKTF-33**	Batch ID:	**B38934**		RunNo:	**38934**				
Prep Date:		Analysis Date:	**11/22/2016**		SeqNo:	**1217158**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.001121	102	70	130			
Uranium	0.10	0.0025	0.06250	0.03777	107	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611145**

08-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B38934**	RunNo: **38934**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1217204** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.7	85	115			
Selenium	0.024	0.0010	0.02500	0	97.3	85	115			
Uranium	0.012	0.00050	0.01250	0	97.2	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B38934**	RunNo: **38934**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1217207** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00092	0.0010	0.001000	0	91.5	50	150			J
Selenium	0.00087	0.0010	0.001000	0	87.4	50	150			J
Uranium	0.00049	0.00050	0.0005001	0	97.2	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B38934**	RunNo: **38934**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1217210** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611145**

08-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**MB-28729**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**28729**	RunNo:	**38800**					
Prep Date:	**11/16/2016**	Analysis Date:	**11/17/2016**	SeqNo:	**1212462**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-28729**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**28729**	RunNo:	**38800**					
Prep Date:	**11/16/2016**	Analysis Date:	**11/17/2016**	SeqNo:	**1212463**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.0	85	115			
Lead	0.012	0.00050	0.01250	0	95.0	85	115			
Selenium	0.023	0.0010	0.02500	0	93.8	85	115			
Uranium	0.011	0.00050	0.01250	0	90.8	85	115			

Sample ID	**MSLLLCS-28729**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**28729**	RunNo:	**38800**					
Prep Date:	**11/16/2016**	Analysis Date:	**11/17/2016**	SeqNo:	**1212464**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	107	50	150			
Lead	0.00046	0.00050	0.0005001	0	92.9	50	150			J
Selenium	0.00097	0.0010	0.001000	0	97.1	50	150			J
Uranium	0.00047	0.00050	0.0005001	0	93.0	50	150			J

Sample ID	**MB-28876**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**28876**	RunNo:	**39036**					
Prep Date:	**11/28/2016**	Analysis Date:	**11/29/2016**	SeqNo:	**1220999**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-28876**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**28876**	RunNo:	**39036**					
Prep Date:	**11/28/2016**	Analysis Date:	**11/29/2016**	SeqNo:	**1221000**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611145**

08-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**MSLCS-28876**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**28876**	RunNo:	**39036**					
Prep Date:	**11/28/2016**	Analysis Date:	**11/29/2016**	SeqNo:	**1221000**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	102	85	115			
Lead	0.013	0.00050	0.01250	0	102	85	115			
Selenium	0.025	0.0010	0.02500	0	102	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID	**MSLLLCS-28876**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**28876**	RunNo:	**39036**					
Prep Date:	**11/28/2016**	Analysis Date:	**11/29/2016**	SeqNo:	**1221001**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0011	0.0010	0.001000	0	106	50	150			
Lead	0.00051	0.00050	0.0005001	0	102	50	150			
Selenium	0.00095	0.0010	0.001000	0	95.0	50	150			J
Uranium	0.00051	0.00050	0.0005001	0	101	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611145**

08-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**MB-28670**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**28670**	RunNo:	**38727**					
Prep Date:	**11/15/2016**	Analysis Date:	**11/15/2016**	SeqNo:	**1209725**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-28670**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**28670**	RunNo:	**38727**					
Prep Date:	**11/15/2016**	Analysis Date:	**11/15/2016**	SeqNo:	**1209726**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0052	0.00020	0.005000	0	104	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611145**

08-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R38449**	RunNo: **38449**
Prep Date:	Analysis Date: **11/3/2016**	SeqNo: **1200896** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R38449**	RunNo: **38449**
Prep Date:	Analysis Date: **11/3/2016**	SeqNo: **1200897** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	106	90	110			
Chloride	4.7	0.50	5.000	0	94.6	90	110			
Nitrogen, Nitrite (As N)	0.96	0.10	1.000	0	95.8	90	110			
Bromide	2.4	0.10	2.500	0	97.6	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	101	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.5	90	110			
Sulfate	9.7	0.50	10.00	0	97.2	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.3	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R38595**	RunNo: **38595**
Prep Date:	Analysis Date: **11/9/2016**	SeqNo: **1205548** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R38595**	RunNo: **38595**
Prep Date:	Analysis Date: **11/9/2016**	SeqNo: **1205550** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.4	90	110			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1611145**
08-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th QTR (MKTF)

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R38712**	RunNo: **38712**
Prep Date:	Analysis Date: **11/15/2016**	SeqNo: **1209243** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R38712**	RunNo: **38712**
Prep Date:	Analysis Date: **11/15/2016**	SeqNo: **1209244** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.4	0.20	3.500	0	98.1	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611145**

08-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **1611145-001BMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **MKTF-33**	Batch ID: **28516**	RunNo: **38494**
Prep Date: **11/7/2016**	Analysis Date: **11/8/2016**	SeqNo: **1203977** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.8	1.0	5.000	0	95.0	79.6	148			
Surr: DNOP	0.53		0.5000		107	77.1	144			

Sample ID **1611145-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **MKTF-33**	Batch ID: **28516**	RunNo: **38494**
Prep Date: **11/7/2016**	Analysis Date: **11/8/2016**	SeqNo: **1203978** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.9	1.0	5.000	0	97.6	79.6	148	2.65	20	
Surr: DNOP	0.53		0.5000		107	77.1	144	0	0	

Sample ID **LCS-28516**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **28516**	RunNo: **38494**
Prep Date: **11/7/2016**	Analysis Date: **11/8/2016**	SeqNo: **1203999** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.5	1.0	5.000	0	90.8	63.2	155			
Surr: DNOP	0.51		0.5000		102	77.1	144			

Sample ID **MB-28516**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **28516**	RunNo: **38494**
Prep Date: **11/7/2016**	Analysis Date: **11/8/2016**	SeqNo: **1204000** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		102	77.1	144			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611145**

08-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G38456**	RunNo: **38456**
Prep Date:	Analysis Date: **11/4/2016**	SeqNo: **1201414** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		92.0	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G38456**	RunNo: **38456**
Prep Date:	Analysis Date: **11/4/2016**	SeqNo: **1201415** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	96.4	80	120			
Surr: BFB	19		20.00		94.1	66.4	120			

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611145**

08-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R38431**	RunNo: **38431**
Prep Date:	Analysis Date: **11/3/2016**	SeqNo: **1200154** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.2	70	130			
Toluene	18	1.0	20.00	0	90.4	70	130			
Chlorobenzene	17	1.0	20.00	0	85.2	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	94.1	70	130			
Trichloroethene (TCE)	16	1.0	20.00	0	82.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.2	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		93.8	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	10		10.00		99.7	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38431**	RunNo: **38431**
Prep Date:	Analysis Date: **11/3/2016**	SeqNo: **1200155** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611145**

08-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38431**	RunNo: **38431**
Prep Date:	Analysis Date: **11/3/2016**	SeqNo: **1200155** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611145**

08-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38431**	RunNo: **38431**
Prep Date:	Analysis Date: **11/3/2016**	SeqNo: **1200155** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.8	70	130			
Surr: 4-Bromofluorobenzene	8.9		10.00		88.8	70	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611145**

08-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **lcs-28471**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **28471**	RunNo: **38544**
Prep Date: **11/4/2016**	Analysis Date: **11/8/2016**	SeqNo: **1204034** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	62	10	100.0	0	61.6	42.9	100			
4-Chloro-3-methylphenol	140	10	200.0	0	71.3	36.2	110			
2-Chlorophenol	130	10	200.0	0	66.3	33.4	97.8			
1,4-Dichlorobenzene	51	10	100.0	0	51.1	32.8	79.3			
2,4-Dinitrotoluene	61	10	100.0	0	61.2	34.9	107			
N-Nitrosodi-n-propylamine	66	10	100.0	0	66.0	30.7	111			
4-Nitrophenol	93	10	200.0	0	46.5	15	91.9			
Pentachlorophenol	110	20	200.0	0	52.6	33.3	93.5			
Phenol	99	10	200.0	0	49.3	20.9	86.4			
Pyrene	63	10	100.0	0	63.1	45.6	111			
1,2,4-Trichlorobenzene	59	10	100.0	0	58.8	38.7	88.2			
Surr: 2-Fluorophenol	110		200.0		54.8	15	98.1			
Surr: Phenol-d5	110		200.0		53.6	15	80.7			
Surr: 2,4,6-Tribromophenol	130		200.0		66.2	15	112			
Surr: Nitrobenzene-d5	66		100.0		66.1	27.2	90.7			
Surr: 2-Fluorobiphenyl	62		100.0		62.0	23.3	85.6			
Surr: 4-Terphenyl-d14	56		100.0		56.0	27.6	107			

Sample ID **mb-28471**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28471**	RunNo: **38544**
Prep Date: **11/4/2016**	Analysis Date: **11/8/2016**	SeqNo: **1204035** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	9.0	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	6.5	10								J

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611145**

08-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **mb-28471**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28471**	RunNo: **38544**
Prep Date: **11/4/2016**	Analysis Date: **11/8/2016**	SeqNo: **1204035** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	2.7	10								J
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	7.4	10								J
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								

Qualifiers:

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QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1611145**
08-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th QTR (MKTF)

Sample ID **mb-28471**	SampType: **MBLK**		TestCode: **EPA Method 8270C: Semivolatiles**		
Client ID: **PBW**	Batch ID: **28471**		RunNo: **38544**		
Prep Date: **11/4/2016**	Analysis Date: **11/8/2016**		SeqNo: **1204035**	Units: **µg/L**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	120		200.0		60.3	15	98.1			
Surr: Phenol-d5	110		200.0		54.4	15	80.7			
Surr: 2,4,6-Tribromophenol	140		200.0		71.4	15	112			
Surr: Nitrobenzene-d5	73		100.0		72.9	27.2	90.7			
Surr: 2-Fluorobiphenyl	66		100.0		65.7	23.3	85.6			
Surr: 4-Terphenyl-d14	58		100.0		58.2	27.6	107			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1611145 RcptNo: 1

Received by/date: 11/02/2016

Logged By: Ashley Gallegos 11/2/2016 4:28:00 PM

Completed By: Ashley Gallegos 11/2/2016 6:33:19 PM

Reviewed By: 11/03/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes	No	Not Present ✓
2. Is Chain of Custody complete?	Yes ✓	No	Not Present
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ✓	No	NA
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ✓	No	NA
6. Sample(s) in proper container(s)?	Yes ✓	No	
7. Sufficient sample volume for indicated test(s)?	Yes ✓	No	
8. Are samples (except VOA and ONG) properly preserved?	Yes ✓	No	
9. Was preservative added to bottles?	Yes	No ✓	NA
10. VOA vials have zero headspace?	Yes ✓	No	No VOA Vials
11. Were any sample containers received broken?	Yes	No ✓	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✓	No	# of preserved bottles checked for pH: 15 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ✓	No	Adjusted? NO
14. Is it clear what analyses were requested?	Yes ✓	No	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✓	No	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes No NA ✓

Person Notified: ____ Date: ____

By Whom: ____ Via: eMail Phone Fax In Person

Regarding: ____

Client Instructions: ____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

nt: WESTERN REFINING SW, INC.
GALLUP REFINERY

ling Address: 92 GIANT CROSSING RD
GALLUP NM 87301

one #: 505-722-0231

ail or Fax#: CHERYL.JOHNSON@WNR.COM

QC Package:
Standard ☒ Level 4 (Full Validation)

Accreditation
NELAP ☐ Other

EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: 2016 4TH QTR (MKTF)

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0°C

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
10/16	1305	WATER	MKTF-33	40 ML VOA-5	HCL	1611145-001
				1 L AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				500 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	
	1355		MKTF-22	40 ML VOA-5	HCL	-002
				1 L AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				500 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)		Air Bubbles (Y or N)
		✓							✓	✓					
		✓							✓	✓					
											✓	✓			
											✓	✓			
											✓				
												✓			
		✓							✓	✓					
		✓										✓			
											✓	✓			

Remarks:

Date	Time	Relinquished by:	Received by:	Date	Time
11/2/16	0652			11/02/16	1427
11/02/16	1625			11/02/16	1628

...ll to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client:	WESTERN REFINING SW, INC. GALLUP REFINERY
Mailing Address:	92 GIANT CROSSING RD GALLUP, NM 87301
Phone #:	505-722-0231
email or Fax#:	CHERYL.JOHNSON@WNR.COM
QA/QC Package:	Standard ☒ Level 4 (Full Validation)
Accreditation	NELAP ☐ Other
EDD (Type)	EXCEL

Turn-Around Time:	☒ Standard ☐ Rush
Project Name:	2016 4TH QTR (MKTF)
Project #:	
Project Manager:	CHERYL JOHNSON
Sampler:	TRACY PAYNE
On Ice:	☒ Yes ☐ No
Sample Temperature:	1.0°C

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611145
11/2/16	1355	WATER	MKTF-22	125 ML PLASTIC-1	H_2SO_4	-002
				500 ML PLASTIC-1	NEAT	
	1515		MKTF-38	40 ML VOA-5	HCL	-003
				1 L AMBER	NEAT	
				250 ML AMBER	NEAT	
				500 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	
	1625		MKTF-39	40 ML VOA-5	HCL	-004
				1 L AMBER	NEAT	
				250 ML AMBER	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)		Air Bubbles (Y or N)
											✓				
												✓			
		✓							✓						
										✓					
		✓													
												✓			
											✓	✓			
											✓				
												✓			
		✓							✓						
										✓					
		✓													

Date: 11/2/16	Time: 0652	Relinquished by:	Received by:	Date Time: 11/02/16 1427
Date: 11/2/16	Time: 1625	Relinquished by:	Received by:	Date Time: 11/02/16 1628

Remarks:

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Chain-of-Custody Record

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Client:	WESTERN REFINING SW, INC. GALLUP REFINERY
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Email or Fax#:	CHERYL.JOHNSON@WNR.COM
QC Package:	Standard ☒ Level 4 (Full Validation)
Accreditation	NELAP ☐ Other
EDD (Type)	EXCEL

Turn-Around Time:	☒ Standard ☐ Rush
Project Name:	2016 4thQTR (MKTE)
Project #:	
Project Manager:	CHERYL JOHNSON
Sampler:	TRACY PAYNE
On Ice:	☑ Yes ☐ No
Sample Temperature:	1.0°C

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611145
11/1/16	1625	WATER	MKTF-39	500 ML PLASTIC-1	HNO_3	-004
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	
	1325		FB110116	40 ML VOA-5	HCL	-005
				1 L AMBER	NEAT	
				250 ML AMBER	NEAT	
				500 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	
				125ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	
↓	—	↓	TRIP BLANK	40 ML VOA-4	HCL	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS (TOTAL & DISSOLVED)		Air Bubbles (Y or N)
												✓		
											✓	✓		
											✓			
												✓		
		✓							✓					
										✓				
		✓												
												✓		
											✓	✓		
											✓			
												✓		
									✓					

Date:	Time:	Relinquished by:	Received by:	Date Time: 11/02/16 1427
Date:	Time:	Relinquished by:	Received by:	Date Time: 11/02/16 1628

Remarks:

Submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 13, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 4th QTR (MKTF) OrderNo.: 1611209

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 13 sample(s) on 11/3/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-21
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016 8:05:00 AM
Lab ID: 1611209-001 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	3.4	0.69	1.0		mg/L	1	11/8/2016 10:03:50 PM	28516
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/8/2016 10:03:50 PM	28516
Surr: DNOP	106	0	77.1-144		%Rec	1	11/8/2016 10:03:50 PM	28516
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	34	2.5	5.0		mg/L	100	11/9/2016 1:28:56 PM	G38568
Surr: BFB	87.3	0	66.4-120		%Rec	100	11/9/2016 1:28:56 PM	G38568
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.91	0.25	0.50		mg/L	5	11/4/2016 3:44:17 PM	R38478
Chloride	110	1.0	10		mg/L	20	11/4/2016 3:56:42 PM	R38478
Nitrogen, Nitrite (As N)	ND	0.26	0.50		mg/L	5	11/4/2016 3:44:17 PM	R38478
Bromide	2.3	0.22	0.50		mg/L	5	11/4/2016 3:44:17 PM	R38478
Nitrogen, Nitrate (As N)	ND	0.20	0.50		mg/L	5	11/4/2016 3:44:17 PM	R38478
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5		mg/L	5	11/4/2016 3:44:17 PM	R38478
Sulfate	3.9	0.71	2.5		mg/L	5	11/4/2016 3:44:17 PM	R38478
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	4.3	0.0066	0.010	*	mg/L	5	11/28/2016 2:29:58 PM	B38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 2:28:17 PM	B38985
Calcium	190	2.5	5.0		mg/L	5	11/28/2016 2:29:58 PM	B38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 2:28:17 PM	B38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 2:28:17 PM	B38985
Iron	30	1.0	1.0	*	mg/L	50	11/28/2016 7:53:58 PM	B38985
Magnesium	28	0.50	1.0		mg/L	1	11/28/2016 2:28:17 PM	B38985
Manganese	5.0	0.0016	0.010	*	mg/L	5	11/28/2016 2:29:58 PM	B38985
Potassium	21	0.50	1.0		mg/L	1	11/28/2016 2:28:17 PM	B38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 2:28:17 PM	B38985
Sodium	110	2.5	5.0		mg/L	5	11/28/2016 2:29:58 PM	B38985
Zinc	0.017	0.0028	0.010		mg/L	1	11/28/2016 2:28:17 PM	B38985
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	4.3	0.0079	0.020	*	mg/L	10	11/28/2016 9:29:33 AM	28751
Cadmium	ND	0.0015	0.0020		mg/L	1	11/19/2016 3:23:30 PM	28751
Chromium	ND	0.0027	0.0060		mg/L	1	11/19/2016 3:23:30 PM	28751
Copper	ND	0.0030	0.0060		mg/L	1	11/19/2016 3:23:30 PM	28751
Iron	33	1.0	1.0	*	mg/L	50	11/28/2016 9:31:16 AM	28751
Manganese	5.1	0.0027	0.020	*	mg/L	10	11/28/2016 9:29:33 AM	28751
Silver	ND	0.0015	0.0050		mg/L	1	11/19/2016 3:23:30 PM	28751
Zinc	0.057	0.0027	0.010		mg/L	1	11/19/2016 3:23:30 PM	28751
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-21
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016 8:05:00 AM
Lab ID: 1611209-001 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.019	0.00069	0.0050	*	mg/L	5	11/22/2016 2:00:19 PM	B38934
Lead	0.00098	0.00017	0.00050		mg/L	1	11/18/2016 6:40:56 PM	A38851
Selenium	0.012	0.011	0.050	J	mg/L	50	11/22/2016 2:09:32 PM	B38934
Uranium	0.0020	0.000051	0.00050		mg/L	1	11/18/2016 6:40:56 PM	A38851
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.021	0.0011	0.0050	*	mg/L	5	11/21/2016 4:40:08 PM	28751
Lead	0.0033	0.000081	0.00050		mg/L	1	11/18/2016 3:26:55 PM	28751
Selenium	0.0086	0.0037	0.020	J	mg/L	20	11/21/2016 4:43:08 PM	28751
Uranium	0.0022	0.00017	0.00050		mg/L	1	11/18/2016 3:26:55 PM	28751
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/18/2016 4:49:42 PM	28761
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	26	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Acenaphthylene	ND	24	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Aniline	ND	24	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Anthracene	ND	25	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Azobenzene	ND	27	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Benz(a)anthracene	ND	26	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Benzo(a)pyrene	ND	27	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Benzo(b)fluoranthene	ND	29	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Benzo(g,h,i)perylene	ND	26	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Benzo(k)fluoranthene	ND	30	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Benzoic acid	110	26	200	J	µg/L	1	11/9/2016 2:45:05 PM	28498
Benzyl alcohol	ND	30	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Bis(2-chloroethoxy)methane	ND	28	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Bis(2-chloroethyl)ether	ND	27	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Bis(2-chloroisopropyl)ether	ND	19	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Bis(2-ethylhexyl)phthalate	64	26	100	J	µg/L	1	11/9/2016 2:45:05 PM	28498
4-Bromophenyl phenyl ether	ND	26	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Butyl benzyl phthalate	27	25	100	J	µg/L	1	11/9/2016 2:45:05 PM	28498
Carbazole	ND	23	100		µg/L	1	11/9/2016 2:45:05 PM	28498
4-Chloro-3-methylphenol	ND	26	100		µg/L	1	11/9/2016 2:45:05 PM	28498
4-Chloroaniline	ND	27	100		µg/L	1	11/9/2016 2:45:05 PM	28498
2-Chloronaphthalene	ND	23	100		µg/L	1	11/9/2016 2:45:05 PM	28498
2-Chlorophenol	ND	22	100		µg/L	1	11/9/2016 2:45:05 PM	28498
4-Chlorophenyl phenyl ether	ND	26	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Chrysene	ND	28	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Di-n-butyl phthalate	ND	24	100		µg/L	1	11/9/2016 2:45:05 PM	28498

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Project: 2016 4th QTR (MKTF)
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Lab ID: 1611209-001 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	81	20	100	J	µg/L	1	11/9/2016 2:45:05 PM	28498
Dibenz(a,h)anthracene	ND	27	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Dibenzofuran	ND	25	100		µg/L	1	11/9/2016 2:45:05 PM	28498
1,2-Dichlorobenzene	ND	23	100		µg/L	1	11/9/2016 2:45:05 PM	28498
1,3-Dichlorobenzene	ND	23	100		µg/L	1	11/9/2016 2:45:05 PM	28498
1,4-Dichlorobenzene	ND	24	100		µg/L	1	11/9/2016 2:45:05 PM	28498
3,3´-Dichlorobenzidine	ND	24	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Diethyl phthalate	ND	27	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Dimethyl phthalate	ND	24	100		µg/L	1	11/9/2016 2:45:05 PM	28498
2,4-Dichlorophenol	ND	23	200		µg/L	1	11/9/2016 2:45:05 PM	28498
2,4-Dimethylphenol	30	30	100	J	µg/L	1	11/9/2016 2:45:05 PM	28498
4,6-Dinitro-2-methylphenol	ND	18	200		µg/L	1	11/9/2016 2:45:05 PM	28498
2,4-Dinitrophenol	ND	28	200		µg/L	1	11/9/2016 2:45:05 PM	28498
2,4-Dinitrotoluene	ND	31	100		µg/L	1	11/9/2016 2:45:05 PM	28498
2,6-Dinitrotoluene	ND	27	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Fluoranthene	ND	26	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Fluorene	ND	27	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Hexachlorobenzene	ND	26	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Hexachlorobutadiene	ND	22	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Hexachlorocyclopentadiene	ND	23	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Hexachloroethane	ND	24	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Indeno(1,2,3-cd)pyrene	ND	30	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Isophorone	ND	26	100		µg/L	1	11/9/2016 2:45:05 PM	28498
1-Methylnaphthalene	ND	29	100		µg/L	1	11/9/2016 2:45:05 PM	28498
2-Methylnaphthalene	ND	29	100		µg/L	1	11/9/2016 2:45:05 PM	28498
2-Methylphenol	ND	25	100		µg/L	1	11/9/2016 2:45:05 PM	28498
3+4-Methylphenol	30	23	100	J	µg/L	1	11/9/2016 2:45:05 PM	28498
N-Nitrosodi-n-propylamine	ND	24	100		µg/L	1	11/9/2016 2:45:05 PM	28498
N-Nitrosodimethylamine	ND	22	100		µg/L	1	11/9/2016 2:45:05 PM	28498
N-Nitrosodiphenylamine	ND	23	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Naphthalene	49	26	100	J	µg/L	1	11/9/2016 2:45:05 PM	28498
2-Nitroaniline	ND	28	100		µg/L	1	11/9/2016 2:45:05 PM	28498
3-Nitroaniline	ND	29	100		µg/L	1	11/9/2016 2:45:05 PM	28498
4-Nitroaniline	ND	26	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Nitrobenzene	ND	28	100		µg/L	1	11/9/2016 2:45:05 PM	28498
2-Nitrophenol	ND	24	100		µg/L	1	11/9/2016 2:45:05 PM	28498
4-Nitrophenol	ND	26	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Pentachlorophenol	ND	23	200		µg/L	1	11/9/2016 2:45:05 PM	28498
Phenanthrene	ND	26	100		µg/L	1	11/9/2016 2:45:05 PM	28498

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-21
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016 8:05:00 AM
Lab ID: 1611209-001 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	30	20	100	J	µg/L	1	11/9/2016 2:45:05 PM	28498
Pyrene	ND	31	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Pyridine	ND	22	100		µg/L	1	11/9/2016 2:45:05 PM	28498
1,2,4-Trichlorobenzene	ND	26	100		µg/L	1	11/9/2016 2:45:05 PM	28498
2,4,5-Trichlorophenol	ND	22	100		µg/L	1	11/9/2016 2:45:05 PM	28498
2,4,6-Trichlorophenol	ND	24	100		µg/L	1	11/9/2016 2:45:05 PM	28498
Surr: 2-Fluorophenol	19.4	0	15-98.1		%Rec	1	11/9/2016 2:45:05 PM	28498
Surr: Phenol-d5	15.1	0	15-80.7		%Rec	1	11/9/2016 2:45:05 PM	28498
Surr: 2,4,6-Tribromophenol	34.5	0	15-112		%Rec	1	11/9/2016 2:45:05 PM	28498
Surr: Nitrobenzene-d5	63.8	0	27.2-90.7		%Rec	1	11/9/2016 2:45:05 PM	28498
Surr: 2-Fluorobiphenyl	49.8	0	23.3-85.6		%Rec	1	11/9/2016 2:45:05 PM	28498
Surr: 4-Terphenyl-d14	42.4	0	27.6-107		%Rec	1	11/9/2016 2:45:05 PM	28498
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	7600	48	500		µg/L	500	11/9/2016 2:36:15 PM	R38566
Toluene	68	5.9	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
Ethylbenzene	400	5.6	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
Methyl tert-butyl ether (MTBE)	770	11	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
1,2,4-Trimethylbenzene	230	5.5	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
1,3,5-Trimethylbenzene	96	5.8	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
1,2-Dichloroethane (EDC)	ND	5.8	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
1,2-Dibromoethane (EDB)	ND	5.6	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
Naphthalene	47	4.6	100	J	µg/L	50	11/9/2016 3:05:12 PM	R38566
1-Methylnaphthalene	ND	10	200		µg/L	50	11/9/2016 3:05:12 PM	R38566
2-Methylnaphthalene	ND	7.9	200		µg/L	50	11/9/2016 3:05:12 PM	R38566
Acetone	ND	250	500		µg/L	50	11/9/2016 3:05:12 PM	R38566
Bromobenzene	ND	4.9	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
Bromodichloromethane	ND	7.0	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
Bromoform	ND	5.1	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
Bromomethane	ND	39	150		µg/L	50	11/9/2016 3:05:12 PM	R38566
2-Butanone	ND	37	500		µg/L	50	11/9/2016 3:05:12 PM	R38566
Carbon disulfide	ND	30	500		µg/L	50	11/9/2016 3:05:12 PM	R38566
Carbon Tetrachloride	ND	5.4	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
Chlorobenzene	ND	5.7	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
Chloroethane	ND	9.6	100		µg/L	50	11/9/2016 3:05:12 PM	R38566
Chloroform	ND	4.4	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
Chloromethane	ND	11	150		µg/L	50	11/9/2016 3:05:12 PM	R38566
2-Chlorotoluene	ND	20	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
4-Chlorotoluene	ND	6.4	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
cis-1,2-DCE	ND	6.2	50		µg/L	50	11/9/2016 3:05:12 PM	R38566

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-21
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016 8:05:00 AM
Lab ID: 1611209-001 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	5.3	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
1,2-Dibromo-3-chloropropane	ND	12	100		µg/L	50	11/9/2016 3:05:12 PM	R38566
Dibromochloromethane	ND	4.3	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
Dibromomethane	ND	6.0	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
1,2-Dichlorobenzene	ND	20	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
1,3-Dichlorobenzene	ND	7.2	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
1,4-Dichlorobenzene	ND	7.1	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
Dichlorodifluoromethane	ND	18	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
1,1-Dichloroethane	ND	5.4	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
1,1-Dichloroethene	ND	5.4	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
1,2-Dichloropropane	ND	5.5	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
1,3-Dichloropropane	ND	7.8	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
2,2-Dichloropropane	ND	8.3	100		µg/L	50	11/9/2016 3:05:12 PM	R38566
1,1-Dichloropropene	ND	6.7	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
Hexachlorobutadiene	ND	9.9	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
2-Hexanone	ND	42	500		µg/L	50	11/9/2016 3:05:12 PM	R38566
Isopropylbenzene	8.5	5.2	50	J	µg/L	50	11/9/2016 3:05:12 PM	R38566
4-Isopropyltoluene	ND	7.0	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
4-Methyl-2-pentanone	32	21	500	J	µg/L	50	11/9/2016 3:05:12 PM	R38566
Methylene Chloride	ND	9.4	150		µg/L	50	11/9/2016 3:05:12 PM	R38566
n-Butylbenzene	ND	8.0	150		µg/L	50	11/9/2016 3:05:12 PM	R38566
n-Propylbenzene	19	6.6	50	J	µg/L	50	11/9/2016 3:05:12 PM	R38566
sec-Butylbenzene	ND	6.2	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
Styrene	ND	5.5	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
tert-Butylbenzene	ND	5.8	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
1,1,1,2-Tetrachloroethane	ND	5.6	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
1,1,2,2-Tetrachloroethane	ND	6.4	100		µg/L	50	11/9/2016 3:05:12 PM	R38566
Tetrachloroethene (PCE)	ND	7.6	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
trans-1,2-DCE	ND	20	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
trans-1,3-Dichloropropene	ND	5.2	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
1,2,3-Trichlorobenzene	ND	5.6	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
1,2,4-Trichlorobenzene	ND	6.6	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
1,1,1-Trichloroethane	ND	4.6	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
1,1,2-Trichloroethane	ND	6.4	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
Trichloroethene (TCE)	ND	8.8	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
Trichlorofluoromethane	ND	10	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
1,2,3-Trichloropropane	ND	10	100		µg/L	50	11/9/2016 3:05:12 PM	R38566
Vinyl chloride	ND	9.8	50		µg/L	50	11/9/2016 3:05:12 PM	R38566
Xylenes, Total	2300	18	75		µg/L	50	11/9/2016 3:05:12 PM	R38566

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-21
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016 8:05:00 AM
Lab ID: 1611209-001 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	97.6	0	70-130		%Rec	50	11/9/2016 3:05:12 PM	R38566
Surr: 4-Bromofluorobenzene	91.0	0	70-130		%Rec	50	11/9/2016 3:05:12 PM	R38566
Surr: Dibromofluoromethane	103	0	70-130		%Rec	50	11/9/2016 3:05:12 PM	R38566
Surr: Toluene-d8	104	0	70-130		%Rec	50	11/9/2016 3:05:12 PM	R38566

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-20
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016 9:00:00 AM
Lab ID: 1611209-002 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	9.4	0.69	1.0		mg/L	1	11/8/2016 10:25:30 PM	28516
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/8/2016 10:25:30 PM	28516
Surr: DNOP	108	0	77.1-144		%Rec	1	11/8/2016 10:25:30 PM	28516
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	65	5.1	10		mg/L	200	11/9/2016 1:53:26 PM	G38568
Surr: BFB	86.7	0	66.4-120		%Rec	200	11/9/2016 1:53:26 PM	G38568
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	2.6	0.25	0.50		mg/L	5	11/4/2016 4:09:07 PM	R38478
Chloride	1500	5.1	50		mg/L	100	11/15/2016 5:47:18 PM	R38732
Nitrogen, Nitrite (As N)	ND	0.26	0.50		mg/L	5	11/4/2016 4:09:07 PM	R38478
Bromide	1.6	0.22	0.50		mg/L	5	11/4/2016 4:09:07 PM	R38478
Nitrogen, Nitrate (As N)	ND	0.20	0.50		mg/L	5	11/4/2016 4:09:07 PM	R38478
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5		mg/L	5	11/4/2016 4:09:07 PM	R38478
Sulfate	13	0.71	2.5		mg/L	5	11/4/2016 4:09:07 PM	R38478
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	8.6	0.013	0.020	*	mg/L	10	11/28/2016 8:01:16 PM	B38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 2:31:36 PM	B38985
Calcium	480	5.0	10		mg/L	10	11/28/2016 8:01:16 PM	B38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 2:31:36 PM	B38985
Copper	0.0073	0.0040	0.0060		mg/L	1	11/28/2016 2:31:36 PM	B38985
Iron	20	1.0	1.0	*	mg/L	50	11/28/2016 8:02:52 PM	B38985
Magnesium	92	0.50	1.0		mg/L	1	11/28/2016 2:31:36 PM	B38985
Manganese	8.0	0.0032	0.020	*	mg/L	10	11/28/2016 8:01:16 PM	B38985
Potassium	22	0.50	1.0		mg/L	1	11/28/2016 2:31:36 PM	B38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 2:31:36 PM	B38985
Sodium	540	5.0	10		mg/L	10	11/28/2016 8:01:16 PM	B38985
Zinc	0.014	0.0028	0.010		mg/L	1	11/28/2016 2:31:36 PM	B38985
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	9.3	0.0079	0.020	*	mg/L	10	11/28/2016 9:33:07 AM	28751
Cadmium	ND	0.0015	0.0020		mg/L	1	11/19/2016 3:25:10 PM	28751
Chromium	ND	0.0027	0.0060		mg/L	1	11/19/2016 3:25:10 PM	28751
Copper	0.019	0.0030	0.0060		mg/L	1	11/19/2016 3:25:10 PM	28751
Iron	22	1.0	1.0	*	mg/L	50	11/28/2016 9:34:59 AM	28751
Manganese	8.9	0.0027	0.020	*	mg/L	10	11/28/2016 9:33:07 AM	28751
Silver	ND	0.0015	0.0050		mg/L	1	11/19/2016 3:25:10 PM	28751
Zinc	0.024	0.0027	0.010		mg/L	1	11/19/2016 3:25:10 PM	28751
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-20
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016 9:00:00 AM
Lab ID: 1611209-002
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.026	0.00069	0.0050	*	mg/L	5	11/22/2016 2:12:35 PM	B38934
Lead	0.0053	0.00084	0.0025		mg/L	5	11/22/2016 2:12:35 PM	B38934
Selenium	0.011	0.0011	0.0050		mg/L	5	11/22/2016 2:12:35 PM	B38934
Uranium	0.0052	0.00026	0.0025		mg/L	5	11/22/2016 2:12:35 PM	B38934
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.029	0.0011	0.0050	*	mg/L	5	11/21/2016 4:46:09 PM	28751
Lead	0.0090	0.00041	0.0025		mg/L	5	11/21/2016 4:46:09 PM	28751
Selenium	0.013	0.0037	0.020	J	mg/L	20	11/21/2016 4:49:09 PM	28751
Uranium	0.0052	0.00087	0.0025		mg/L	5	11/21/2016 4:46:09 PM	28751
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/18/2016 4:51:31 PM	28761
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	13	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Acenaphthylene	ND	12	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Aniline	ND	12	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Anthracene	ND	12	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Azobenzene	ND	13	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Benz(a)anthracene	ND	13	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Benzo(a)pyrene	ND	14	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Benzo(b)fluoranthene	ND	14	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Benzo(g,h,i)perylene	ND	13	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Benzo(k)fluoranthene	ND	15	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Benzoic acid	61	13	100	JD	µg/L	1	11/15/2016 5:07:17 PM	28584
Benzyl alcohol	ND	15	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Bis(2-chloroethoxy)methane	ND	14	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Bis(2-chloroethyl)ether	ND	13	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Bis(2-chloroisopropyl)ether	ND	9.5	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Bis(2-ethylhexyl)phthalate	35	13	50	JD	µg/L	1	11/15/2016 5:07:17 PM	28584
4-Bromophenyl phenyl ether	ND	13	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Butyl benzyl phthalate	14	12	50	JD	µg/L	1	11/15/2016 5:07:17 PM	28584
Carbazole	ND	11	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
4-Chloro-3-methylphenol	ND	13	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
4-Chloroaniline	ND	14	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
2-Chloronaphthalene	ND	11	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
2-Chlorophenol	ND	11	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
4-Chlorophenyl phenyl ether	ND	13	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Chrysene	ND	14	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Di-n-butyl phthalate	ND	12	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-20
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016 9:00:00 AM
Lab ID: 1611209-002 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	36	9.9	50	JD	µg/L	1	11/15/2016 5:07:17 PM	28584
Dibenz(a,h)anthracene	ND	13	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Dibenzofuran	ND	12	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
1,2-Dichlorobenzene	ND	11	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
1,3-Dichlorobenzene	ND	11	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
1,4-Dichlorobenzene	ND	12	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
3,3´-Dichlorobenzidine	ND	12	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Diethyl phthalate	ND	14	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Dimethyl phthalate	ND	12	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
2,4-Dichlorophenol	ND	12	100	D	µg/L	1	11/15/2016 5:07:17 PM	28584
2,4-Dimethylphenol	430	15	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
4,6-Dinitro-2-methylphenol	ND	9.0	100	D	µg/L	1	11/15/2016 5:07:17 PM	28584
2,4-Dinitrophenol	ND	14	100	D	µg/L	1	11/15/2016 5:07:17 PM	28584
2,4-Dinitrotoluene	ND	16	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
2,6-Dinitrotoluene	ND	14	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Fluoranthene	ND	13	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Fluorene	ND	14	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Hexachlorobenzene	ND	13	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Hexachlorobutadiene	ND	11	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Hexachlorocyclopentadiene	ND	11	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Hexachloroethane	ND	12	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Indeno(1,2,3-cd)pyrene	ND	15	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Isophorone	ND	13	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
1-Methylnaphthalene	50	15	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
2-Methylnaphthalene	38	14	50	JD	µg/L	1	11/15/2016 5:07:17 PM	28584
2-Methylphenol	160	13	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
3+4-Methylphenol	89	11	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
N-Nitrosodi-n-propylamine	ND	12	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
N-Nitrosodimethylamine	ND	11	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
N-Nitrosodiphenylamine	ND	12	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Naphthalene	110	13	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
2-Nitroaniline	ND	14	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
3-Nitroaniline	ND	15	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
4-Nitroaniline	ND	13	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Nitrobenzene	ND	14	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
2-Nitrophenol	ND	12	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
4-Nitrophenol	ND	13	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Pentachlorophenol	ND	12	100	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Phenanthrene	ND	13	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-20
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016 9:00:00 AM
Lab ID: 1611209-002 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	130	9.9	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Pyrene	ND	15	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Pyridine	ND	11	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
1,2,4-Trichlorobenzene	ND	13	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
2,4,5-Trichlorophenol	ND	11	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
2,4,6-Trichlorophenol	ND	12	50	D	µg/L	1	11/15/2016 5:07:17 PM	28584
Surr: 2-Fluorophenol	11.4	0	15-98.1	SD	%Rec	1	11/15/2016 5:07:17 PM	28584
Surr: Phenol-d5	19.4	0	15-80.7	D	%Rec	1	11/15/2016 5:07:17 PM	28584
Surr: 2,4,6-Tribromophenol	52.8	0	15-112	D	%Rec	1	11/15/2016 5:07:17 PM	28584
Surr: Nitrobenzene-d5	69.2	0	27.2-90.7	D	%Rec	1	11/15/2016 5:07:17 PM	28584
Surr: 2-Fluorobiphenyl	52.6	0	23.3-85.6	D	%Rec	1	11/15/2016 5:07:17 PM	28584
Surr: 4-Terphenyl-d14	39.0	0	27.6-107	D	%Rec	1	11/15/2016 5:07:17 PM	28584
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	13000	96	1000		µg/L	1000	11/9/2016 3:33:50 PM	R38566
Toluene	400	12	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
Ethylbenzene	1100	11	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
Methyl tert-butyl ether (MTBE)	190	21	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
1,2,4-Trimethylbenzene	1200	11	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
1,3,5-Trimethylbenzene	350	12	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
1,2-Dichloroethane (EDC)	ND	12	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
1,2-Dibromoethane (EDB)	ND	11	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
Naphthalene	190	9.3	200	J	µg/L	100	11/9/2016 4:02:28 PM	R38566
1-Methylnaphthalene	73	20	400	J	µg/L	100	11/9/2016 4:02:28 PM	R38566
2-Methylnaphthalene	79	16	400	J	µg/L	100	11/9/2016 4:02:28 PM	R38566
Acetone	ND	490	1000		µg/L	100	11/9/2016 4:02:28 PM	R38566
Bromobenzene	ND	9.8	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
Bromodichloromethane	ND	14	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
Bromoform	ND	10	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
Bromomethane	ND	78	300		µg/L	100	11/9/2016 4:02:28 PM	R38566
2-Butanone	ND	74	1000		µg/L	100	11/9/2016 4:02:28 PM	R38566
Carbon disulfide	ND	60	1000		µg/L	100	11/9/2016 4:02:28 PM	R38566
Carbon Tetrachloride	ND	11	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
Chlorobenzene	ND	11	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
Chloroethane	ND	19	200		µg/L	100	11/9/2016 4:02:28 PM	R38566
Chloroform	ND	8.9	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
Chloromethane	ND	21	300		µg/L	100	11/9/2016 4:02:28 PM	R38566
2-Chlorotoluene	ND	40	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
4-Chlorotoluene	ND	13	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
cis-1,2-DCE	ND	12	100		µg/L	100	11/9/2016 4:02:28 PM	R38566

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-20
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016 9:00:00 AM
Lab ID: 1611209-002 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	11	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
1,2-Dibromo-3-chloropropane	ND	23	200		µg/L	100	11/9/2016 4:02:28 PM	R38566
Dibromochloromethane	ND	8.7	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
Dibromomethane	ND	12	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
1,2-Dichlorobenzene	ND	40	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
1,3-Dichlorobenzene	ND	14	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
1,4-Dichlorobenzene	ND	14	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
Dichlorodifluoromethane	ND	36	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
1,1-Dichloroethane	ND	11	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
1,1-Dichloroethene	ND	11	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
1,2-Dichloropropane	ND	11	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
1,3-Dichloropropane	ND	16	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
2,2-Dichloropropane	ND	17	200		µg/L	100	11/9/2016 4:02:28 PM	R38566
1,1-Dichloropropene	ND	13	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
Hexachlorobutadiene	ND	20	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
2-Hexanone	ND	84	1000		µg/L	100	11/9/2016 4:02:28 PM	R38566
Isopropylbenzene	35	10	100	J	µg/L	100	11/9/2016 4:02:28 PM	R38566
4-Isopropyltoluene	ND	14	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
4-Methyl-2-pentanone	46	43	1000	J	µg/L	100	11/9/2016 4:02:28 PM	R38566
Methylene Chloride	ND	19	300		µg/L	100	11/9/2016 4:02:28 PM	R38566
n-Butylbenzene	ND	16	300		µg/L	100	11/9/2016 4:02:28 PM	R38566
n-Propylbenzene	110	13	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
sec-Butylbenzene	ND	12	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
Styrene	ND	11	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
tert-Butylbenzene	ND	12	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
1,1,1,2-Tetrachloroethane	ND	11	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
1,1,2,2-Tetrachloroethane	ND	13	200		µg/L	100	11/9/2016 4:02:28 PM	R38566
Tetrachloroethene (PCE)	ND	15	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
trans-1,2-DCE	ND	40	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
trans-1,3-Dichloropropene	ND	10	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
1,2,3-Trichlorobenzene	ND	11	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
1,2,4-Trichlorobenzene	ND	13	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
1,1,1-Trichloroethane	ND	9.1	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
1,1,2-Trichloroethane	ND	13	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
Trichloroethene (TCE)	ND	18	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
Trichlorofluoromethane	ND	20	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
1,2,3-Trichloropropane	ND	20	200		µg/L	100	11/9/2016 4:02:28 PM	R38566
Vinyl chloride	ND	20	100		µg/L	100	11/9/2016 4:02:28 PM	R38566
Xylenes, Total	9200	37	150		µg/L	100	11/9/2016 4:02:28 PM	R38566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-20
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016 9:00:00 AM
Lab ID: 1611209-002 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	95.6	0	70-130		%Rec	100	11/9/2016 4:02:28 PM	R38566
Surr: 4-Bromofluorobenzene	85.2	0	70-130		%Rec	100	11/9/2016 4:02:28 PM	R38566
Surr: Dibromofluoromethane	104	0	70-130		%Rec	100	11/9/2016 4:02:28 PM	R38566
Surr: Toluene-d8	102	0	70-130		%Rec	100	11/9/2016 4:02:28 PM	R38566

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110316
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016 9:35:00 AM
Lab ID: 1611209-003 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/8/2016 10:46:57 PM	28516
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/8/2016 10:46:57 PM	28516
Surr: DNOP	105	0	77.1-144		%Rec	1	11/8/2016 10:46:57 PM	28516
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/9/2016 2:17:51 PM	G38568
Surr: BFB	88.7	0	66.4-120		%Rec	1	11/9/2016 2:17:51 PM	G38568
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	ND	0.050	0.10		mg/L	1	11/4/2016 4:33:57 PM	R38478
Chloride	ND	0.051	0.50		mg/L	1	11/4/2016 4:33:57 PM	R38478
Nitrogen, Nitrite (As N)	ND	0.052	0.10		mg/L	1	11/4/2016 4:33:57 PM	R38478
Bromide	ND	0.044	0.10		mg/L	1	11/4/2016 4:33:57 PM	R38478
Nitrogen, Nitrate (As N)	ND	0.041	0.10		mg/L	1	11/4/2016 4:33:57 PM	R38478
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50		mg/L	1	11/4/2016 4:33:57 PM	R38478
Sulfate	ND	0.14	0.50		mg/L	1	11/4/2016 4:33:57 PM	R38478
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	ND	0.0013	0.0020		mg/L	1	11/28/2016 2:35:05 PM	B38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 2:35:05 PM	B38985
Calcium	ND	0.50	1.0		mg/L	1	11/28/2016 2:35:05 PM	B38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 2:35:05 PM	B38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 2:35:05 PM	B38985
Iron	ND	0.020	0.020		mg/L	1	11/28/2016 2:35:05 PM	B38985
Magnesium	ND	0.50	1.0		mg/L	1	11/28/2016 2:35:05 PM	B38985
Manganese	ND	0.00032	0.0020		mg/L	1	11/28/2016 2:35:05 PM	B38985
Potassium	ND	0.50	1.0		mg/L	1	11/28/2016 2:35:05 PM	B38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 2:35:05 PM	B38985
Sodium	ND	0.50	1.0		mg/L	1	11/28/2016 2:35:05 PM	B38985
Zinc	ND	0.0028	0.010		mg/L	1	11/28/2016 2:35:05 PM	B38985
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	ND	0.00079	0.0020		mg/L	1	11/19/2016 3:26:51 PM	28751
Cadmium	ND	0.0015	0.0020		mg/L	1	11/19/2016 3:26:51 PM	28751
Chromium	ND	0.0027	0.0060		mg/L	1	11/19/2016 3:26:51 PM	28751
Copper	ND	0.0030	0.0060		mg/L	1	11/19/2016 3:26:51 PM	28751
Iron	ND	0.020	0.020		mg/L	1	11/19/2016 3:26:51 PM	28751
Manganese	ND	0.00027	0.0020		mg/L	1	11/19/2016 3:26:51 PM	28751
Silver	ND	0.0015	0.0050		mg/L	1	11/19/2016 3:26:51 PM	28751
Zinc	ND	0.0027	0.010		mg/L	1	11/19/2016 3:26:51 PM	28751
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110316
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016 9:35:00 AM
Lab ID: 1611209-003
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	ND	0.00014	0.0010		mg/L	1	11/18/2016 6:47:03 PM	A38851
Lead	ND	0.00017	0.00050		mg/L	1	11/18/2016 6:47:03 PM	A38851
Selenium	ND	0.00021	0.0010		mg/L	1	11/18/2016 6:47:03 PM	A38851
Uranium	ND	0.000051	0.00050		mg/L	1	11/18/2016 6:47:03 PM	A38851
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.00021	0.0010		mg/L	1	11/18/2016 3:32:56 PM	28751
Lead	ND	0.000081	0.00050		mg/L	1	11/18/2016 3:32:56 PM	28751
Selenium	ND	0.00019	0.0010		mg/L	1	11/18/2016 3:32:56 PM	28751
Uranium	ND	0.00017	0.00050		mg/L	1	11/18/2016 3:32:56 PM	28751
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/18/2016 4:53:20 PM	28761
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Acenaphthylene	ND	2.4	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Aniline	ND	2.4	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Anthracene	ND	2.5	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Azobenzene	ND	2.7	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Benzoic acid	9.2	2.6	20	J	µg/L	1	11/9/2016 3:40:31 PM	28498
Benzyl alcohol	ND	3.0	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Bis(2-ethylhexyl)phthalate	6.8	2.6	10	J	µg/L	1	11/9/2016 3:40:31 PM	28498
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Butyl benzyl phthalate	2.8	2.5	10	J	µg/L	1	11/9/2016 3:40:31 PM	28498
Carbazole	ND	2.3	10		µg/L	1	11/9/2016 3:40:31 PM	28498
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/9/2016 3:40:31 PM	28498
4-Chloroaniline	ND	2.7	10		µg/L	1	11/9/2016 3:40:31 PM	28498
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/9/2016 3:40:31 PM	28498
2-Chlorophenol	ND	2.2	10		µg/L	1	11/9/2016 3:40:31 PM	28498
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Chrysene	ND	2.8	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/9/2016 3:40:31 PM	28498

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Lab ID: 1611209-003 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	7.2	2.0	10	J	µg/L	1	11/9/2016 3:40:31 PM	28498
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Dibenzofuran	ND	2.5	10		µg/L	1	11/9/2016 3:40:31 PM	28498
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/9/2016 3:40:31 PM	28498
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/9/2016 3:40:31 PM	28498
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/9/2016 3:40:31 PM	28498
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Diethyl phthalate	ND	2.7	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/9/2016 3:40:31 PM	28498
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/9/2016 3:40:31 PM	28498
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/9/2016 3:40:31 PM	28498
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/9/2016 3:40:31 PM	28498
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/9/2016 3:40:31 PM	28498
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/9/2016 3:40:31 PM	28498
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Fluoranthene	ND	2.6	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Fluorene	ND	2.7	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Hexachloroethane	ND	2.4	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Isophorone	ND	2.6	10		µg/L	1	11/9/2016 3:40:31 PM	28498
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/9/2016 3:40:31 PM	28498
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/9/2016 3:40:31 PM	28498
2-Methylphenol	ND	2.5	10		µg/L	1	11/9/2016 3:40:31 PM	28498
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/9/2016 3:40:31 PM	28498
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/9/2016 3:40:31 PM	28498
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/9/2016 3:40:31 PM	28498
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Naphthalene	ND	2.6	10		µg/L	1	11/9/2016 3:40:31 PM	28498
2-Nitroaniline	ND	2.8	10		µg/L	1	11/9/2016 3:40:31 PM	28498
3-Nitroaniline	ND	2.9	10		µg/L	1	11/9/2016 3:40:31 PM	28498
4-Nitroaniline	ND	2.6	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Nitrobenzene	ND	2.8	10		µg/L	1	11/9/2016 3:40:31 PM	28498
2-Nitrophenol	ND	2.4	10		µg/L	1	11/9/2016 3:40:31 PM	28498
4-Nitrophenol	ND	2.6	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Pentachlorophenol	ND	2.3	20		µg/L	1	11/9/2016 3:40:31 PM	28498
Phenanthrene	ND	2.6	10		µg/L	1	11/9/2016 3:40:31 PM	28498

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Lab ID: 1611209-003
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	ND	2.0	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Pyrene	ND	3.1	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Pyridine	ND	2.2	10		µg/L	1	11/9/2016 3:40:31 PM	28498
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/9/2016 3:40:31 PM	28498
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/9/2016 3:40:31 PM	28498
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/9/2016 3:40:31 PM	28498
Surr: 2-Fluorophenol	25.1	0	15-98.1		%Rec	1	11/9/2016 3:40:31 PM	28498
Surr: Phenol-d5	22.4	0	15-80.7		%Rec	1	11/9/2016 3:40:31 PM	28498
Surr: 2,4,6-Tribromophenol	37.9	0	15-112		%Rec	1	11/9/2016 3:40:31 PM	28498
Surr: Nitrobenzene-d5	72.2	0	27.2-90.7		%Rec	1	11/9/2016 3:40:31 PM	28498
Surr: 2-Fluorobiphenyl	68.6	0	23.3-85.6		%Rec	1	11/9/2016 3:40:31 PM	28498
Surr: 4-Terphenyl-d14	54.6	0	27.6-107		%Rec	1	11/9/2016 3:40:31 PM	28498
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Toluene	0.14	0.12	1.0	J	µg/L	1	11/9/2016 1:38:25 PM	R38566
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Naphthalene	ND	0.093	2.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Acetone	ND	4.9	10		µg/L	1	11/9/2016 1:38:25 PM	R38566
Bromobenzene	ND	0.098	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Bromoform	ND	0.10	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Bromomethane	ND	0.78	3.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
2-Butanone	ND	0.74	10		µg/L	1	11/9/2016 1:38:25 PM	R38566
Carbon disulfide	ND	0.60	10		µg/L	1	11/9/2016 1:38:25 PM	R38566
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Chloroethane	ND	0.19	2.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Chloroform	ND	0.089	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Chloromethane	ND	0.21	3.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566

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Lab ID: 1611209-003 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Dibromomethane	ND	0.12	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
2-Hexanone	ND	0.84	10		µg/L	1	11/9/2016 1:38:25 PM	R38566
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
4-Methyl-2-pentanone	0.48	0.43	10	J	µg/L	1	11/9/2016 1:38:25 PM	R38566
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Styrene	ND	0.11	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/9/2016 1:38:25 PM	R38566
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/9/2016 1:38:25 PM	R38566

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	94.9	0	70-130		%Rec	1	11/9/2016 1:38:25 PM	R38566
Surr: 4-Bromofluorobenzene	93.6	0	70-130		%Rec	1	11/9/2016 1:38:25 PM	R38566
Surr: Dibromofluoromethane	110	0	70-130		%Rec	1	11/9/2016 1:38:25 PM	R38566
Surr: Toluene-d8	99.1	0	70-130		%Rec	1	11/9/2016 1:38:25 PM	R38566

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-16
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016 10:10:00 AM
Lab ID: 1611209-004 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	3.3	0.69	1.0		mg/L	1	11/8/2016 11:08:33 PM	28516
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/8/2016 11:08:33 PM	28516
Surr: DNOP	106	0	77.1-144		%Rec	1	11/8/2016 11:08:33 PM	28516
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	70	5.1	10		mg/L	200	11/9/2016 2:42:11 PM	G38568
Surr: BFB	87.2	0	66.4-120		%Rec	200	11/9/2016 2:42:11 PM	G38568
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	1.2	0.25	0.50		mg/L	5	11/4/2016 5:23:35 PM	R38478
Chloride	380	1.0	10		mg/L	20	11/4/2016 5:36:00 PM	R38478
Nitrogen, Nitrite (As N)	ND	0.26	0.50		mg/L	5	11/4/2016 5:23:35 PM	R38478
Bromide	2.3	0.22	0.50		mg/L	5	11/4/2016 5:23:35 PM	R38478
Nitrogen, Nitrate (As N)	ND	0.20	0.50		mg/L	5	11/4/2016 5:23:35 PM	R38478
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5		mg/L	5	11/4/2016 5:23:35 PM	R38478
Sulfate	ND	0.71	2.5		mg/L	5	11/4/2016 5:23:35 PM	R38478
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.69	0.0013	0.0020		mg/L	1	11/28/2016 2:45:56 PM	B38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 2:45:56 PM	B38985
Calcium	46	0.50	1.0		mg/L	1	11/28/2016 2:45:56 PM	B38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 2:45:56 PM	B38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 2:45:56 PM	B38985
Iron	2.2	0.10	0.10	*	mg/L	5	11/28/2016 2:47:41 PM	B38985
Magnesium	13	0.50	1.0		mg/L	1	11/28/2016 2:45:56 PM	B38985
Manganese	0.87	0.00032	0.0020	*	mg/L	1	11/28/2016 2:45:56 PM	B38985
Potassium	0.93	0.50	1.0	J	mg/L	1	11/28/2016 2:45:56 PM	B38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 2:45:56 PM	B38985
Sodium	630	5.0	10		mg/L	10	11/28/2016 8:04:43 PM	B38985
Zinc	0.0041	0.0028	0.010	J	mg/L	1	11/28/2016 2:45:56 PM	B38985
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.67	0.00079	0.0020		mg/L	1	11/19/2016 3:28:55 PM	28751
Cadmium	ND	0.0015	0.0020		mg/L	1	11/19/2016 3:28:55 PM	28751
Chromium	ND	0.0027	0.0060		mg/L	1	11/19/2016 3:28:55 PM	28751
Copper	0.0038	0.0030	0.0060	J	mg/L	1	11/19/2016 3:28:55 PM	28751
Iron	3.6	0.10	0.10	*	mg/L	5	11/28/2016 9:36:55 AM	28751
Manganese	0.86	0.00027	0.0020	*	mg/L	1	11/19/2016 3:28:55 PM	28751
Silver	ND	0.0015	0.0050		mg/L	1	11/19/2016 3:28:55 PM	28751
Zinc	0.020	0.0027	0.010		mg/L	1	11/19/2016 3:28:55 PM	28751
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-16
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016 10:10:00 AM
Lab ID: 1611209-004 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.015	0.00069	0.0050	*	mg/L	5	11/22/2016 2:18:42 PM	B38934
Lead	0.00042	0.00017	0.00050	J	mg/L	1	11/18/2016 6:50:06 PM	A38851
Selenium	0.013	0.0042	0.020	J	mg/L	20	11/22/2016 2:21:45 PM	B38934
Uranium	0.0053	0.000051	0.00050		mg/L	1	11/18/2016 6:50:06 PM	A38851
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.015	0.0011	0.0050	*	mg/L	5	11/21/2016 4:52:10 PM	28751
Lead	0.0034	0.000081	0.00050		mg/L	1	11/18/2016 3:42:01 PM	28751
Selenium	0.010	0.0037	0.020	J	mg/L	20	11/21/2016 4:55:10 PM	28751
Uranium	0.0077	0.00017	0.00050		mg/L	1	11/18/2016 3:42:01 PM	28751
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/18/2016 4:58:50 PM	28761
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Acenaphthylene	ND	2.4	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Aniline	ND	2.4	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Anthracene	ND	2.5	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Azobenzene	ND	2.7	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Benzoic acid	38	2.6	20		µg/L	1	11/9/2016 4:08:11 PM	28498
Benzyl alcohol	ND	3.0	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Bis(2-ethylhexyl)phthalate	6.9	2.6	10	J	µg/L	1	11/9/2016 4:08:11 PM	28498
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Butyl benzyl phthalate	2.7	2.5	10	J	µg/L	1	11/9/2016 4:08:11 PM	28498
Carbazole	3.5	2.3	10	J	µg/L	1	11/9/2016 4:08:11 PM	28498
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/9/2016 4:08:11 PM	28498
4-Chloroaniline	ND	2.7	10		µg/L	1	11/9/2016 4:08:11 PM	28498
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/9/2016 4:08:11 PM	28498
2-Chlorophenol	ND	2.2	10		µg/L	1	11/9/2016 4:08:11 PM	28498
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Chrysene	ND	2.8	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/9/2016 4:08:11 PM	28498

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-16
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016 10:10:00 AM
Lab ID: 1611209-004 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	7.4	2.0	10	J	µg/L	1	11/9/2016 4:08:11 PM	28498
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Dibenzofuran	ND	2.5	10		µg/L	1	11/9/2016 4:08:11 PM	28498
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/9/2016 4:08:11 PM	28498
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/9/2016 4:08:11 PM	28498
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/9/2016 4:08:11 PM	28498
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Diethyl phthalate	ND	2.7	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/9/2016 4:08:11 PM	28498
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/9/2016 4:08:11 PM	28498
2,4-Dimethylphenol	59	3.0	10		µg/L	1	11/9/2016 4:08:11 PM	28498
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/9/2016 4:08:11 PM	28498
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/9/2016 4:08:11 PM	28498
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/9/2016 4:08:11 PM	28498
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Fluoranthene	ND	2.6	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Fluorene	3.5	2.7	10	J	µg/L	1	11/9/2016 4:08:11 PM	28498
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Hexachloroethane	ND	2.4	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Isophorone	ND	2.6	10		µg/L	1	11/9/2016 4:08:11 PM	28498
1-Methylnaphthalene	40	2.9	10		µg/L	1	11/9/2016 4:08:11 PM	28498
2-Methylnaphthalene	37	2.9	10		µg/L	1	11/9/2016 4:08:11 PM	28498
2-Methylphenol	26	2.5	10		µg/L	1	11/9/2016 4:08:11 PM	28498
3+4-Methylphenol	3.0	2.3	10	J	µg/L	1	11/9/2016 4:08:11 PM	28498
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/9/2016 4:08:11 PM	28498
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/9/2016 4:08:11 PM	28498
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Naphthalene	130	2.6	10		µg/L	1	11/9/2016 4:08:11 PM	28498
2-Nitroaniline	ND	2.8	10		µg/L	1	11/9/2016 4:08:11 PM	28498
3-Nitroaniline	ND	2.9	10		µg/L	1	11/9/2016 4:08:11 PM	28498
4-Nitroaniline	ND	2.6	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Nitrobenzene	ND	2.8	10		µg/L	1	11/9/2016 4:08:11 PM	28498
2-Nitrophenol	ND	2.4	10		µg/L	1	11/9/2016 4:08:11 PM	28498
4-Nitrophenol	ND	2.6	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Pentachlorophenol	ND	2.3	20		µg/L	1	11/9/2016 4:08:11 PM	28498
Phenanthrene	ND	2.6	10		µg/L	1	11/9/2016 4:08:11 PM	28498

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-16
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016 10:10:00 AM
Lab ID: 1611209-004 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	180	2.0	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Pyrene	ND	3.1	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Pyridine	ND	2.2	10		µg/L	1	11/9/2016 4:08:11 PM	28498
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/9/2016 4:08:11 PM	28498
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/9/2016 4:08:11 PM	28498
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/9/2016 4:08:11 PM	28498
Surr: 2-Fluorophenol	22.0	0	15-98.1		%Rec	1	11/9/2016 4:08:11 PM	28498
Surr: Phenol-d5	20.3	0	15-80.7		%Rec	1	11/9/2016 4:08:11 PM	28498
Surr: 2,4,6-Tribromophenol	48.2	0	15-112		%Rec	1	11/9/2016 4:08:11 PM	28498
Surr: Nitrobenzene-d5	77.5	0	27.2-90.7		%Rec	1	11/9/2016 4:08:11 PM	28498
Surr: 2-Fluorobiphenyl	61.3	0	23.3-85.6		%Rec	1	11/9/2016 4:08:11 PM	28498
Surr: 4-Terphenyl-d14	49.5	0	27.6-107		%Rec	1	11/9/2016 4:08:11 PM	28498
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	19000	96	1000		µg/L	1000	11/9/2016 4:31:09 PM	R38566
Toluene	220	12	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
Ethylbenzene	880	11	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
Methyl tert-butyl ether (MTBE)	970	21	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
1,2,4-Trimethylbenzene	560	11	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
1,3,5-Trimethylbenzene	210	12	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
1,2-Dichloroethane (EDC)	ND	12	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
1,2-Dibromoethane (EDB)	ND	11	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
Naphthalene	170	9.3	200	J	µg/L	100	11/9/2016 4:59:59 PM	R38566
1-Methylnaphthalene	56	20	400	J	µg/L	100	11/9/2016 4:59:59 PM	R38566
2-Methylnaphthalene	57	16	400	J	µg/L	100	11/9/2016 4:59:59 PM	R38566
Acetone	ND	490	1000		µg/L	100	11/9/2016 4:59:59 PM	R38566
Bromobenzene	ND	9.8	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
Bromodichloromethane	ND	14	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
Bromoform	ND	10	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
Bromomethane	ND	78	300		µg/L	100	11/9/2016 4:59:59 PM	R38566
2-Butanone	ND	74	1000		µg/L	100	11/9/2016 4:59:59 PM	R38566
Carbon disulfide	ND	60	1000		µg/L	100	11/9/2016 4:59:59 PM	R38566
Carbon Tetrachloride	ND	11	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
Chlorobenzene	ND	11	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
Chloroethane	ND	19	200		µg/L	100	11/9/2016 4:59:59 PM	R38566
Chloroform	ND	8.9	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
Chloromethane	ND	21	300		µg/L	100	11/9/2016 4:59:59 PM	R38566
2-Chlorotoluene	ND	40	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
4-Chlorotoluene	ND	13	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
cis-1,2-DCE	ND	12	100		µg/L	100	11/9/2016 4:59:59 PM	R38566

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-16
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016 10:10:00 AM
Lab ID: 1611209-004 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	11	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
1,2-Dibromo-3-chloropropane	ND	23	200		µg/L	100	11/9/2016 4:59:59 PM	R38566
Dibromochloromethane	ND	8.7	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
Dibromomethane	ND	12	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
1,2-Dichlorobenzene	ND	40	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
1,3-Dichlorobenzene	ND	14	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
1,4-Dichlorobenzene	ND	14	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
Dichlorodifluoromethane	ND	36	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
1,1-Dichloroethane	ND	11	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
1,1-Dichloroethene	ND	11	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
1,2-Dichloropropane	ND	11	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
1,3-Dichloropropane	ND	16	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
2,2-Dichloropropane	ND	17	200		µg/L	100	11/9/2016 4:59:59 PM	R38566
1,1-Dichloropropene	ND	13	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
Hexachlorobutadiene	ND	20	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
2-Hexanone	ND	84	1000		µg/L	100	11/9/2016 4:59:59 PM	R38566
Isopropylbenzene	15	10	100	J	µg/L	100	11/9/2016 4:59:59 PM	R38566
4-Isopropyltoluene	ND	14	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
4-Methyl-2-pentanone	ND	43	1000		µg/L	100	11/9/2016 4:59:59 PM	R38566
Methylene Chloride	ND	19	300		µg/L	100	11/9/2016 4:59:59 PM	R38566
n-Butylbenzene	ND	16	300		µg/L	100	11/9/2016 4:59:59 PM	R38566
n-Propylbenzene	52	13	100	J	µg/L	100	11/9/2016 4:59:59 PM	R38566
sec-Butylbenzene	ND	12	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
Styrene	ND	11	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
tert-Butylbenzene	ND	12	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
1,1,1,2-Tetrachloroethane	ND	11	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
1,1,2,2-Tetrachloroethane	ND	13	200		µg/L	100	11/9/2016 4:59:59 PM	R38566
Tetrachloroethene (PCE)	ND	15	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
trans-1,2-DCE	ND	40	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
trans-1,3-Dichloropropene	ND	10	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
1,2,3-Trichlorobenzene	ND	11	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
1,2,4-Trichlorobenzene	ND	13	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
1,1,1-Trichloroethane	ND	9.1	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
1,1,2-Trichloroethane	ND	13	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
Trichloroethene (TCE)	ND	18	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
Trichlorofluoromethane	ND	20	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
1,2,3-Trichloropropane	ND	20	200		µg/L	100	11/9/2016 4:59:59 PM	R38566
Vinyl chloride	ND	20	100		µg/L	100	11/9/2016 4:59:59 PM	R38566
Xylenes, Total	3400	37	150		µg/L	100	11/9/2016 4:59:59 PM	R38566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-16
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016 10:10:00 AM
Lab ID: 1611209-004
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	99.0	0	70-130		%Rec	100	11/9/2016 4:59:59 PM	R38566
Surr: 4-Bromofluorobenzene	92.1	0	70-130		%Rec	100	11/9/2016 4:59:59 PM	R38566
Surr: Dibromofluoromethane	104	0	70-130		%Rec	100	11/9/2016 4:59:59 PM	R38566
Surr: Toluene-d8	98.8	0	70-130		%Rec	100	11/9/2016 4:59:59 PM	R38566

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP05
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016
Lab ID: 1611209-005
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	9.6	0.69	1.0		mg/L	1	11/8/2016 11:30:00 PM	28516
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/8/2016 11:30:00 PM	28516
Surr: DNOP	108	0	77.1-144		%Rec	1	11/8/2016 11:30:00 PM	28516
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	68	5.1	10		mg/L	200	11/9/2016 3:06:27 PM	G38568
Surr: BFB	88.9	0	66.4-120		%Rec	200	11/9/2016 3:06:27 PM	G38568
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	2.6	0.25	0.50		mg/L	5	11/4/2016 5:48:25 PM	R38478
Chloride	1600	10	100		mg/L	200	11/15/2016 5:59:43 PM	R38732
Nitrogen, Nitrite (As N)	ND	0.26	0.50		mg/L	5	11/4/2016 5:48:25 PM	R38478
Bromide	1.8	0.22	0.50		mg/L	5	11/4/2016 5:48:25 PM	R38478
Nitrogen, Nitrate (As N)	ND	0.20	0.50		mg/L	5	11/4/2016 5:48:25 PM	R38478
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5		mg/L	5	11/4/2016 5:48:25 PM	R38478
Sulfate	12	0.71	2.5		mg/L	5	11/4/2016 5:48:25 PM	R38478
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	9.6	0.013	0.020	*	mg/L	10	11/28/2016 8:06:32 PM	B38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 2:49:39 PM	B38985
Calcium	570	5.0	10		mg/L	10	11/28/2016 8:06:32 PM	B38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 2:49:39 PM	B38985
Copper	0.010	0.0040	0.0060		mg/L	1	11/28/2016 2:49:39 PM	B38985
Iron	25	1.0	1.0	*	mg/L	50	11/28/2016 8:08:16 PM	B38985
Magnesium	110	2.5	5.0		mg/L	5	11/28/2016 2:51:33 PM	B38985
Manganese	9.7	0.0032	0.020	*	mg/L	10	11/28/2016 8:06:32 PM	B38985
Potassium	23	0.50	1.0		mg/L	1	11/28/2016 2:49:39 PM	B38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 2:49:39 PM	B38985
Sodium	620	5.0	10		mg/L	10	11/28/2016 8:06:32 PM	B38985
Zinc	0.017	0.0028	0.010		mg/L	1	11/28/2016 2:49:39 PM	B38985
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	10	0.040	0.10	*	mg/L	50	11/28/2016 10:05:28 AM	28751
Cadmium	ND	0.0015	0.0020		mg/L	1	11/19/2016 3:30:46 PM	28751
Chromium	ND	0.0027	0.0060		mg/L	1	11/19/2016 3:30:46 PM	28751
Copper	0.021	0.0030	0.0060		mg/L	1	11/19/2016 3:30:46 PM	28751
Iron	23	1.0	1.0	*	mg/L	50	11/28/2016 10:05:28 AM	28751
Manganese	9.5	0.014	0.10	*	mg/L	50	11/28/2016 10:05:28 AM	28751
Silver	ND	0.0015	0.0050		mg/L	1	11/19/2016 3:30:46 PM	28751
Zinc	0.026	0.0027	0.010		mg/L	1	11/19/2016 3:30:46 PM	28751
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP05
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016
Lab ID: 1611209-005
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.027	0.00069	0.0050	*	mg/L	5	11/22/2016 2:24:50 PM	B38934
Lead	0.0068	0.00084	0.0025		mg/L	5	11/22/2016 2:24:50 PM	B38934
Selenium	0.012	0.0011	0.0050		mg/L	5	11/22/2016 2:24:50 PM	B38934
Uranium	0.0047	0.00026	0.0025		mg/L	5	11/22/2016 2:24:50 PM	B38934
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.028	0.0011	0.0050	*	mg/L	5	11/21/2016 4:58:10 PM	28751
Lead	0.010	0.000081	0.00050		mg/L	1	11/18/2016 3:45:01 PM	28751
Selenium	0.010	0.0037	0.020	J	mg/L	20	11/21/2016 5:01:11 PM	28751
Uranium	0.0065	0.00017	0.00050		mg/L	1	11/18/2016 3:45:01 PM	28751
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/18/2016 4:57:00 PM	28761
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	26	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Acenaphthylene	ND	24	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Aniline	ND	24	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Anthracene	ND	25	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Azobenzene	ND	27	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Benz(a)anthracene	ND	26	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Benzo(a)pyrene	ND	27	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Benzo(b)fluoranthene	ND	29	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Benzo(g,h,i)perylene	ND	26	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Benzo(k)fluoranthene	ND	30	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Benzoic acid	120	26	200	J	µg/L	1	11/9/2016 4:35:48 PM	28498
Benzyl alcohol	ND	30	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Bis(2-chloroethoxy)methane	ND	28	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Bis(2-chloroethyl)ether	ND	27	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Bis(2-chloroisopropyl)ether	ND	19	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Bis(2-ethylhexyl)phthalate	65	26	100	J	µg/L	1	11/9/2016 4:35:48 PM	28498
4-Bromophenyl phenyl ether	ND	26	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Butyl benzyl phthalate	26	25	100	J	µg/L	1	11/9/2016 4:35:48 PM	28498
Carbazole	ND	23	100		µg/L	1	11/9/2016 4:35:48 PM	28498
4-Chloro-3-methylphenol	ND	26	100		µg/L	1	11/9/2016 4:35:48 PM	28498
4-Chloroaniline	ND	27	100		µg/L	1	11/9/2016 4:35:48 PM	28498
2-Chloronaphthalene	ND	23	100		µg/L	1	11/9/2016 4:35:48 PM	28498
2-Chlorophenol	ND	22	100		µg/L	1	11/9/2016 4:35:48 PM	28498
4-Chlorophenyl phenyl ether	ND	26	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Chrysene	ND	28	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Di-n-butyl phthalate	ND	24	100		µg/L	1	11/9/2016 4:35:48 PM	28498

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP05
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016
Lab ID: 1611209-005
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	69	20	100	J	µg/L	1	11/9/2016 4:35:48 PM	28498
Dibenz(a,h)anthracene	ND	27	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Dibenzofuran	ND	25	100		µg/L	1	11/9/2016 4:35:48 PM	28498
1,2-Dichlorobenzene	ND	23	100		µg/L	1	11/9/2016 4:35:48 PM	28498
1,3-Dichlorobenzene	ND	23	100		µg/L	1	11/9/2016 4:35:48 PM	28498
1,4-Dichlorobenzene	ND	24	100		µg/L	1	11/9/2016 4:35:48 PM	28498
3,3´-Dichlorobenzidine	ND	24	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Diethyl phthalate	ND	27	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Dimethyl phthalate	ND	24	100		µg/L	1	11/9/2016 4:35:48 PM	28498
2,4-Dichlorophenol	ND	23	200		µg/L	1	11/9/2016 4:35:48 PM	28498
2,4-Dimethylphenol	540	30	100		µg/L	1	11/9/2016 4:35:48 PM	28498
4,6-Dinitro-2-methylphenol	ND	18	200		µg/L	1	11/9/2016 4:35:48 PM	28498
2,4-Dinitrophenol	ND	28	200		µg/L	1	11/9/2016 4:35:48 PM	28498
2,4-Dinitrotoluene	ND	31	100		µg/L	1	11/9/2016 4:35:48 PM	28498
2,6-Dinitrotoluene	ND	27	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Fluoranthene	ND	26	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Fluorene	ND	27	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Hexachlorobenzene	ND	26	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Hexachlorobutadiene	ND	22	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Hexachlorocyclopentadiene	ND	23	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Hexachloroethane	ND	24	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Indeno(1,2,3-cd)pyrene	ND	30	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Isophorone	ND	26	100		µg/L	1	11/9/2016 4:35:48 PM	28498
1-Methylnaphthalene	54	29	100	J	µg/L	1	11/9/2016 4:35:48 PM	28498
2-Methylnaphthalene	42	29	100	J	µg/L	1	11/9/2016 4:35:48 PM	28498
2-Methylphenol	190	25	100		µg/L	1	11/9/2016 4:35:48 PM	28498
3+4-Methylphenol	110	23	100		µg/L	1	11/9/2016 4:35:48 PM	28498
N-Nitrosodi-n-propylamine	ND	24	100		µg/L	1	11/9/2016 4:35:48 PM	28498
N-Nitrosodimethylamine	ND	22	100		µg/L	1	11/9/2016 4:35:48 PM	28498
N-Nitrosodiphenylamine	ND	23	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Naphthalene	130	26	100		µg/L	1	11/9/2016 4:35:48 PM	28498
2-Nitroaniline	ND	28	100		µg/L	1	11/9/2016 4:35:48 PM	28498
3-Nitroaniline	ND	29	100		µg/L	1	11/9/2016 4:35:48 PM	28498
4-Nitroaniline	ND	26	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Nitrobenzene	ND	28	100		µg/L	1	11/9/2016 4:35:48 PM	28498
2-Nitrophenol	ND	24	100		µg/L	1	11/9/2016 4:35:48 PM	28498
4-Nitrophenol	ND	26	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Pentachlorophenol	ND	23	200		µg/L	1	11/9/2016 4:35:48 PM	28498
Phenanthrene	ND	26	100		µg/L	1	11/9/2016 4:35:48 PM	28498

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP05
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016
Lab ID: 1611209-005 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	170	20	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Pyrene	ND	31	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Pyridine	ND	22	100		µg/L	1	11/9/2016 4:35:48 PM	28498
1,2,4-Trichlorobenzene	ND	26	100		µg/L	1	11/9/2016 4:35:48 PM	28498
2,4,5-Trichlorophenol	ND	22	100		µg/L	1	11/9/2016 4:35:48 PM	28498
2,4,6-Trichlorophenol	ND	24	100		µg/L	1	11/9/2016 4:35:48 PM	28498
Surr: 2-Fluorophenol	19.1	0	15-98.1		%Rec	1	11/9/2016 4:35:48 PM	28498
Surr: Phenol-d5	21.9	0	15-80.7		%Rec	1	11/9/2016 4:35:48 PM	28498
Surr: 2,4,6-Tribromophenol	35.4	0	15-112		%Rec	1	11/9/2016 4:35:48 PM	28498
Surr: Nitrobenzene-d5	73.5	0	27.2-90.7		%Rec	1	11/9/2016 4:35:48 PM	28498
Surr: 2-Fluorobiphenyl	47.9	0	23.3-85.6		%Rec	1	11/9/2016 4:35:48 PM	28498
Surr: 4-Terphenyl-d14	47.8	0	27.6-107		%Rec	1	11/9/2016 4:35:48 PM	28498
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	13000	96	1000		µg/L	1000	11/9/2016 5:28:39 PM	R38566
Toluene	400	12	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
Ethylbenzene	1100	11	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
Methyl tert-butyl ether (MTBE)	200	21	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
1,2,4-Trimethylbenzene	1200	11	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
1,3,5-Trimethylbenzene	350	12	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
1,2-Dichloroethane (EDC)	ND	12	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
1,2-Dibromoethane (EDB)	ND	11	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
Naphthalene	190	9.3	200	J	µg/L	100	11/9/2016 5:57:27 PM	R38566
1-Methylnaphthalene	69	20	400	J	µg/L	100	11/9/2016 5:57:27 PM	R38566
2-Methylnaphthalene	75	16	400	J	µg/L	100	11/9/2016 5:57:27 PM	R38566
Acetone	ND	490	1000		µg/L	100	11/9/2016 5:57:27 PM	R38566
Bromobenzene	ND	9.8	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
Bromodichloromethane	ND	14	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
Bromoform	ND	10	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
Bromomethane	ND	78	300		µg/L	100	11/9/2016 5:57:27 PM	R38566
2-Butanone	ND	74	1000		µg/L	100	11/9/2016 5:57:27 PM	R38566
Carbon disulfide	ND	60	1000		µg/L	100	11/9/2016 5:57:27 PM	R38566
Carbon Tetrachloride	ND	11	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
Chlorobenzene	ND	11	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
Chloroethane	ND	19	200		µg/L	100	11/9/2016 5:57:27 PM	R38566
Chloroform	ND	8.9	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
Chloromethane	ND	21	300		µg/L	100	11/9/2016 5:57:27 PM	R38566
2-Chlorotoluene	ND	40	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
4-Chlorotoluene	ND	13	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
cis-1,2-DCE	ND	12	100		µg/L	100	11/9/2016 5:57:27 PM	R38566

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP05
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016
Lab ID: 1611209-005
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	11	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
1,2-Dibromo-3-chloropropane	ND	23	200		µg/L	100	11/9/2016 5:57:27 PM	R38566
Dibromochloromethane	ND	8.7	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
Dibromomethane	ND	12	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
1,2-Dichlorobenzene	ND	40	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
1,3-Dichlorobenzene	ND	14	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
1,4-Dichlorobenzene	ND	14	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
Dichlorodifluoromethane	ND	36	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
1,1-Dichloroethane	ND	11	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
1,1-Dichloroethene	ND	11	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
1,2-Dichloropropane	ND	11	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
1,3-Dichloropropane	ND	16	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
2,2-Dichloropropane	ND	17	200		µg/L	100	11/9/2016 5:57:27 PM	R38566
1,1-Dichloropropene	ND	13	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
Hexachlorobutadiene	ND	20	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
2-Hexanone	ND	84	1000		µg/L	100	11/9/2016 5:57:27 PM	R38566
Isopropylbenzene	35	10	100	J	µg/L	100	11/9/2016 5:57:27 PM	R38566
4-Isopropyltoluene	ND	14	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
4-Methyl-2-pentanone	ND	43	1000		µg/L	100	11/9/2016 5:57:27 PM	R38566
Methylene Chloride	ND	19	300		µg/L	100	11/9/2016 5:57:27 PM	R38566
n-Butylbenzene	32	16	300	J	µg/L	100	11/9/2016 5:57:27 PM	R38566
n-Propylbenzene	110	13	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
sec-Butylbenzene	25	12	100	J	µg/L	100	11/9/2016 5:57:27 PM	R38566
Styrene	ND	11	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
tert-Butylbenzene	ND	12	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
1,1,1,2-Tetrachloroethane	ND	11	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
1,1,2,2-Tetrachloroethane	ND	13	200		µg/L	100	11/9/2016 5:57:27 PM	R38566
Tetrachloroethene (PCE)	ND	15	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
trans-1,2-DCE	ND	40	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
trans-1,3-Dichloropropene	ND	10	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
1,2,3-Trichlorobenzene	ND	11	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
1,2,4-Trichlorobenzene	ND	13	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
1,1,1-Trichloroethane	ND	9.1	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
1,1,2-Trichloroethane	ND	13	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
Trichloroethene (TCE)	ND	18	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
Trichlorofluoromethane	ND	20	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
1,2,3-Trichloropropane	ND	20	200		µg/L	100	11/9/2016 5:57:27 PM	R38566
Vinyl chloride	ND	20	100		µg/L	100	11/9/2016 5:57:27 PM	R38566
Xylenes, Total	9100	37	150		µg/L	100	11/9/2016 5:57:27 PM	R38566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP05
Project: 2016 4th QTR (MKTF)
Collection Date: 11/3/2016
Lab ID: 1611209-005
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	100	11/9/2016 5:57:27 PM	R38566
Surr: 4-Bromofluorobenzene	91.7	0	70-130		%Rec	100	11/9/2016 5:57:27 PM	R38566
Surr: Dibromofluoromethane	109	0	70-130		%Rec	100	11/9/2016 5:57:27 PM	R38566
Surr: Toluene-d8	101	0	70-130		%Rec	100	11/9/2016 5:57:27 PM	R38566

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-11
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 2:40:00 PM
Lab ID: 1611209-006 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	1.6	0.69	1.0		mg/L	1	11/9/2016 10:37:16 AM	28543
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/9/2016 10:37:16 AM	28543
Surr: DNOP	112	0	77.1-144		%Rec	1	11/9/2016 10:37:16 AM	28543
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	27	1.3	2.5		mg/L	50	11/9/2016 3:30:47 PM	G38568
Surr: BFB	92.8	0	66.4-120		%Rec	50	11/9/2016 3:30:47 PM	G38568
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	ND	0.25	0.50		mg/L	5	11/4/2016 11:35:02 AM	R38478
Chloride	900	5.1	50		mg/L	100	11/15/2016 6:12:07 PM	R38732
Nitrogen, Nitrite (As N)	ND	0.26	0.50		mg/L	5	11/4/2016 11:35:02 AM	R38478
Bromide	0.77	0.22	0.50		mg/L	5	11/4/2016 11:35:02 AM	R38478
Nitrogen, Nitrate (As N)	ND	0.20	0.50		mg/L	5	11/4/2016 11:35:02 AM	R38478
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5		mg/L	5	11/4/2016 11:35:02 AM	R38478
Sulfate	2.2	0.71	2.5	J	mg/L	5	11/4/2016 11:35:02 AM	R38478
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	2.6	0.0066	0.010	*	mg/L	5	11/28/2016 2:55:03 PM	B38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 2:53:14 PM	B38985
Calcium	170	2.5	5.0		mg/L	5	11/28/2016 2:55:03 PM	B38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 2:53:14 PM	B38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 2:53:14 PM	B38985
Iron	5.4	0.20	0.20	*	mg/L	10	11/28/2016 8:10:06 PM	B38985
Magnesium	48	0.50	1.0		mg/L	1	11/28/2016 2:53:14 PM	B38985
Manganese	3.9	0.0016	0.010	*	mg/L	5	11/28/2016 2:55:03 PM	B38985
Potassium	1.3	0.50	1.0		mg/L	1	11/28/2016 2:53:14 PM	B38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 2:53:14 PM	B38985
Sodium	790	5.0	10		mg/L	10	11/28/2016 8:10:06 PM	B38985
Zinc	0.0038	0.0028	0.010	J	mg/L	1	11/28/2016 2:53:14 PM	B38985
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	2.7	0.0079	0.020	*	mg/L	10	11/28/2016 10:16:21 AM	28751
Cadmium	ND	0.0015	0.0020		mg/L	1	11/21/2016 11:46:45 AM	28751
Chromium	ND	0.0027	0.0060		mg/L	1	11/21/2016 11:46:45 AM	28751
Copper	ND	0.0030	0.0060		mg/L	1	11/21/2016 11:46:45 AM	28751
Iron	8.4	0.20	0.20	*	mg/L	10	11/28/2016 10:16:21 AM	28751
Manganese	4.0	0.0027	0.020	*	mg/L	10	11/28/2016 10:16:21 AM	28751
Silver	ND	0.0015	0.0050		mg/L	1	11/21/2016 11:46:45 AM	28751
Zinc	0.011	0.0027	0.010		mg/L	1	11/28/2016 10:07:26 AM	28751
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-11
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 2:40:00 PM
Lab ID: 1611209-006 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.013	0.00014	0.0010	*	mg/L	1	11/18/2016 6:56:12 PM	A38851
Lead	ND	0.00017	0.00050		mg/L	1	11/18/2016 6:56:12 PM	A38851
Selenium	0.0046	0.00021	0.0010		mg/L	1	11/18/2016 6:56:12 PM	A38851
Uranium	0.0059	0.000051	0.00050		mg/L	1	11/18/2016 6:56:12 PM	A38851
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.014	0.00021	0.0010	*	mg/L	1	11/21/2016 5:04:11 PM	28751
Lead	0.0011	0.000081	0.00050		mg/L	1	11/18/2016 3:48:02 PM	28751
Selenium	0.0050	0.0019	0.010	J	mg/L	10	11/21/2016 5:13:17 PM	28751
Uranium	0.0065	0.00017	0.00050		mg/L	1	11/18/2016 3:48:02 PM	28751
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/18/2016 5:00:41 PM	28761
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Acenaphthylene	ND	2.4	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Aniline	7.0	2.4	10	J	µg/L	1	11/9/2016 5:03:21 PM	28498
Anthracene	ND	2.5	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Azobenzene	ND	2.7	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Benzoic acid	ND	2.6	20		µg/L	1	11/9/2016 5:03:21 PM	28498
Benzyl alcohol	ND	3.0	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Bis(2-ethylhexyl)phthalate	6.4	2.6	10	J	µg/L	1	11/9/2016 5:03:21 PM	28498
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Butyl benzyl phthalate	2.7	2.5	10	J	µg/L	1	11/9/2016 5:03:21 PM	28498
Carbazole	2.4	2.3	10	J	µg/L	1	11/9/2016 5:03:21 PM	28498
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/9/2016 5:03:21 PM	28498
4-Chloroaniline	ND	2.7	10		µg/L	1	11/9/2016 5:03:21 PM	28498
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/9/2016 5:03:21 PM	28498
2-Chlorophenol	ND	2.2	10		µg/L	1	11/9/2016 5:03:21 PM	28498
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Chrysene	ND	2.8	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/9/2016 5:03:21 PM	28498

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-11
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 2:40:00 PM
Lab ID: 1611209-006 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	7.2	2.0	10	J	µg/L	1	11/9/2016 5:03:21 PM	28498
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Dibenzofuran	ND	2.5	10		µg/L	1	11/9/2016 5:03:21 PM	28498
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/9/2016 5:03:21 PM	28498
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/9/2016 5:03:21 PM	28498
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/9/2016 5:03:21 PM	28498
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Diethyl phthalate	ND	2.7	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/9/2016 5:03:21 PM	28498
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/9/2016 5:03:21 PM	28498
2,4-Dimethylphenol	13	3.0	10		µg/L	1	11/9/2016 5:03:21 PM	28498
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/9/2016 5:03:21 PM	28498
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/9/2016 5:03:21 PM	28498
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/9/2016 5:03:21 PM	28498
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Fluoranthene	ND	2.6	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Fluorene	ND	2.7	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Hexachloroethane	ND	2.4	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Isophorone	ND	2.6	10		µg/L	1	11/9/2016 5:03:21 PM	28498
1-Methylnaphthalene	15	2.9	10		µg/L	1	11/9/2016 5:03:21 PM	28498
2-Methylnaphthalene	9.5	2.9	10	J	µg/L	1	11/9/2016 5:03:21 PM	28498
2-Methylphenol	96	2.5	10		µg/L	1	11/9/2016 5:03:21 PM	28498
3+4-Methylphenol	89	2.3	10		µg/L	1	11/9/2016 5:03:21 PM	28498
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/9/2016 5:03:21 PM	28498
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/9/2016 5:03:21 PM	28498
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Naphthalene	34	2.6	10		µg/L	1	11/9/2016 5:03:21 PM	28498
2-Nitroaniline	ND	2.8	10		µg/L	1	11/9/2016 5:03:21 PM	28498
3-Nitroaniline	ND	2.9	10		µg/L	1	11/9/2016 5:03:21 PM	28498
4-Nitroaniline	ND	2.6	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Nitrobenzene	ND	2.8	10		µg/L	1	11/9/2016 5:03:21 PM	28498
2-Nitrophenol	ND	2.4	10		µg/L	1	11/9/2016 5:03:21 PM	28498
4-Nitrophenol	ND	2.6	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Pentachlorophenol	ND	2.3	20		µg/L	1	11/9/2016 5:03:21 PM	28498
Phenanthrene	ND	2.6	10		µg/L	1	11/9/2016 5:03:21 PM	28498

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-11
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 2:40:00 PM
Lab ID: 1611209-006 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	40	2.0	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Pyrene	ND	3.1	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Pyridine	ND	2.2	10		µg/L	1	11/9/2016 5:03:21 PM	28498
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/9/2016 5:03:21 PM	28498
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/9/2016 5:03:21 PM	28498
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/9/2016 5:03:21 PM	28498
Surr: 2-Fluorophenol	28.4	0	15-98.1		%Rec	1	11/9/2016 5:03:21 PM	28498
Surr: Phenol-d5	25.3	0	15-80.7		%Rec	1	11/9/2016 5:03:21 PM	28498
Surr: 2,4,6-Tribromophenol	47.6	0	15-112		%Rec	1	11/9/2016 5:03:21 PM	28498
Surr: Nitrobenzene-d5	80.0	0	27.2-90.7		%Rec	1	11/9/2016 5:03:21 PM	28498
Surr: 2-Fluorobiphenyl	67.4	0	23.3-85.6		%Rec	1	11/9/2016 5:03:21 PM	28498
Surr: 4-Terphenyl-d14	53.4	0	27.6-107		%Rec	1	11/9/2016 5:03:21 PM	28498
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	3900	4.8	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
Toluene	4500	5.9	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
Ethylbenzene	520	5.6	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
Methyl tert-butyl ether (MTBE)	71	11	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
1,2,4-Trimethylbenzene	250	5.5	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
1,3,5-Trimethylbenzene	49	5.8	50	J	µg/L	50	11/9/2016 6:26:17 PM	R38566
1,2-Dichloroethane (EDC)	ND	5.8	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
1,2-Dibromoethane (EDB)	ND	5.6	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
Naphthalene	48	4.6	100	J	µg/L	50	11/9/2016 6:26:17 PM	R38566
1-Methylnaphthalene	ND	10	200		µg/L	50	11/9/2016 6:26:17 PM	R38566
2-Methylnaphthalene	ND	7.9	200		µg/L	50	11/9/2016 6:26:17 PM	R38566
Acetone	ND	250	500		µg/L	50	11/9/2016 6:26:17 PM	R38566
Bromobenzene	ND	4.9	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
Bromodichloromethane	ND	7.0	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
Bromoform	ND	5.1	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
Bromomethane	ND	39	150		µg/L	50	11/9/2016 6:26:17 PM	R38566
2-Butanone	220	37	500	J	µg/L	50	11/9/2016 6:26:17 PM	R38566
Carbon disulfide	ND	30	500		µg/L	50	11/9/2016 6:26:17 PM	R38566
Carbon Tetrachloride	ND	5.4	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
Chlorobenzene	ND	5.7	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
Chloroethane	ND	9.6	100		µg/L	50	11/9/2016 6:26:17 PM	R38566
Chloroform	ND	4.4	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
Chloromethane	ND	11	150		µg/L	50	11/9/2016 6:26:17 PM	R38566
2-Chlorotoluene	ND	20	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
4-Chlorotoluene	ND	6.4	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
cis-1,2-DCE	ND	6.2	50		µg/L	50	11/9/2016 6:26:17 PM	R38566

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-11
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 2:40:00 PM
Lab ID: 1611209-006 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	5.3	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
1,2-Dibromo-3-chloropropane	ND	12	100		µg/L	50	11/9/2016 6:26:17 PM	R38566
Dibromochloromethane	ND	4.3	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
Dibromomethane	ND	6.0	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
1,2-Dichlorobenzene	ND	20	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
1,3-Dichlorobenzene	ND	7.2	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
1,4-Dichlorobenzene	ND	7.1	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
Dichlorodifluoromethane	ND	18	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
1,1-Dichloroethane	57	5.4	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
1,1-Dichloroethene	ND	5.4	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
1,2-Dichloropropane	ND	5.5	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
1,3-Dichloropropane	ND	7.8	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
2,2-Dichloropropane	ND	8.3	100		µg/L	50	11/9/2016 6:26:17 PM	R38566
1,1-Dichloropropene	ND	6.7	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
Hexachlorobutadiene	ND	9.9	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
2-Hexanone	ND	42	500		µg/L	50	11/9/2016 6:26:17 PM	R38566
Isopropylbenzene	21	5.2	50	J	µg/L	50	11/9/2016 6:26:17 PM	R38566
4-Isopropyltoluene	ND	7.0	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
4-Methyl-2-pentanone	26	21	500	J	µg/L	50	11/9/2016 6:26:17 PM	R38566
Methylene Chloride	ND	9.4	150		µg/L	50	11/9/2016 6:26:17 PM	R38566
n-Butylbenzene	17	8.0	150	J	µg/L	50	11/9/2016 6:26:17 PM	R38566
n-Propylbenzene	56	6.6	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
sec-Butylbenzene	17	6.2	50	J	µg/L	50	11/9/2016 6:26:17 PM	R38566
Styrene	ND	5.5	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
tert-Butylbenzene	ND	5.8	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
1,1,1,2-Tetrachloroethane	ND	5.6	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
1,1,2,2-Tetrachloroethane	ND	6.4	100		µg/L	50	11/9/2016 6:26:17 PM	R38566
Tetrachloroethene (PCE)	ND	7.6	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
trans-1,2-DCE	ND	20	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
trans-1,3-Dichloropropene	ND	5.2	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
1,2,3-Trichlorobenzene	ND	5.6	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
1,2,4-Trichlorobenzene	ND	6.6	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
1,1,1-Trichloroethane	ND	4.6	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
1,1,2-Trichloroethane	ND	6.4	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
Trichloroethene (TCE)	ND	8.8	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
Trichlorofluoromethane	ND	10	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
1,2,3-Trichloropropane	ND	10	100		µg/L	50	11/9/2016 6:26:17 PM	R38566
Vinyl chloride	51	9.8	50		µg/L	50	11/9/2016 6:26:17 PM	R38566
Xylenes, Total	1600	18	75		µg/L	50	11/9/2016 6:26:17 PM	R38566

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-11
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 2:40:00 PM
Lab ID: 1611209-006 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	99.4	0	70-130		%Rec	50	11/9/2016 6:26:17 PM	R38566
Surr: 4-Bromofluorobenzene	91.0	0	70-130		%Rec	50	11/9/2016 6:26:17 PM	R38566
Surr: Dibromofluoromethane	108	0	70-130		%Rec	50	11/9/2016 6:26:17 PM	R38566
Surr: Toluene-d8	98.8	0	70-130		%Rec	50	11/9/2016 6:26:17 PM	R38566

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110216
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 3:00:00 PM
Lab ID: 1611209-007 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/9/2016 11:42:09 AM	28543
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/9/2016 11:42:09 AM	28543
Surr: DNOP	107	0	77.1-144		%Rec	1	11/9/2016 11:42:09 AM	28543
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/9/2016 3:55:10 PM	G38568
Surr: BFB	87.7	0	66.4-120		%Rec	1	11/9/2016 3:55:10 PM	G38568
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	ND	0.050	0.10		mg/L	1	11/4/2016 11:59:52 AM	R38478
Chloride	ND	0.051	0.50		mg/L	1	11/4/2016 11:59:52 AM	R38478
Nitrogen, Nitrite (As N)	ND	0.052	0.10		mg/L	1	11/4/2016 11:59:52 AM	R38478
Bromide	ND	0.044	0.10		mg/L	1	11/4/2016 11:59:52 AM	R38478
Nitrogen, Nitrate (As N)	ND	0.041	0.10		mg/L	1	11/4/2016 11:59:52 AM	R38478
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50		mg/L	1	11/4/2016 11:59:52 AM	R38478
Sulfate	ND	0.14	0.50		mg/L	1	11/4/2016 11:59:52 AM	R38478
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	ND	0.0013	0.0020		mg/L	1	11/28/2016 2:56:42 PM	B38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 2:56:42 PM	B38985
Calcium	ND	0.50	1.0		mg/L	1	11/28/2016 2:56:42 PM	B38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 2:56:42 PM	B38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 2:56:42 PM	B38985
Iron	ND	0.020	0.020		mg/L	1	11/28/2016 2:56:42 PM	B38985
Magnesium	ND	0.50	1.0		mg/L	1	11/28/2016 2:56:42 PM	B38985
Manganese	ND	0.00032	0.0020		mg/L	1	11/28/2016 2:56:42 PM	B38985
Potassium	ND	0.50	1.0		mg/L	1	11/28/2016 2:56:42 PM	B38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 2:56:42 PM	B38985
Sodium	ND	0.50	1.0		mg/L	1	11/28/2016 2:56:42 PM	B38985
Zinc	ND	0.0028	0.010		mg/L	1	11/28/2016 2:56:42 PM	B38985
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	ND	0.00079	0.0020		mg/L	1	11/21/2016 11:48:26 AM	28751
Cadmium	ND	0.0015	0.0020		mg/L	1	11/21/2016 11:48:26 AM	28751
Chromium	ND	0.0027	0.0060		mg/L	1	11/21/2016 11:48:26 AM	28751
Copper	ND	0.0030	0.0060		mg/L	1	11/21/2016 11:48:26 AM	28751
Iron	ND	0.020	0.020		mg/L	1	11/21/2016 11:48:26 AM	28751
Manganese	ND	0.00027	0.0020		mg/L	1	11/21/2016 11:48:26 AM	28751
Silver	ND	0.0015	0.0050		mg/L	1	11/21/2016 11:48:26 AM	28751
Zinc	ND	0.0027	0.010		mg/L	1	11/21/2016 11:48:26 AM	28751
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110216
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 3:00:00 PM
Lab ID: 1611209-007
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	ND	0.00014	0.0010		mg/L	1	11/18/2016 6:59:15 PM	A38851
Lead	ND	0.00017	0.00050		mg/L	1	11/18/2016 6:59:15 PM	A38851
Selenium	ND	0.00021	0.0010		mg/L	1	11/18/2016 6:59:15 PM	A38851
Uranium	ND	0.000051	0.00050		mg/L	1	11/18/2016 6:59:15 PM	A38851
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.00021	0.0010		mg/L	1	11/21/2016 5:16:17 PM	28751
Lead	ND	0.000081	0.00050		mg/L	1	11/18/2016 3:51:02 PM	28751
Selenium	ND	0.00019	0.0010		mg/L	1	11/21/2016 5:16:17 PM	28751
Uranium	ND	0.00017	0.00050		mg/L	1	11/18/2016 3:51:02 PM	28751
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/18/2016 5:02:33 PM	28761
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Acenaphthylene	ND	2.4	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Aniline	ND	2.4	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Anthracene	ND	2.5	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Azobenzene	ND	2.7	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Benzoic acid	7.9	2.6	20	J	µg/L	1	11/9/2016 5:31:00 PM	28498
Benzyl alcohol	ND	3.0	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Bis(2-ethylhexyl)phthalate	6.7	2.6	10	J	µg/L	1	11/9/2016 5:31:00 PM	28498
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Butyl benzyl phthalate	2.7	2.5	10	J	µg/L	1	11/9/2016 5:31:00 PM	28498
Carbazole	ND	2.3	10		µg/L	1	11/9/2016 5:31:00 PM	28498
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/9/2016 5:31:00 PM	28498
4-Chloroaniline	ND	2.7	10		µg/L	1	11/9/2016 5:31:00 PM	28498
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/9/2016 5:31:00 PM	28498
2-Chlorophenol	ND	2.2	10		µg/L	1	11/9/2016 5:31:00 PM	28498
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Chrysene	ND	2.8	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/9/2016 5:31:00 PM	28498

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Client Sample ID: FB110216
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 3:00:00 PM
Lab ID: 1611209-007
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	6.8	2.0	10	J	µg/L	1	11/9/2016 5:31:00 PM	28498
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Dibenzofuran	ND	2.5	10		µg/L	1	11/9/2016 5:31:00 PM	28498
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/9/2016 5:31:00 PM	28498
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/9/2016 5:31:00 PM	28498
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/9/2016 5:31:00 PM	28498
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Diethyl phthalate	ND	2.7	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/9/2016 5:31:00 PM	28498
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/9/2016 5:31:00 PM	28498
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/9/2016 5:31:00 PM	28498
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/9/2016 5:31:00 PM	28498
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/9/2016 5:31:00 PM	28498
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/9/2016 5:31:00 PM	28498
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Fluoranthene	ND	2.6	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Fluorene	ND	2.7	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Hexachloroethane	ND	2.4	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Isophorone	ND	2.6	10		µg/L	1	11/9/2016 5:31:00 PM	28498
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/9/2016 5:31:00 PM	28498
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/9/2016 5:31:00 PM	28498
2-Methylphenol	ND	2.5	10		µg/L	1	11/9/2016 5:31:00 PM	28498
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/9/2016 5:31:00 PM	28498
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/9/2016 5:31:00 PM	28498
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/9/2016 5:31:00 PM	28498
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Naphthalene	ND	2.6	10		µg/L	1	11/9/2016 5:31:00 PM	28498
2-Nitroaniline	ND	2.8	10		µg/L	1	11/9/2016 5:31:00 PM	28498
3-Nitroaniline	ND	2.9	10		µg/L	1	11/9/2016 5:31:00 PM	28498
4-Nitroaniline	ND	2.6	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Nitrobenzene	ND	2.8	10		µg/L	1	11/9/2016 5:31:00 PM	28498
2-Nitrophenol	ND	2.4	10		µg/L	1	11/9/2016 5:31:00 PM	28498
4-Nitrophenol	ND	2.6	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Pentachlorophenol	ND	2.3	20		µg/L	1	11/9/2016 5:31:00 PM	28498
Phenanthrene	ND	2.6	10		µg/L	1	11/9/2016 5:31:00 PM	28498

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110216
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 3:00:00 PM
Lab ID: 1611209-007
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	ND	2.0	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Pyrene	ND	3.1	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Pyridine	ND	2.2	10		µg/L	1	11/9/2016 5:31:00 PM	28498
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/9/2016 5:31:00 PM	28498
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/9/2016 5:31:00 PM	28498
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/9/2016 5:31:00 PM	28498
Surr: 2-Fluorophenol	30.2	0	15-98.1		%Rec	1	11/9/2016 5:31:00 PM	28498
Surr: Phenol-d5	27.8	0	15-80.7		%Rec	1	11/9/2016 5:31:00 PM	28498
Surr: 2,4,6-Tribromophenol	40.8	0	15-112		%Rec	1	11/9/2016 5:31:00 PM	28498
Surr: Nitrobenzene-d5	83.4	0	27.2-90.7		%Rec	1	11/9/2016 5:31:00 PM	28498
Surr: 2-Fluorobiphenyl	74.8	0	23.3-85.6		%Rec	1	11/9/2016 5:31:00 PM	28498
Surr: 4-Terphenyl-d14	72.0	0	27.6-107		%Rec	1	11/9/2016 5:31:00 PM	28498
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Toluene	ND	0.12	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Naphthalene	ND	0.093	2.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Acetone	ND	4.9	10		µg/L	1	11/9/2016 2:07:21 PM	R38566
Bromobenzene	ND	0.098	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Bromoform	ND	0.10	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Bromomethane	ND	0.78	3.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
2-Butanone	ND	0.74	10		µg/L	1	11/9/2016 2:07:21 PM	R38566
Carbon disulfide	ND	0.60	10		µg/L	1	11/9/2016 2:07:21 PM	R38566
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Chloroethane	ND	0.19	2.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Chloroform	ND	0.089	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Chloromethane	ND	0.21	3.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110216
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 3:00:00 PM
Lab ID: 1611209-007 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Dibromomethane	ND	0.12	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
2-Hexanone	ND	0.84	10		µg/L	1	11/9/2016 2:07:21 PM	R38566
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
4-Methyl-2-pentanone	0.43	0.43	10	J	µg/L	1	11/9/2016 2:07:21 PM	R38566
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Styrene	ND	0.11	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/9/2016 2:07:21 PM	R38566
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/9/2016 2:07:21 PM	R38566

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110216
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 3:00:00 PM
Lab ID: 1611209-007
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	1	11/9/2016 2:07:21 PM	R38566
Surr: 4-Bromofluorobenzene	93.6	0	70-130		%Rec	1	11/9/2016 2:07:21 PM	R38566
Surr: Dibromofluoromethane	109	0	70-130		%Rec	1	11/9/2016 2:07:21 PM	R38566
Surr: Toluene-d8	102	0	70-130		%Rec	1	11/9/2016 2:07:21 PM	R38566

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-04
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 3:35:00 PM
Lab ID: 1611209-008 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	4.1	0.69	1.0		mg/L	1	11/9/2016 12:03:33 PM	28543
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/9/2016 12:03:33 PM	28543
Surr: DNOP	102	0	77.1-144		%Rec	1	11/9/2016 12:03:33 PM	28543
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	9.8	0.51	1.0		mg/L	20	11/10/2016 12:16:54 PM	G38599
Surr: BFB	94.2	0	66.4-120		%Rec	20	11/10/2016 12:16:54 PM	G38599
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	1.0	0.25	0.50		mg/L	5	11/4/2016 12:49:30 PM	R38478
Chloride	180	1.0	10		mg/L	20	11/4/2016 1:01:55 PM	R38478
Nitrogen, Nitrite (As N)	ND	0.26	0.50		mg/L	5	11/4/2016 12:49:30 PM	R38478
Bromide	2.1	0.22	0.50		mg/L	5	11/4/2016 12:49:30 PM	R38478
Nitrogen, Nitrate (As N)	ND	0.20	0.50		mg/L	5	11/4/2016 12:49:30 PM	R38478
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5		mg/L	5	11/4/2016 12:49:30 PM	R38478
Sulfate	6.1	0.71	2.5		mg/L	5	11/4/2016 12:49:30 PM	R38478
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	2.7	0.0066	0.010	*	mg/L	5	11/28/2016 3:09:51 PM	B38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 3:00:35 PM	B38985
Calcium	110	2.5	5.0		mg/L	5	11/28/2016 3:09:51 PM	B38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 3:00:35 PM	B38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 3:00:35 PM	B38985
Iron	1.7	0.10	0.10	*	mg/L	5	11/28/2016 3:09:51 PM	B38985
Magnesium	28	0.50	1.0		mg/L	1	11/28/2016 3:00:35 PM	B38985
Manganese	1.4	0.0016	0.010	*	mg/L	5	11/28/2016 3:09:51 PM	B38985
Potassium	0.69	0.50	1.0	J	mg/L	1	11/28/2016 3:00:35 PM	B38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 3:00:35 PM	B38985
Sodium	340	2.5	5.0		mg/L	5	11/28/2016 3:09:51 PM	B38985
Zinc	0.0057	0.0028	0.010	J	mg/L	1	11/28/2016 3:00:35 PM	B38985
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	2.8	0.0079	0.020	*	mg/L	10	11/28/2016 10:20:13 AM	28751
Cadmium	ND	0.0015	0.0020		mg/L	1	11/21/2016 11:50:15 AM	28751
Chromium	ND	0.0027	0.0060		mg/L	1	11/21/2016 11:50:15 AM	28751
Copper	ND	0.0030	0.0060		mg/L	1	11/21/2016 11:50:15 AM	28751
Iron	4.6	0.20	0.20	*	mg/L	10	11/28/2016 10:20:13 AM	28751
Manganese	1.5	0.0027	0.020	*	mg/L	10	11/28/2016 10:20:13 AM	28751
Silver	ND	0.0015	0.0050		mg/L	1	11/21/2016 11:50:15 AM	28751
Zinc	0.0060	0.0027	0.010	J	mg/L	1	11/28/2016 10:18:20 AM	28751
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-04
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 3:35:00 PM
Lab ID: 1611209-008 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.010	0.00069	0.0050	*	mg/L	5	11/22/2016 2:55:36 PM	C38934
Lead	ND	0.00017	0.00050		mg/L	1	11/18/2016 7:17:38 PM	B38851
Selenium	0.011	0.0042	0.020	J	mg/L	20	11/22/2016 2:58:39 PM	C38934
Uranium	0.0031	0.000051	0.00050		mg/L	1	11/18/2016 7:17:38 PM	B38851
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.010	0.0011	0.0050	*	mg/L	5	11/21/2016 5:19:18 PM	28751
Lead	0.00063	0.000081	0.00050		mg/L	1	11/18/2016 3:54:02 PM	28751
Selenium	0.010	0.0037	0.020	J	mg/L	20	11/21/2016 5:22:18 PM	28751
Uranium	0.0041	0.00017	0.00050		mg/L	1	11/18/2016 3:54:02 PM	28751
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/18/2016 5:04:17 PM	28761
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	5.5	2.6	10	J	µg/L	1	11/9/2016 5:58:39 PM	28498
Acenaphthylene	ND	2.4	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Aniline	ND	2.4	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Anthracene	ND	2.5	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Azobenzene	ND	2.7	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Benzoic acid	ND	2.6	20		µg/L	1	11/9/2016 5:58:39 PM	28498
Benzyl alcohol	ND	3.0	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Bis(2-ethylhexyl)phthalate	6.8	2.6	10	J	µg/L	1	11/9/2016 5:58:39 PM	28498
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Carbazole	20	2.3	10		µg/L	1	11/9/2016 5:58:39 PM	28498
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/9/2016 5:58:39 PM	28498
4-Chloroaniline	ND	2.7	10		µg/L	1	11/9/2016 5:58:39 PM	28498
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/9/2016 5:58:39 PM	28498
2-Chlorophenol	ND	2.2	10		µg/L	1	11/9/2016 5:58:39 PM	28498
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Chrysene	ND	2.8	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/9/2016 5:58:39 PM	28498

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-04
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 3:35:00 PM
Lab ID: 1611209-008 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	7.3	2.0	10	J	µg/L	1	11/9/2016 5:58:39 PM	28498
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Dibenzofuran	ND	2.5	10		µg/L	1	11/9/2016 5:58:39 PM	28498
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/9/2016 5:58:39 PM	28498
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/9/2016 5:58:39 PM	28498
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/9/2016 5:58:39 PM	28498
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Diethyl phthalate	ND	2.7	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/9/2016 5:58:39 PM	28498
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/9/2016 5:58:39 PM	28498
2,4-Dimethylphenol	4.3	3.0	10	J	µg/L	1	11/9/2016 5:58:39 PM	28498
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/9/2016 5:58:39 PM	28498
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/9/2016 5:58:39 PM	28498
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/9/2016 5:58:39 PM	28498
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Fluoranthene	ND	2.6	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Fluorene	8.2	2.7	10	J	µg/L	1	11/9/2016 5:58:39 PM	28498
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Hexachloroethane	ND	2.4	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Isophorone	ND	2.6	10		µg/L	1	11/9/2016 5:58:39 PM	28498
1-Methylnaphthalene	150	2.9	10		µg/L	1	11/9/2016 5:58:39 PM	28498
2-Methylnaphthalene	170	2.9	10		µg/L	1	11/9/2016 5:58:39 PM	28498
2-Methylphenol	ND	2.5	10		µg/L	1	11/9/2016 5:58:39 PM	28498
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/9/2016 5:58:39 PM	28498
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/9/2016 5:58:39 PM	28498
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/9/2016 5:58:39 PM	28498
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Naphthalene	250	5.2	20		µg/L	2	11/16/2016 4:13:45 PM	28498
2-Nitroaniline	ND	2.8	10		µg/L	1	11/9/2016 5:58:39 PM	28498
3-Nitroaniline	ND	2.9	10		µg/L	1	11/9/2016 5:58:39 PM	28498
4-Nitroaniline	ND	2.6	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Nitrobenzene	ND	2.8	10		µg/L	1	11/9/2016 5:58:39 PM	28498
2-Nitrophenol	ND	2.4	10		µg/L	1	11/9/2016 5:58:39 PM	28498
4-Nitrophenol	ND	2.6	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Pentachlorophenol	ND	2.3	20		µg/L	1	11/9/2016 5:58:39 PM	28498
Phenanthrene	8.0	2.6	10	J	µg/L	1	11/9/2016 5:58:39 PM	28498

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-04
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 3:35:00 PM
Lab ID: 1611209-008 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	2.6	2.0	10	J	µg/L	1	11/9/2016 5:58:39 PM	28498
Pyrene	ND	3.1	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Pyridine	ND	2.2	10		µg/L	1	11/9/2016 5:58:39 PM	28498
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/9/2016 5:58:39 PM	28498
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/9/2016 5:58:39 PM	28498
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/9/2016 5:58:39 PM	28498
Surr: 2-Fluorophenol	27.5	0	15-98.1		%Rec	1	11/9/2016 5:58:39 PM	28498
Surr: Phenol-d5	25.8	0	15-80.7		%Rec	1	11/9/2016 5:58:39 PM	28498
Surr: 2,4,6-Tribromophenol	56.4	0	15-112		%Rec	1	11/9/2016 5:58:39 PM	28498
Surr: Nitrobenzene-d5	78.2	0	27.2-90.7		%Rec	1	11/9/2016 5:58:39 PM	28498
Surr: 2-Fluorobiphenyl	68.7	0	23.3-85.6		%Rec	1	11/9/2016 5:58:39 PM	28498
Surr: 4-Terphenyl-d14	50.5	0	27.6-107		%Rec	1	11/9/2016 5:58:39 PM	28498
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	880	4.8	50		µg/L	50	11/9/2016 6:55:07 PM	R38566
Toluene	18	0.59	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
Ethylbenzene	640	5.6	50		µg/L	50	11/9/2016 6:55:07 PM	R38566
Methyl tert-butyl ether (MTBE)	2100	11	50		µg/L	50	11/9/2016 6:55:07 PM	R38566
1,2,4-Trimethylbenzene	370	0.55	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
1,3,5-Trimethylbenzene	63	0.58	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
1,2-Dichloroethane (EDC)	2.3	0.58	5.0	J	µg/L	5	11/9/2016 7:23:54 PM	R38566
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
Naphthalene	300	0.46	10		µg/L	5	11/9/2016 7:23:54 PM	R38566
1-Methylnaphthalene	190	1.0	20		µg/L	5	11/9/2016 7:23:54 PM	R38566
2-Methylnaphthalene	160	0.79	20		µg/L	5	11/9/2016 7:23:54 PM	R38566
Acetone	ND	25	50		µg/L	5	11/9/2016 7:23:54 PM	R38566
Bromobenzene	ND	0.49	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
Bromodichloromethane	ND	0.70	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
Bromoform	ND	0.51	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
Bromomethane	ND	3.9	15		µg/L	5	11/9/2016 7:23:54 PM	R38566
2-Butanone	ND	3.7	50		µg/L	5	11/9/2016 7:23:54 PM	R38566
Carbon disulfide	ND	3.0	50		µg/L	5	11/9/2016 7:23:54 PM	R38566
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
Chlorobenzene	ND	0.57	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
Chloroethane	ND	0.96	10		µg/L	5	11/9/2016 7:23:54 PM	R38566
Chloroform	ND	0.44	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
Chloromethane	ND	1.1	15		µg/L	5	11/9/2016 7:23:54 PM	R38566
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
cis-1,2-DCE	5.5	0.62	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-04
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 3:35:00 PM
Lab ID: 1611209-008 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	11/9/2016 7:23:54 PM	R38566
Dibromochloromethane	ND	0.43	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
Dibromomethane	ND	0.60	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
1,1-Dichloroethane	10	0.54	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
1,1-Dichloroethene	14	0.54	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
2,2-Dichloropropane	ND	0.83	10		µg/L	5	11/9/2016 7:23:54 PM	R38566
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
2-Hexanone	ND	4.2	50		µg/L	5	11/9/2016 7:23:54 PM	R38566
Isopropylbenzene	24	0.52	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
4-Isopropyltoluene	3.7	0.70	5.0	J	µg/L	5	11/9/2016 7:23:54 PM	R38566
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	11/9/2016 7:23:54 PM	R38566
Methylene Chloride	ND	0.94	15		µg/L	5	11/9/2016 7:23:54 PM	R38566
n-Butylbenzene	6.1	0.80	15	J	µg/L	5	11/9/2016 7:23:54 PM	R38566
n-Propylbenzene	43	0.66	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
sec-Butylbenzene	4.5	0.62	5.0	J	µg/L	5	11/9/2016 7:23:54 PM	R38566
Styrene	1.5	0.55	5.0	J	µg/L	5	11/9/2016 7:23:54 PM	R38566
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	11/9/2016 7:23:54 PM	R38566
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	11/9/2016 7:23:54 PM	R38566
Vinyl chloride	ND	0.98	5.0		µg/L	5	11/9/2016 7:23:54 PM	R38566
Xylenes, Total	850	1.8	7.5		µg/L	5	11/9/2016 7:23:54 PM	R38566

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-04
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 3:35:00 PM
Lab ID: 1611209-008
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	93.6	0	70-130		%Rec	5	11/9/2016 7:23:54 PM	R38566
Surr: 4-Bromofluorobenzene	78.3	0	70-130		%Rec	5	11/9/2016 7:23:54 PM	R38566
Surr: Dibromofluoromethane	96.4	0	70-130		%Rec	5	11/9/2016 7:23:54 PM	R38566
Surr: Toluene-d8	103	0	70-130		%Rec	5	11/9/2016 7:23:54 PM	R38566

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-10
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 4:20:00 PM
Lab ID: 1611209-009 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	3.8	0.69	1.0		mg/L	1	11/9/2016 12:25:03 PM	28543
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/9/2016 12:25:03 PM	28543
Surr: DNOP	106	0	77.1-144		%Rec	1	11/9/2016 12:25:03 PM	28543
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	100	5.1	10		mg/L	200	11/9/2016 4:44:03 PM	G38568
Surr: BFB	87.6	0	66.4-120		%Rec	200	11/9/2016 4:44:03 PM	G38568
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	ND	0.25	0.50		mg/L	5	11/4/2016 1:14:19 PM	R38478
Chloride	230	1.0	10		mg/L	20	11/4/2016 1:26:44 PM	R38478
Nitrogen, Nitrite (As N)	ND	0.26	0.50		mg/L	5	11/4/2016 1:14:19 PM	R38478
Bromide	0.92	0.22	0.50		mg/L	5	11/4/2016 1:14:19 PM	R38478
Nitrogen, Nitrate (As N)	ND	0.20	0.50		mg/L	5	11/4/2016 1:14:19 PM	R38478
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5		mg/L	5	11/4/2016 1:14:19 PM	R38478
Sulfate	ND	0.71	2.5		mg/L	5	11/4/2016 1:14:19 PM	R38478
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	5.8	0.013	0.020	*	mg/L	10	11/28/2016 8:12:08 PM	B38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 3:11:55 PM	B38985
Calcium	220	2.5	5.0		mg/L	5	11/28/2016 3:13:33 PM	B38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 3:11:55 PM	B38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 3:11:55 PM	B38985
Iron	9.4	0.20	0.20	*	mg/L	10	11/28/2016 8:12:08 PM	B38985
Magnesium	53	0.50	1.0		mg/L	1	11/28/2016 3:11:55 PM	B38985
Manganese	5.2	0.0032	0.020	*	mg/L	10	11/28/2016 8:12:08 PM	B38985
Potassium	0.66	0.50	1.0	J	mg/L	1	11/28/2016 3:11:55 PM	B38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 3:11:55 PM	B38985
Sodium	270	2.5	5.0		mg/L	5	11/28/2016 3:13:33 PM	B38985
Zinc	ND	0.0028	0.010		mg/L	1	11/28/2016 3:11:55 PM	B38985
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	6.0	0.0079	0.020	*	mg/L	10	11/28/2016 10:24:01 AM	28751
Cadmium	ND	0.0015	0.0020		mg/L	1	11/21/2016 11:51:52 AM	28751
Chromium	ND	0.0027	0.0060		mg/L	1	11/21/2016 11:51:52 AM	28751
Copper	ND	0.0030	0.0060		mg/L	1	11/21/2016 11:51:52 AM	28751
Iron	10	1.0	1.0	*	mg/L	50	11/28/2016 10:25:49 AM	28751
Manganese	5.2	0.0027	0.020	*	mg/L	10	11/28/2016 10:24:01 AM	28751
Silver	ND	0.0015	0.0050		mg/L	1	11/21/2016 11:51:52 AM	28751
Zinc	0.0044	0.0027	0.010	J	mg/L	1	11/28/2016 10:22:11 AM	28751
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-10
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 4:20:00 PM
Lab ID: 1611209-009 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0080	0.00014	0.0010		mg/L	1	11/18/2016 7:20:41 PM	B38851
Lead	ND	0.00017	0.00050		mg/L	1	11/18/2016 7:20:41 PM	B38851
Selenium	0.0046	0.00021	0.0010		mg/L	1	11/18/2016 7:20:41 PM	B38851
Uranium	0.00065	0.000051	0.00050		mg/L	1	11/18/2016 7:20:41 PM	B38851
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0096	0.0011	0.0050		mg/L	5	11/21/2016 5:25:19 PM	28751
Lead	0.0011	0.000081	0.00050		mg/L	1	11/18/2016 3:57:03 PM	28751
Selenium	0.0049	0.00094	0.0050	J	mg/L	5	11/21/2016 5:25:19 PM	28751
Uranium	0.00086	0.00017	0.00050		mg/L	1	11/18/2016 3:57:03 PM	28751
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/18/2016 5:06:01 PM	28761
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	13	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Acenaphthylene	ND	12	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Aniline	ND	12	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Anthracene	ND	12	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Azobenzene	ND	13	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Benz(a)anthracene	ND	13	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Benzo(a)pyrene	ND	14	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Benzo(b)fluoranthene	ND	14	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Benzo(g,h,i)perylene	ND	13	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Benzo(k)fluoranthene	ND	15	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Benzoic acid	56	13	100	J	µg/L	1	11/9/2016 6:26:19 PM	28498
Benzyl alcohol	ND	15	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Bis(2-chloroethoxy)methane	ND	14	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Bis(2-chloroethyl)ether	ND	13	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Bis(2-chloroisopropyl)ether	ND	9.5	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Bis(2-ethylhexyl)phthalate	34	13	50	J	µg/L	1	11/9/2016 6:26:19 PM	28498
4-Bromophenyl phenyl ether	ND	13	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Butyl benzyl phthalate	14	12	50	J	µg/L	1	11/9/2016 6:26:19 PM	28498
Carbazole	ND	11	50		µg/L	1	11/9/2016 6:26:19 PM	28498
4-Chloro-3-methylphenol	ND	13	50		µg/L	1	11/9/2016 6:26:19 PM	28498
4-Chloroaniline	ND	14	50		µg/L	1	11/9/2016 6:26:19 PM	28498
2-Chloronaphthalene	ND	11	50		µg/L	1	11/9/2016 6:26:19 PM	28498
2-Chlorophenol	ND	11	50		µg/L	1	11/9/2016 6:26:19 PM	28498
4-Chlorophenyl phenyl ether	ND	13	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Chrysene	ND	14	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Di-n-butyl phthalate	ND	12	50		µg/L	1	11/9/2016 6:26:19 PM	28498

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Lab ID: 1611209-009 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	37	9.9	50	J	µg/L	1	11/9/2016 6:26:19 PM	28498
Dibenz(a,h)anthracene	ND	13	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Dibenzofuran	ND	12	50		µg/L	1	11/9/2016 6:26:19 PM	28498
1,2-Dichlorobenzene	ND	11	50		µg/L	1	11/9/2016 6:26:19 PM	28498
1,3-Dichlorobenzene	ND	11	50		µg/L	1	11/9/2016 6:26:19 PM	28498
1,4-Dichlorobenzene	ND	12	50		µg/L	1	11/9/2016 6:26:19 PM	28498
3,3´-Dichlorobenzidine	ND	12	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Diethyl phthalate	ND	14	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Dimethyl phthalate	ND	12	50		µg/L	1	11/9/2016 6:26:19 PM	28498
2,4-Dichlorophenol	ND	12	100		µg/L	1	11/9/2016 6:26:19 PM	28498
2,4-Dimethylphenol	39	15	50	J	µg/L	1	11/9/2016 6:26:19 PM	28498
4,6-Dinitro-2-methylphenol	ND	9.0	100		µg/L	1	11/9/2016 6:26:19 PM	28498
2,4-Dinitrophenol	ND	14	100		µg/L	1	11/9/2016 6:26:19 PM	28498
2,4-Dinitrotoluene	ND	16	50		µg/L	1	11/9/2016 6:26:19 PM	28498
2,6-Dinitrotoluene	ND	14	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Fluoranthene	ND	13	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Fluorene	ND	14	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Hexachlorobenzene	ND	13	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Hexachlorobutadiene	ND	11	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Hexachlorocyclopentadiene	ND	11	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Hexachloroethane	ND	12	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Indeno(1,2,3-cd)pyrene	ND	15	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Isophorone	ND	13	50		µg/L	1	11/9/2016 6:26:19 PM	28498
1-Methylnaphthalene	47	15	50	J	µg/L	1	11/9/2016 6:26:19 PM	28498
2-Methylnaphthalene	70	14	50		µg/L	1	11/9/2016 6:26:19 PM	28498
2-Methylphenol	130	13	50		µg/L	1	11/9/2016 6:26:19 PM	28498
3+4-Methylphenol	180	11	50		µg/L	1	11/9/2016 6:26:19 PM	28498
N-Nitrosodi-n-propylamine	ND	12	50		µg/L	1	11/9/2016 6:26:19 PM	28498
N-Nitrosodimethylamine	ND	11	50		µg/L	1	11/9/2016 6:26:19 PM	28498
N-Nitrosodiphenylamine	ND	12	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Naphthalene	150	13	50		µg/L	1	11/9/2016 6:26:19 PM	28498
2-Nitroaniline	ND	14	50		µg/L	1	11/9/2016 6:26:19 PM	28498
3-Nitroaniline	ND	15	50		µg/L	1	11/9/2016 6:26:19 PM	28498
4-Nitroaniline	ND	13	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Nitrobenzene	ND	14	50		µg/L	1	11/9/2016 6:26:19 PM	28498
2-Nitrophenol	ND	12	50		µg/L	1	11/9/2016 6:26:19 PM	28498
4-Nitrophenol	ND	13	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Pentachlorophenol	ND	12	100		µg/L	1	11/9/2016 6:26:19 PM	28498
Phenanthrene	ND	13	50		µg/L	1	11/9/2016 6:26:19 PM	28498

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Hall Environmental Analysis Laboratory, Inc.

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Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 4:20:00 PM
Lab ID: 1611209-009 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	79	9.9	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Pyrene	ND	15	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Pyridine	ND	11	50		µg/L	1	11/9/2016 6:26:19 PM	28498
1,2,4-Trichlorobenzene	ND	13	50		µg/L	1	11/9/2016 6:26:19 PM	28498
2,4,5-Trichlorophenol	ND	11	50		µg/L	1	11/9/2016 6:26:19 PM	28498
2,4,6-Trichlorophenol	ND	12	50		µg/L	1	11/9/2016 6:26:19 PM	28498
Surr: 2-Fluorophenol	21.5	0	15-98.1		%Rec	1	11/9/2016 6:26:19 PM	28498
Surr: Phenol-d5	17.6	0	15-80.7		%Rec	1	11/9/2016 6:26:19 PM	28498
Surr: 2,4,6-Tribromophenol	46.8	0	15-112		%Rec	1	11/9/2016 6:26:19 PM	28498
Surr: Nitrobenzene-d5	73.4	0	27.2-90.7		%Rec	1	11/9/2016 6:26:19 PM	28498
Surr: 2-Fluorobiphenyl	66.3	0	23.3-85.6		%Rec	1	11/9/2016 6:26:19 PM	28498
Surr: 4-Terphenyl-d14	61.4	0	27.6-107		%Rec	1	11/9/2016 6:26:19 PM	28498
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	17000	96	1000		µg/L	1000	11/9/2016 7:52:42 PM	R38566
Toluene	22000	120	1000		µg/L	1000	11/9/2016 7:52:42 PM	R38566
Ethylbenzene	1700	11	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
Methyl tert-butyl ether (MTBE)	ND	21	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
1,2,4-Trimethylbenzene	850	11	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
1,3,5-Trimethylbenzene	200	12	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
1,2-Dichloroethane (EDC)	ND	12	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
1,2-Dibromoethane (EDB)	ND	11	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
Naphthalene	240	9.3	200		µg/L	100	11/9/2016 8:21:33 PM	R38566
1-Methylnaphthalene	100	20	400	J	µg/L	100	11/9/2016 8:21:33 PM	R38566
2-Methylnaphthalene	100	16	400	J	µg/L	100	11/9/2016 8:21:33 PM	R38566
Acetone	ND	490	1000		µg/L	100	11/9/2016 8:21:33 PM	R38566
Bromobenzene	ND	9.8	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
Bromodichloromethane	ND	14	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
Bromoform	ND	10	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
Bromomethane	ND	78	300		µg/L	100	11/9/2016 8:21:33 PM	R38566
2-Butanone	690	74	1000	J	µg/L	100	11/9/2016 8:21:33 PM	R38566
Carbon disulfide	ND	60	1000		µg/L	100	11/9/2016 8:21:33 PM	R38566
Carbon Tetrachloride	ND	11	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
Chlorobenzene	ND	11	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
Chloroethane	ND	19	200		µg/L	100	11/9/2016 8:21:33 PM	R38566
Chloroform	ND	8.9	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
Chloromethane	ND	21	300		µg/L	100	11/9/2016 8:21:33 PM	R38566
2-Chlorotoluene	ND	40	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
4-Chlorotoluene	ND	13	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
cis-1,2-DCE	26	12	100	J	µg/L	100	11/9/2016 8:21:33 PM	R38566

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Lab ID: 1611209-009 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	11	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
1,2-Dibromo-3-chloropropane	ND	23	200		µg/L	100	11/9/2016 8:21:33 PM	R38566
Dibromochloromethane	ND	8.7	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
Dibromomethane	ND	12	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
1,2-Dichlorobenzene	ND	40	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
1,3-Dichlorobenzene	ND	14	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
1,4-Dichlorobenzene	ND	14	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
Dichlorodifluoromethane	ND	36	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
1,1-Dichloroethane	ND	11	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
1,1-Dichloroethene	ND	11	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
1,2-Dichloropropane	ND	11	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
1,3-Dichloropropane	ND	16	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
2,2-Dichloropropane	ND	17	200		µg/L	100	11/9/2016 8:21:33 PM	R38566
1,1-Dichloropropene	ND	13	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
Hexachlorobutadiene	ND	20	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
2-Hexanone	ND	84	1000		µg/L	100	11/9/2016 8:21:33 PM	R38566
Isopropylbenzene	49	10	100	J	µg/L	100	11/9/2016 8:21:33 PM	R38566
4-Isopropyltoluene	ND	14	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
4-Methyl-2-pentanone	62	43	1000	J	µg/L	100	11/9/2016 8:21:33 PM	R38566
Methylene Chloride	ND	19	300		µg/L	100	11/9/2016 8:21:33 PM	R38566
n-Butylbenzene	32	16	300	J	µg/L	100	11/9/2016 8:21:33 PM	R38566
n-Propylbenzene	130	13	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
sec-Butylbenzene	ND	12	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
Styrene	ND	11	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
tert-Butylbenzene	ND	12	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
1,1,1,2-Tetrachloroethane	ND	11	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
1,1,2,2-Tetrachloroethane	ND	13	200		µg/L	100	11/9/2016 8:21:33 PM	R38566
Tetrachloroethene (PCE)	ND	15	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
trans-1,2-DCE	ND	40	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
trans-1,3-Dichloropropene	ND	10	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
1,2,3-Trichlorobenzene	ND	11	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
1,2,4-Trichlorobenzene	ND	13	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
1,1,1-Trichloroethane	ND	9.1	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
1,1,2-Trichloroethane	ND	13	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
Trichloroethene (TCE)	ND	18	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
Trichlorofluoromethane	ND	20	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
1,2,3-Trichloropropane	ND	20	200		µg/L	100	11/9/2016 8:21:33 PM	R38566
Vinyl chloride	ND	20	100		µg/L	100	11/9/2016 8:21:33 PM	R38566
Xylenes, Total	8000	37	150		µg/L	100	11/9/2016 8:21:33 PM	R38566

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	100	11/9/2016 8:21:33 PM	R38566
Surr: 4-Bromofluorobenzene	93.2	0	70-130		%Rec	100	11/9/2016 8:21:33 PM	R38566
Surr: Dibromofluoromethane	108	0	70-130		%Rec	100	11/9/2016 8:21:33 PM	R38566
Surr: Toluene-d8	103	0	70-130		%Rec	100	11/9/2016 8:21:33 PM	R38566

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Lab ID: 1611209-010 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	1.6	0.69	1.0		mg/L	1	11/9/2016 12:46:30 PM	28543
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/9/2016 12:46:30 PM	28543
Surr: DNOP	103	0	77.1-144		%Rec	1	11/9/2016 12:46:30 PM	28543
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	7.8	0.51	1.0		mg/L	20	11/9/2016 5:08:36 PM	G38568
Surr: BFB	88.9	0	66.4-120		%Rec	20	11/9/2016 5:08:36 PM	G38568
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.46	0.25	0.50	J	mg/L	5	11/4/2016 1:39:09 PM	R38478
Chloride	150	1.0	10		mg/L	20	11/4/2016 1:51:33 PM	R38478
Nitrogen, Nitrite (As N)	ND	0.26	0.50		mg/L	5	11/4/2016 1:39:09 PM	R38478
Bromide	1.1	0.22	0.50		mg/L	5	11/4/2016 1:39:09 PM	R38478
Nitrogen, Nitrate (As N)	ND	0.20	0.50		mg/L	5	11/4/2016 1:39:09 PM	R38478
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5		mg/L	5	11/4/2016 1:39:09 PM	R38478
Sulfate	71	0.71	2.5		mg/L	5	11/4/2016 1:39:09 PM	R38478
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.40	0.0013	0.0020		mg/L	1	11/28/2016 3:15:13 PM	B38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 3:15:13 PM	B38985
Calcium	140	2.5	5.0		mg/L	5	11/28/2016 3:16:55 PM	B38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 3:15:13 PM	B38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 3:15:13 PM	B38985
Iron	0.92	0.020	0.020	*	mg/L	1	11/28/2016 3:15:13 PM	B38985
Magnesium	28	0.50	1.0		mg/L	1	11/28/2016 3:15:13 PM	B38985
Manganese	3.2	0.0016	0.010	*	mg/L	5	11/28/2016 3:16:55 PM	B38985
Potassium	0.56	0.50	1.0	J	mg/L	1	11/28/2016 3:15:13 PM	B38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 3:15:13 PM	B38985
Sodium	240	2.5	5.0		mg/L	5	11/28/2016 3:16:55 PM	B38985
Zinc	0.27	0.0028	0.010		mg/L	1	11/28/2016 3:15:13 PM	B38985
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.47	0.00079	0.0020		mg/L	1	11/21/2016 11:53:32 AM	28751
Cadmium	ND	0.0015	0.0020		mg/L	1	11/21/2016 11:53:32 AM	28751
Chromium	ND	0.0027	0.0060		mg/L	1	11/21/2016 11:53:32 AM	28751
Copper	ND	0.0030	0.0060		mg/L	1	11/21/2016 11:53:32 AM	28751
Iron	1.7	0.10	0.10	*	mg/L	5	11/28/2016 10:29:24 AM	28751
Manganese	3.6	0.0014	0.010	*	mg/L	5	11/28/2016 10:29:24 AM	28751
Silver	ND	0.0015	0.0050		mg/L	1	11/21/2016 11:53:32 AM	28751
Zinc	0.0030	0.0027	0.010	J	mg/L	1	11/28/2016 10:27:43 AM	28751
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-09
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 4:55:00 PM
Lab ID: 1611209-010 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0028	0.00014	0.0010		mg/L	1	11/18/2016 7:23:44 PM	B38851
Lead	ND	0.00017	0.00050		mg/L	1	11/18/2016 7:23:44 PM	B38851
Selenium	0.0055	0.00021	0.0010		mg/L	1	11/18/2016 7:23:44 PM	B38851
Uranium	0.0065	0.000051	0.00050		mg/L	1	11/18/2016 7:23:44 PM	B38851
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0028	0.0011	0.0050	J	mg/L	5	11/21/2016 5:31:19 PM	28751
Lead	0.0016	0.000081	0.00050		mg/L	1	11/18/2016 4:00:03 PM	28751
Selenium	0.0058	0.0037	0.020	J	mg/L	20	11/21/2016 5:34:20 PM	28751
Uranium	0.0066	0.00017	0.00050		mg/L	1	11/18/2016 4:00:03 PM	28751
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/18/2016 5:11:28 PM	28761
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	3.8	2.6	10	J	µg/L	1	11/9/2016 6:53:58 PM	28498
Acenaphthylene	ND	2.4	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Aniline	ND	2.4	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Anthracene	ND	2.5	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Azobenzene	ND	2.7	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Benzoic acid	ND	2.6	20		µg/L	1	11/9/2016 6:53:58 PM	28498
Benzyl alcohol	ND	3.0	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Bis(2-ethylhexyl)phthalate	6.6	2.6	10	J	µg/L	1	11/9/2016 6:53:58 PM	28498
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Carbazole	10	2.3	10		µg/L	1	11/9/2016 6:53:58 PM	28498
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/9/2016 6:53:58 PM	28498
4-Chloroaniline	ND	2.7	10		µg/L	1	11/9/2016 6:53:58 PM	28498
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/9/2016 6:53:58 PM	28498
2-Chlorophenol	ND	2.2	10		µg/L	1	11/9/2016 6:53:58 PM	28498
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Chrysene	ND	2.8	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/9/2016 6:53:58 PM	28498

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Collection Date: 11/2/2016 4:55:00 PM
Lab ID: 1611209-010 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	7.0	2.0	10	J	µg/L	1	11/9/2016 6:53:58 PM	28498
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Dibenzofuran	ND	2.5	10		µg/L	1	11/9/2016 6:53:58 PM	28498
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/9/2016 6:53:58 PM	28498
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/9/2016 6:53:58 PM	28498
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/9/2016 6:53:58 PM	28498
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Diethyl phthalate	ND	2.7	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/9/2016 6:53:58 PM	28498
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/9/2016 6:53:58 PM	28498
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/9/2016 6:53:58 PM	28498
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/9/2016 6:53:58 PM	28498
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/9/2016 6:53:58 PM	28498
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/9/2016 6:53:58 PM	28498
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Fluoranthene	ND	2.6	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Fluorene	6.1	2.7	10	J	µg/L	1	11/9/2016 6:53:58 PM	28498
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Hexachloroethane	ND	2.4	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Isophorone	ND	2.6	10		µg/L	1	11/9/2016 6:53:58 PM	28498
1-Methylnaphthalene	48	2.9	10		µg/L	1	11/9/2016 6:53:58 PM	28498
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/9/2016 6:53:58 PM	28498
2-Methylphenol	ND	2.5	10		µg/L	1	11/9/2016 6:53:58 PM	28498
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/9/2016 6:53:58 PM	28498
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/9/2016 6:53:58 PM	28498
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/9/2016 6:53:58 PM	28498
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Naphthalene	23	2.6	10		µg/L	1	11/9/2016 6:53:58 PM	28498
2-Nitroaniline	ND	2.8	10		µg/L	1	11/9/2016 6:53:58 PM	28498
3-Nitroaniline	ND	2.9	10		µg/L	1	11/9/2016 6:53:58 PM	28498
4-Nitroaniline	ND	2.6	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Nitrobenzene	ND	2.8	10		µg/L	1	11/9/2016 6:53:58 PM	28498
2-Nitrophenol	ND	2.4	10		µg/L	1	11/9/2016 6:53:58 PM	28498
4-Nitrophenol	ND	2.6	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Pentachlorophenol	ND	2.3	20		µg/L	1	11/9/2016 6:53:58 PM	28498
Phenanthrene	6.6	2.6	10	J	µg/L	1	11/9/2016 6:53:58 PM	28498

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Client Sample ID: MKTF-09
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 4:55:00 PM
Lab ID: 1611209-010 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	2.5	2.0	10	J	µg/L	1	11/9/2016 6:53:58 PM	28498
Pyrene	ND	3.1	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Pyridine	ND	2.2	10		µg/L	1	11/9/2016 6:53:58 PM	28498
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/9/2016 6:53:58 PM	28498
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/9/2016 6:53:58 PM	28498
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/9/2016 6:53:58 PM	28498
Surr: 2-Fluorophenol	23.1	0	15-98.1		%Rec	1	11/9/2016 6:53:58 PM	28498
Surr: Phenol-d5	19.6	0	15-80.7		%Rec	1	11/9/2016 6:53:58 PM	28498
Surr: 2,4,6-Tribromophenol	38.0	0	15-112		%Rec	1	11/9/2016 6:53:58 PM	28498
Surr: Nitrobenzene-d5	66.1	0	27.2-90.7		%Rec	1	11/9/2016 6:53:58 PM	28498
Surr: 2-Fluorobiphenyl	62.0	0	23.3-85.6		%Rec	1	11/9/2016 6:53:58 PM	28498
Surr: 4-Terphenyl-d14	50.3	0	27.6-107		%Rec	1	11/9/2016 6:53:58 PM	28498
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	1600	9.6	100		µg/L	100	11/9/2016 8:50:22 PM	R38566
Toluene	26	1.2	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
Ethylbenzene	210	1.1	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
Methyl tert-butyl ether (MTBE)	500	2.1	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
1,2,4-Trimethylbenzene	43	1.1	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
1,3,5-Trimethylbenzene	ND	1.2	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
1,2-Dichloroethane (EDC)	ND	1.2	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
Naphthalene	29	0.93	20		µg/L	10	11/9/2016 9:19:06 PM	R38566
1-Methylnaphthalene	64	2.0	40		µg/L	10	11/9/2016 9:19:06 PM	R38566
2-Methylnaphthalene	5.6	1.6	40	J	µg/L	10	11/9/2016 9:19:06 PM	R38566
Acetone	ND	49	100		µg/L	10	11/9/2016 9:19:06 PM	R38566
Bromobenzene	ND	0.98	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
Bromodichloromethane	ND	1.4	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
Bromoform	ND	1.0	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
Bromomethane	ND	7.8	30		µg/L	10	11/9/2016 9:19:06 PM	R38566
2-Butanone	ND	7.4	100		µg/L	10	11/9/2016 9:19:06 PM	R38566
Carbon disulfide	ND	6.0	100		µg/L	10	11/9/2016 9:19:06 PM	R38566
Carbon Tetrachloride	ND	1.1	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
Chlorobenzene	ND	1.1	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
Chloroethane	ND	1.9	20		µg/L	10	11/9/2016 9:19:06 PM	R38566
Chloroform	ND	0.89	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
Chloromethane	ND	2.1	30		µg/L	10	11/9/2016 9:19:06 PM	R38566
2-Chlorotoluene	ND	4.0	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
4-Chlorotoluene	ND	1.3	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
cis-1,2-DCE	27	1.2	10		µg/L	10	11/9/2016 9:19:06 PM	R38566

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Lab ID: 1611209-010 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	11/9/2016 9:19:06 PM	R38566
Dibromochloromethane	ND	0.87	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
Dibromomethane	ND	1.2	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
1,1-Dichloroethane	28	1.1	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
1,1-Dichloroethene	25	1.1	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
1,2-Dichloropropane	ND	1.1	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
1,3-Dichloropropane	ND	1.6	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
2,2-Dichloropropane	ND	1.7	20		µg/L	10	11/9/2016 9:19:06 PM	R38566
1,1-Dichloropropene	ND	1.3	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
Hexachlorobutadiene	ND	2.0	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
2-Hexanone	ND	8.4	100		µg/L	10	11/9/2016 9:19:06 PM	R38566
Isopropylbenzene	14	1.0	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
4-Isopropyltoluene	2.9	1.4	10	J	µg/L	10	11/9/2016 9:19:06 PM	R38566
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	11/9/2016 9:19:06 PM	R38566
Methylene Chloride	ND	1.9	30		µg/L	10	11/9/2016 9:19:06 PM	R38566
n-Butylbenzene	6.5	1.6	30	J	µg/L	10	11/9/2016 9:19:06 PM	R38566
n-Propylbenzene	23	1.3	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
sec-Butylbenzene	5.0	1.2	10	J	µg/L	10	11/9/2016 9:19:06 PM	R38566
Styrene	ND	1.1	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
tert-Butylbenzene	ND	1.2	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	11/9/2016 9:19:06 PM	R38566
Tetrachloroethene (PCE)	5.3	1.5	10	J	µg/L	10	11/9/2016 9:19:06 PM	R38566
trans-1,2-DCE	ND	4.0	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
1,1,1-Trichloroethane	42	0.91	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
Trichloroethene (TCE)	3.6	1.8	10	J	µg/L	10	11/9/2016 9:19:06 PM	R38566
Trichlorofluoromethane	ND	2.0	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	11/9/2016 9:19:06 PM	R38566
Vinyl chloride	ND	2.0	10		µg/L	10	11/9/2016 9:19:06 PM	R38566
Xylenes, Total	52	3.7	15		µg/L	10	11/9/2016 9:19:06 PM	R38566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-09
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 4:55:00 PM
Lab ID: 1611209-010 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	94.7	0	70-130		%Rec	10	11/9/2016 9:19:06 PM	R38566
Surr: 4-Bromofluorobenzene	83.8	0	70-130		%Rec	10	11/9/2016 9:19:06 PM	R38566
Surr: Dibromofluoromethane	101	0	70-130		%Rec	10	11/9/2016 9:19:06 PM	R38566
Surr: Toluene-d8	102	0	70-130		%Rec	10	11/9/2016 9:19:06 PM	R38566

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-15
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 5:15:00 PM
Lab ID: 1611209-011 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	6.2	0.69	1.0		mg/L	1	11/9/2016 1:08:01 PM	28543
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/9/2016 1:08:01 PM	28543
Surr: DNOP	105	0	77.1-144		%Rec	1	11/9/2016 1:08:01 PM	28543
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	110	5.1	10		mg/L	200	11/10/2016 12:41:13 PM	G38599
Surr: BFB	92.2	0	66.4-120		%Rec	200	11/10/2016 12:41:13 PM	G38599
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	ND	0.25	0.50		mg/L	5	11/4/2016 2:03:58 PM	R38478
Chloride	2800	25	250		mg/L	500	11/15/2016 6:24:32 PM	R38732
Nitrogen, Nitrite (As N)	ND	1.0	2.0		mg/L	20	11/4/2016 2:16:23 PM	R38478
Bromide	0.89	0.22	0.50		mg/L	5	11/4/2016 2:03:58 PM	R38478
Nitrogen, Nitrate (As N)	ND	0.20	0.50		mg/L	5	11/4/2016 2:03:58 PM	R38478
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5		mg/L	5	11/4/2016 2:03:58 PM	R38478
Sulfate	ND	0.71	2.5		mg/L	5	11/4/2016 2:03:58 PM	R38478
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	20	0.066	0.10	*	mg/L	50	11/28/2016 8:15:28 PM	B38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 3:18:53 PM	B38985
Calcium	590	5.0	10		mg/L	10	11/28/2016 8:13:55 PM	B38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 3:18:53 PM	B38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 3:18:53 PM	B38985
Iron	26	1.0	1.0	*	mg/L	50	11/28/2016 8:15:28 PM	B38985
Magnesium	180	2.5	5.0		mg/L	5	11/28/2016 3:20:46 PM	B38985
Manganese	6.5	0.0032	0.020	*	mg/L	10	11/28/2016 8:13:55 PM	B38985
Potassium	3.4	0.50	1.0		mg/L	1	11/28/2016 3:18:53 PM	B38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 3:18:53 PM	B38985
Sodium	1600	25	50		mg/L	50	11/28/2016 8:15:28 PM	B38985
Zinc	0.014	0.0028	0.010		mg/L	1	11/28/2016 3:18:53 PM	B38985
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	22	0.040	0.10	*	mg/L	50	11/28/2016 10:42:17 AM	28751
Cadmium	ND	0.0015	0.0020		mg/L	1	11/21/2016 11:55:15 AM	28751
Chromium	ND	0.0027	0.0060		mg/L	1	11/21/2016 11:55:15 AM	28751
Copper	ND	0.0030	0.0060		mg/L	1	11/21/2016 11:55:15 AM	28751
Iron	34	1.0	1.0	*	mg/L	50	11/28/2016 10:42:17 AM	28751
Manganese	6.8	0.0027	0.020	*	mg/L	10	11/28/2016 10:33:21 AM	28751
Silver	ND	0.0015	0.0050		mg/L	1	11/21/2016 11:55:15 AM	28751
Zinc	0.028	0.0027	0.010		mg/L	1	11/28/2016 10:31:28 AM	28751
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-15
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 5:15:00 PM
Lab ID: 1611209-011 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0027	0.00069	0.0050	J	mg/L	5	11/22/2016 3:01:43 PM	C38934
Lead	ND	0.00084	0.0025		mg/L	5	11/22/2016 3:01:43 PM	C38934
Selenium	0.0069	0.0021	0.010	J	mg/L	10	11/22/2016 3:04:46 PM	C38934
Uranium	ND	0.00026	0.0025		mg/L	5	11/22/2016 3:01:43 PM	C38934
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0037	0.0011	0.0050	J	mg/L	5	11/21/2016 5:37:20 PM	28751
Lead	0.0060	0.00041	0.0025		mg/L	5	11/21/2016 5:37:20 PM	28751
Selenium	0.0069	0.00094	0.0050		mg/L	5	11/21/2016 5:37:20 PM	28751
Uranium	ND	0.00087	0.0025		mg/L	5	11/21/2016 5:37:20 PM	28751
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/18/2016 5:13:13 PM	28761
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	13	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Acenaphthylene	ND	12	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Aniline	ND	12	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Anthracene	ND	12	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Azobenzene	ND	13	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Benz(a)anthracene	ND	13	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Benzo(a)pyrene	ND	14	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Benzo(b)fluoranthene	ND	14	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Benzo(g,h,i)perylene	ND	13	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Benzo(k)fluoranthene	ND	15	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Benzoic acid	65	13	100	J	µg/L	1	11/9/2016 7:21:31 PM	28498
Benzyl alcohol	ND	15	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Bis(2-chloroethoxy)methane	ND	14	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Bis(2-chloroethyl)ether	ND	13	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Bis(2-chloroisopropyl)ether	ND	9.5	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Bis(2-ethylhexyl)phthalate	35	13	50	J	µg/L	1	11/9/2016 7:21:31 PM	28498
4-Bromophenyl phenyl ether	ND	13	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Butyl benzyl phthalate	13	12	50	J	µg/L	1	11/9/2016 7:21:31 PM	28498
Carbazole	ND	11	50		µg/L	1	11/9/2016 7:21:31 PM	28498
4-Chloro-3-methylphenol	ND	13	50		µg/L	1	11/9/2016 7:21:31 PM	28498
4-Chloroaniline	ND	14	50		µg/L	1	11/9/2016 7:21:31 PM	28498
2-Chloronaphthalene	ND	11	50		µg/L	1	11/9/2016 7:21:31 PM	28498
2-Chlorophenol	ND	11	50		µg/L	1	11/9/2016 7:21:31 PM	28498
4-Chlorophenyl phenyl ether	ND	13	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Chrysene	ND	14	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Di-n-butyl phthalate	ND	12	50		µg/L	1	11/9/2016 7:21:31 PM	28498

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-15
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 5:15:00 PM
Lab ID: 1611209-011
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	36	9.9	50	J	µg/L	1	11/9/2016 7:21:31 PM	28498
Dibenz(a,h)anthracene	ND	13	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Dibenzofuran	ND	12	50		µg/L	1	11/9/2016 7:21:31 PM	28498
1,2-Dichlorobenzene	ND	11	50		µg/L	1	11/9/2016 7:21:31 PM	28498
1,3-Dichlorobenzene	ND	11	50		µg/L	1	11/9/2016 7:21:31 PM	28498
1,4-Dichlorobenzene	ND	12	50		µg/L	1	11/9/2016 7:21:31 PM	28498
3,3´-Dichlorobenzidine	ND	12	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Diethyl phthalate	ND	14	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Dimethyl phthalate	ND	12	50		µg/L	1	11/9/2016 7:21:31 PM	28498
2,4-Dichlorophenol	ND	12	100		µg/L	1	11/9/2016 7:21:31 PM	28498
2,4-Dimethylphenol	79	15	50		µg/L	1	11/9/2016 7:21:31 PM	28498
4,6-Dinitro-2-methylphenol	ND	9.0	100		µg/L	1	11/9/2016 7:21:31 PM	28498
2,4-Dinitrophenol	ND	14	100		µg/L	1	11/9/2016 7:21:31 PM	28498
2,4-Dinitrotoluene	ND	16	50		µg/L	1	11/9/2016 7:21:31 PM	28498
2,6-Dinitrotoluene	ND	14	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Fluoranthene	ND	13	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Fluorene	ND	14	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Hexachlorobenzene	ND	13	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Hexachlorobutadiene	ND	11	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Hexachlorocyclopentadiene	ND	11	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Hexachloroethane	ND	12	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Indeno(1,2,3-cd)pyrene	ND	15	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Isophorone	ND	13	50		µg/L	1	11/9/2016 7:21:31 PM	28498
1-Methylnaphthalene	ND	15	50		µg/L	1	11/9/2016 7:21:31 PM	28498
2-Methylnaphthalene	ND	14	50		µg/L	1	11/9/2016 7:21:31 PM	28498
2-Methylphenol	460	13	50		µg/L	1	11/9/2016 7:21:31 PM	28498
3+4-Methylphenol	550	11	50		µg/L	1	11/9/2016 7:21:31 PM	28498
N-Nitrosodi-n-propylamine	ND	12	50		µg/L	1	11/9/2016 7:21:31 PM	28498
N-Nitrosodimethylamine	ND	11	50		µg/L	1	11/9/2016 7:21:31 PM	28498
N-Nitrosodiphenylamine	ND	12	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Naphthalene	59	13	50		µg/L	1	11/9/2016 7:21:31 PM	28498
2-Nitroaniline	ND	14	50		µg/L	1	11/9/2016 7:21:31 PM	28498
3-Nitroaniline	ND	15	50		µg/L	1	11/9/2016 7:21:31 PM	28498
4-Nitroaniline	ND	13	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Nitrobenzene	ND	14	50		µg/L	1	11/9/2016 7:21:31 PM	28498
2-Nitrophenol	ND	12	50		µg/L	1	11/9/2016 7:21:31 PM	28498
4-Nitrophenol	ND	13	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Pentachlorophenol	ND	12	100		µg/L	1	11/9/2016 7:21:31 PM	28498
Phenanthrene	ND	13	50		µg/L	1	11/9/2016 7:21:31 PM	28498

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-15
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 5:15:00 PM
Lab ID: 1611209-011 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	2000	50	250		µg/L	5	11/16/2016 4:41:53 PM	28498
Pyrene	ND	15	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Pyridine	ND	11	50		µg/L	1	11/9/2016 7:21:31 PM	28498
1,2,4-Trichlorobenzene	ND	13	50		µg/L	1	11/9/2016 7:21:31 PM	28498
2,4,5-Trichlorophenol	ND	11	50		µg/L	1	11/9/2016 7:21:31 PM	28498
2,4,6-Trichlorophenol	ND	12	50		µg/L	1	11/9/2016 7:21:31 PM	28498
Surr: 2-Fluorophenol	18.1	0	15-98.1		%Rec	1	11/9/2016 7:21:31 PM	28498
Surr: Phenol-d5	19.0	0	15-80.7		%Rec	1	11/9/2016 7:21:31 PM	28498
Surr: 2,4,6-Tribromophenol	35.2	0	15-112		%Rec	1	11/9/2016 7:21:31 PM	28498
Surr: Nitrobenzene-d5	57.0	0	27.2-90.7		%Rec	1	11/9/2016 7:21:31 PM	28498
Surr: 2-Fluorobiphenyl	44.1	0	23.3-85.6		%Rec	1	11/9/2016 7:21:31 PM	28498
Surr: 4-Terphenyl-d14	37.3	0	27.6-107		%Rec	1	11/9/2016 7:21:31 PM	28498
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	20000	48	500		µg/L	500	11/10/2016 12:40:14 AM	R38566
Toluene	16000	59	500		µg/L	500	11/10/2016 12:40:14 AM	R38566
Ethylbenzene	2100	5.6	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
Methyl tert-butyl ether (MTBE)	99	11	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
1,2,4-Trimethylbenzene	630	5.5	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
1,3,5-Trimethylbenzene	190	5.8	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
1,2-Dichloroethane (EDC)	ND	5.8	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
1,2-Dibromoethane (EDB)	ND	5.6	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
Naphthalene	94	4.6	100	J	µg/L	50	11/10/2016 1:08:59 AM	R38566
1-Methylnaphthalene	ND	10	200		µg/L	50	11/10/2016 1:08:59 AM	R38566
2-Methylnaphthalene	ND	7.9	200		µg/L	50	11/10/2016 1:08:59 AM	R38566
Acetone	400	250	500	J	µg/L	50	11/10/2016 1:08:59 AM	R38566
Bromobenzene	ND	4.9	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
Bromodichloromethane	ND	7.0	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
Bromoform	ND	5.1	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
Bromomethane	ND	39	150		µg/L	50	11/10/2016 1:08:59 AM	R38566
2-Butanone	660	37	500		µg/L	50	11/10/2016 1:08:59 AM	R38566
Carbon disulfide	ND	30	500		µg/L	50	11/10/2016 1:08:59 AM	R38566
Carbon Tetrachloride	ND	5.4	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
Chlorobenzene	ND	5.7	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
Chloroethane	ND	9.6	100		µg/L	50	11/10/2016 1:08:59 AM	R38566
Chloroform	ND	4.4	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
Chloromethane	ND	11	150		µg/L	50	11/10/2016 1:08:59 AM	R38566
2-Chlorotoluene	ND	20	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
4-Chlorotoluene	ND	6.4	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
cis-1,2-DCE	ND	6.2	50		µg/L	50	11/10/2016 1:08:59 AM	R38566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-15
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 5:15:00 PM
Lab ID: 1611209-011 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	5.3	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
1,2-Dibromo-3-chloropropane	ND	12	100		µg/L	50	11/10/2016 1:08:59 AM	R38566
Dibromochloromethane	ND	4.3	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
Dibromomethane	ND	6.0	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
1,2-Dichlorobenzene	ND	20	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
1,3-Dichlorobenzene	ND	7.2	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
1,4-Dichlorobenzene	ND	7.1	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
Dichlorodifluoromethane	ND	18	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
1,1-Dichloroethane	ND	5.4	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
1,1-Dichloroethene	ND	5.4	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
1,2-Dichloropropane	ND	5.5	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
1,3-Dichloropropane	ND	7.8	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
2,2-Dichloropropane	ND	8.3	100		µg/L	50	11/10/2016 1:08:59 AM	R38566
1,1-Dichloropropene	ND	6.7	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
Hexachlorobutadiene	ND	9.9	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
2-Hexanone	ND	42	500		µg/L	50	11/10/2016 1:08:59 AM	R38566
Isopropylbenzene	120	5.2	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
4-Isopropyltoluene	17	7.0	50	J	µg/L	50	11/10/2016 1:08:59 AM	R38566
4-Methyl-2-pentanone	60	21	500	J	µg/L	50	11/10/2016 1:08:59 AM	R38566
Methylene Chloride	ND	9.4	150		µg/L	50	11/10/2016 1:08:59 AM	R38566
n-Butylbenzene	19	8.0	150	J	µg/L	50	11/10/2016 1:08:59 AM	R38566
n-Propylbenzene	150	6.6	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
sec-Butylbenzene	23	6.2	50	J	µg/L	50	11/10/2016 1:08:59 AM	R38566
Styrene	ND	5.5	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
tert-Butylbenzene	ND	5.8	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
1,1,1,2-Tetrachloroethane	ND	5.6	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
1,1,2,2-Tetrachloroethane	ND	6.4	100		µg/L	50	11/10/2016 1:08:59 AM	R38566
Tetrachloroethene (PCE)	ND	7.6	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
trans-1,2-DCE	ND	20	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
trans-1,3-Dichloropropene	ND	5.2	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
1,2,3-Trichlorobenzene	ND	5.6	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
1,2,4-Trichlorobenzene	ND	6.6	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
1,1,1-Trichloroethane	ND	4.6	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
1,1,2-Trichloroethane	ND	6.4	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
Trichloroethene (TCE)	ND	8.8	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
Trichlorofluoromethane	ND	10	50		µg/L	50	11/10/2016 1:08:59 AM	R38566
1,2,3-Trichloropropane	ND	10	100		µg/L	50	11/10/2016 1:08:59 AM	R38566
Vinyl chloride	24	9.8	50	J	µg/L	50	11/10/2016 1:08:59 AM	R38566
Xylenes, Total	7600	18	75		µg/L	50	11/10/2016 1:08:59 AM	R38566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-15
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016 5:15:00 PM
Lab ID: 1611209-011 **Matrix:** AQUEOUS **Received Date:** 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	94.5	0	70-130		%Rec	50	11/10/2016 1:08:59 AM	R38566
Surr: 4-Bromofluorobenzene	89.9	0	70-130		%Rec	50	11/10/2016 1:08:59 AM	R38566
Surr: Dibromofluoromethane	105	0	70-130		%Rec	50	11/10/2016 1:08:59 AM	R38566
Surr: Toluene-d8	101	0	70-130		%Rec	50	11/10/2016 1:08:59 AM	R38566

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP04
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016
Lab ID: 1611209-012
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	1.5	0.69	1.0		mg/L	1	11/9/2016 1:29:30 PM	28543
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/9/2016 1:29:30 PM	28543
Surr: DNOP	107	0	77.1-144		%Rec	1	11/9/2016 1:29:30 PM	28543
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	28	2.5	5.0		mg/L	100	11/9/2016 8:48:10 PM	G38568
Surr: BFB	91.3	0	66.4-120		%Rec	100	11/9/2016 8:48:10 PM	G38568
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	ND	0.25	0.50		mg/L	5	11/4/2016 3:19:28 PM	R38478
Chloride	860	5.1	50		mg/L	100	11/15/2016 6:36:57 PM	R38732
Nitrogen, Nitrite (As N)	ND	0.26	0.50		mg/L	5	11/4/2016 3:19:28 PM	R38478
Bromide	0.78	0.22	0.50		mg/L	5	11/4/2016 3:19:28 PM	R38478
Nitrogen, Nitrate (As N)	ND	0.20	0.50		mg/L	5	11/4/2016 3:19:28 PM	R38478
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5		mg/L	5	11/4/2016 3:19:28 PM	R38478
Sulfate	2.1	0.71	2.5	J	mg/L	5	11/4/2016 3:19:28 PM	R38478
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	2.6	0.0066	0.010	*	mg/L	5	11/28/2016 3:24:21 PM	B38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 3:22:28 PM	B38985
Calcium	170	2.5	5.0		mg/L	5	11/28/2016 3:24:21 PM	B38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 3:22:28 PM	B38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 3:22:28 PM	B38985
Iron	5.2	0.20	0.20	*	mg/L	10	11/28/2016 8:17:28 PM	B38985
Magnesium	47	0.50	1.0		mg/L	1	11/28/2016 3:22:28 PM	B38985
Manganese	3.9	0.0016	0.010	*	mg/L	5	11/28/2016 3:24:21 PM	B38985
Potassium	1.3	0.50	1.0		mg/L	1	11/28/2016 3:22:28 PM	B38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 3:22:28 PM	B38985
Sodium	780	5.0	10		mg/L	10	11/28/2016 8:17:28 PM	B38985
Zinc	0.0032	0.0028	0.010	J	mg/L	1	11/28/2016 3:22:28 PM	B38985
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	2.8	0.0079	0.020	*	mg/L	10	11/28/2016 10:46:07 AM	28751
Cadmium	ND	0.0015	0.0020		mg/L	1	11/21/2016 11:57:05 AM	28751
Chromium	ND	0.0027	0.0060		mg/L	1	11/21/2016 11:57:05 AM	28751
Copper	ND	0.0030	0.0060		mg/L	1	11/21/2016 11:57:05 AM	28751
Iron	8.2	0.20	0.20	*	mg/L	10	11/28/2016 10:46:07 AM	28751
Manganese	4.0	0.0027	0.020	*	mg/L	10	11/28/2016 10:46:07 AM	28751
Silver	ND	0.0015	0.0050		mg/L	1	11/21/2016 11:57:05 AM	28751
Zinc	0.012	0.0027	0.010		mg/L	1	11/28/2016 10:44:15 AM	28751
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP04
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016
Lab ID: 1611209-012
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.013	0.00014	0.0010	*	mg/L	1	11/18/2016 7:29:51 PM	B38851
Lead	ND	0.00017	0.00050		mg/L	1	11/18/2016 7:29:51 PM	B38851
Selenium	0.0045	0.00021	0.0010		mg/L	1	11/18/2016 7:29:51 PM	B38851
Uranium	0.0058	0.000051	0.00050		mg/L	1	11/18/2016 7:29:51 PM	B38851
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.014	0.00021	0.0010	*	mg/L	1	11/21/2016 5:49:25 PM	28751
Lead	0.00098	0.000081	0.00050		mg/L	1	11/18/2016 4:06:04 PM	28751
Selenium	0.0054	0.0019	0.010	J	mg/L	10	11/21/2016 5:52:26 PM	28751
Uranium	0.0068	0.00017	0.00050		mg/L	1	11/18/2016 4:06:04 PM	28751
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/18/2016 5:14:59 PM	28761
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Acenaphthylene	ND	2.4	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Aniline	ND	2.4	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Anthracene	ND	2.5	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Azobenzene	ND	2.7	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Benzoic acid	18	2.6	20	J	µg/L	1	11/9/2016 7:49:02 PM	28498
Benzyl alcohol	ND	3.0	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Bis(2-ethylhexyl)phthalate	6.7	2.6	10	J	µg/L	1	11/9/2016 7:49:02 PM	28498
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Carbazole	2.4	2.3	10	J	µg/L	1	11/9/2016 7:49:02 PM	28498
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/9/2016 7:49:02 PM	28498
4-Chloroaniline	ND	2.7	10		µg/L	1	11/9/2016 7:49:02 PM	28498
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/9/2016 7:49:02 PM	28498
2-Chlorophenol	ND	2.2	10		µg/L	1	11/9/2016 7:49:02 PM	28498
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Chrysene	ND	2.8	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/9/2016 7:49:02 PM	28498

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP04
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016
Lab ID: 1611209-012
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	8.5	2.0	10	J	µg/L	1	11/9/2016 7:49:02 PM	28498
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Dibenzofuran	ND	2.5	10		µg/L	1	11/9/2016 7:49:02 PM	28498
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/9/2016 7:49:02 PM	28498
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/9/2016 7:49:02 PM	28498
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/9/2016 7:49:02 PM	28498
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Diethyl phthalate	ND	2.7	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/9/2016 7:49:02 PM	28498
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/9/2016 7:49:02 PM	28498
2,4-Dimethylphenol	24	3.0	10		µg/L	1	11/9/2016 7:49:02 PM	28498
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/9/2016 7:49:02 PM	28498
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/9/2016 7:49:02 PM	28498
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/9/2016 7:49:02 PM	28498
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Fluoranthene	ND	2.6	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Fluorene	ND	2.7	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Hexachloroethane	ND	2.4	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Isophorone	ND	2.6	10		µg/L	1	11/9/2016 7:49:02 PM	28498
1-Methylnaphthalene	14	2.9	10		µg/L	1	11/9/2016 7:49:02 PM	28498
2-Methylnaphthalene	8.2	2.9	10	J	µg/L	1	11/9/2016 7:49:02 PM	28498
2-Methylphenol	80	2.5	10		µg/L	1	11/9/2016 7:49:02 PM	28498
3+4-Methylphenol	66	2.3	10		µg/L	1	11/9/2016 7:49:02 PM	28498
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/9/2016 7:49:02 PM	28498
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/9/2016 7:49:02 PM	28498
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Naphthalene	30	2.6	10		µg/L	1	11/9/2016 7:49:02 PM	28498
2-Nitroaniline	ND	2.8	10		µg/L	1	11/9/2016 7:49:02 PM	28498
3-Nitroaniline	ND	2.9	10		µg/L	1	11/9/2016 7:49:02 PM	28498
4-Nitroaniline	ND	2.6	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Nitrobenzene	ND	2.8	10		µg/L	1	11/9/2016 7:49:02 PM	28498
2-Nitrophenol	ND	2.4	10		µg/L	1	11/9/2016 7:49:02 PM	28498
4-Nitrophenol	ND	2.6	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Pentachlorophenol	ND	2.3	20		µg/L	1	11/9/2016 7:49:02 PM	28498
Phenanthrene	ND	2.6	10		µg/L	1	11/9/2016 7:49:02 PM	28498

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP04
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016
Lab ID: 1611209-012
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	33	2.0	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Pyrene	ND	3.1	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Pyridine	ND	2.2	10		µg/L	1	11/9/2016 7:49:02 PM	28498
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/9/2016 7:49:02 PM	28498
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/9/2016 7:49:02 PM	28498
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/9/2016 7:49:02 PM	28498
Surr: 2-Fluorophenol	23.2	0	15-98.1		%Rec	1	11/9/2016 7:49:02 PM	28498
Surr: Phenol-d5	23.5	0	15-80.7		%Rec	1	11/9/2016 7:49:02 PM	28498
Surr: 2,4,6-Tribromophenol	47.4	0	15-112		%Rec	1	11/9/2016 7:49:02 PM	28498
Surr: Nitrobenzene-d5	71.8	0	27.2-90.7		%Rec	1	11/9/2016 7:49:02 PM	28498
Surr: 2-Fluorobiphenyl	58.6	0	23.3-85.6		%Rec	1	11/9/2016 7:49:02 PM	28498
Surr: 4-Terphenyl-d14	41.7	0	27.6-107		%Rec	1	11/9/2016 7:49:02 PM	28498
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	3600	4.8	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
Toluene	4500	5.9	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
Ethylbenzene	510	5.6	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
Methyl tert-butyl ether (MTBE)	68	11	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
1,2,4-Trimethylbenzene	240	5.5	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
1,3,5-Trimethylbenzene	49	5.8	50	J	µg/L	50	11/10/2016 2:35:11 AM	R38566
1,2-Dichloroethane (EDC)	ND	5.8	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
1,2-Dibromoethane (EDB)	ND	5.6	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
Naphthalene	48	4.6	100	J	µg/L	50	11/10/2016 2:35:11 AM	R38566
1-Methylnaphthalene	ND	10	200		µg/L	50	11/10/2016 2:35:11 AM	R38566
2-Methylnaphthalene	ND	7.9	200		µg/L	50	11/10/2016 2:35:11 AM	R38566
Acetone	ND	250	500		µg/L	50	11/10/2016 2:35:11 AM	R38566
Bromobenzene	ND	4.9	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
Bromodichloromethane	ND	7.0	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
Bromoform	ND	5.1	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
Bromomethane	ND	39	150		µg/L	50	11/10/2016 2:35:11 AM	R38566
2-Butanone	ND	37	500		µg/L	50	11/10/2016 2:35:11 AM	R38566
Carbon disulfide	ND	30	500		µg/L	50	11/10/2016 2:35:11 AM	R38566
Carbon Tetrachloride	ND	5.4	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
Chlorobenzene	ND	5.7	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
Chloroethane	ND	9.6	100		µg/L	50	11/10/2016 2:35:11 AM	R38566
Chloroform	ND	4.4	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
Chloromethane	ND	11	150		µg/L	50	11/10/2016 2:35:11 AM	R38566
2-Chlorotoluene	ND	20	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
4-Chlorotoluene	ND	6.4	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
cis-1,2-DCE	ND	6.2	50		µg/L	50	11/10/2016 2:35:11 AM	R38566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP04
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016
Lab ID: 1611209-012
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	5.3	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
1,2-Dibromo-3-chloropropane	ND	12	100		µg/L	50	11/10/2016 2:35:11 AM	R38566
Dibromochloromethane	ND	4.3	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
Dibromomethane	ND	6.0	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
1,2-Dichlorobenzene	ND	20	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
1,3-Dichlorobenzene	ND	7.2	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
1,4-Dichlorobenzene	ND	7.1	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
Dichlorodifluoromethane	ND	18	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
1,1-Dichloroethane	54	5.4	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
1,1-Dichloroethene	ND	5.4	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
1,2-Dichloropropane	ND	5.5	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
1,3-Dichloropropane	ND	7.8	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
2,2-Dichloropropane	ND	8.3	100		µg/L	50	11/10/2016 2:35:11 AM	R38566
1,1-Dichloropropene	ND	6.7	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
Hexachlorobutadiene	ND	9.9	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
2-Hexanone	ND	42	500		µg/L	50	11/10/2016 2:35:11 AM	R38566
Isopropylbenzene	21	5.2	50	J	µg/L	50	11/10/2016 2:35:11 AM	R38566
4-Isopropyltoluene	ND	7.0	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
4-Methyl-2-pentanone	26	21	500	J	µg/L	50	11/10/2016 2:35:11 AM	R38566
Methylene Chloride	ND	9.4	150		µg/L	50	11/10/2016 2:35:11 AM	R38566
n-Butylbenzene	16	8.0	150	J	µg/L	50	11/10/2016 2:35:11 AM	R38566
n-Propylbenzene	54	6.6	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
sec-Butylbenzene	16	6.2	50	J	µg/L	50	11/10/2016 2:35:11 AM	R38566
Styrene	ND	5.5	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
tert-Butylbenzene	ND	5.8	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
1,1,1,2-Tetrachloroethane	ND	5.6	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
1,1,2,2-Tetrachloroethane	ND	6.4	100		µg/L	50	11/10/2016 2:35:11 AM	R38566
Tetrachloroethene (PCE)	ND	7.6	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
trans-1,2-DCE	ND	20	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
trans-1,3-Dichloropropene	ND	5.2	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
1,2,3-Trichlorobenzene	ND	5.6	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
1,2,4-Trichlorobenzene	ND	6.6	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
1,1,1-Trichloroethane	ND	4.6	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
1,1,2-Trichloroethane	ND	6.4	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
Trichloroethene (TCE)	ND	8.8	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
Trichlorofluoromethane	ND	10	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
1,2,3-Trichloropropane	ND	10	100		µg/L	50	11/10/2016 2:35:11 AM	R38566
Vinyl chloride	50	9.8	50		µg/L	50	11/10/2016 2:35:11 AM	R38566
Xylenes, Total	1500	18	75		µg/L	50	11/10/2016 2:35:11 AM	R38566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP04
Project: 2016 4th QTR (MKTF)
Collection Date: 11/2/2016
Lab ID: 1611209-012
Matrix: AQUEOUS
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	96.5	0	70-130		%Rec	50	11/10/2016 2:35:11 AM	R38566
Surr: 4-Bromofluorobenzene	94.9	0	70-130		%Rec	50	11/10/2016 2:35:11 AM	R38566
Surr: Dibromofluoromethane	105	0	70-130		%Rec	50	11/10/2016 2:35:11 AM	R38566
Surr: Toluene-d8	104	0	70-130		%Rec	50	11/10/2016 2:35:11 AM	R38566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 4th QTR (MKTF)
Collection Date:
Lab ID: 1611209-013
Matrix: TRIP BLANK
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Toluene	ND	0.12	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Naphthalene	ND	0.093	2.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Acetone	7.7	4.9	10	J	µg/L	1	11/9/2016 1:09:43 PM	R38566
Bromobenzene	ND	0.098	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Bromoform	ND	0.10	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Bromomethane	ND	0.78	3.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
2-Butanone	ND	0.74	10		µg/L	1	11/9/2016 1:09:43 PM	R38566
Carbon disulfide	ND	0.60	10		µg/L	1	11/9/2016 1:09:43 PM	R38566
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Chloroethane	ND	0.19	2.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Chloroform	ND	0.089	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Chloromethane	ND	0.21	3.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Dibromomethane	ND	0.12	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/9/2016 1:09:43 PM	R38566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 4th QTR (MKTF)
Collection Date:
Lab ID: 1611209-013
Matrix: TRIP BLANK
Received Date: 11/3/2016 4:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
2-Hexanone	ND	0.84	10		µg/L	1	11/9/2016 1:09:43 PM	R38566
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/9/2016 1:09:43 PM	R38566
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Styrene	ND	0.11	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/9/2016 1:09:43 PM	R38566
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/9/2016 1:09:43 PM	R38566
Surr: 1,2-Dichloroethane-d4	96.8	0	70-130		%Rec	1	11/9/2016 1:09:43 PM	R38566
Surr: 4-Bromofluorobenzene	91.4	0	70-130		%Rec	1	11/9/2016 1:09:43 PM	R38566
Surr: Dibromofluoromethane	105	0	70-130		%Rec	1	11/9/2016 1:09:43 PM	R38566
Surr: Toluene-d8	103	0	70-130		%Rec	1	11/9/2016 1:09:43 PM	R38566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611209**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B38985**	RunNo: **38985**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1219566** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B38985**	RunNo: **38985**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1219567** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.1	85	115			
Cadmium	0.48	0.0020	0.5000	0	95.4	85	115			
Calcium	48	1.0	50.00	0	95.2	85	115			
Chromium	0.47	0.0060	0.5000	0	93.9	85	115			
Copper	0.47	0.0060	0.5000	0	95.0	85	115			
Iron	0.46	0.020	0.5000	0	91.1	85	115			
Magnesium	49	1.0	50.00	0	98.1	85	115			
Manganese	0.46	0.0020	0.5000	0	92.3	85	115			
Potassium	50	1.0	50.00	0	99.6	85	115			
Silver	0.099	0.0050	0.1000	0	99.4	85	115			
Sodium	49	1.0	50.00	0	98.6	85	115			
Zinc	0.46	0.010	0.5000	0	92.8	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B38985**	RunNo: **38985**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1219568** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0019	0.0020	0.002000	0	94.0	50	150			J
Cadmium	0.0020	0.0020	0.002000	0	103	50	150			
Calcium	0.47	1.0	0.5000	0	93.7	50	150			J
Chromium	0.0059	0.0060	0.006000	0	97.8	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611209**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B38985**	RunNo: **38985**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1219568** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0074	0.0060	0.006000	0	124	50	150			
Iron	0.019	0.020	0.02000	0	96.6	50	150			J
Magnesium	0.50	1.0	0.5000	0	99.5	50	150			J
Manganese	0.0021	0.0020	0.002000	0	104	50	150			
Potassium	0.61	1.0	0.5000	0	123	50	150			J
Silver	0.0049	0.0050	0.005000	0	98.8	50	150			J
Sodium	0.49	1.0	0.5000	0	97.6	50	150			J
Zinc	0.0052	0.010	0.005000	0	104	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611209**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**MB-28751**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**
Client ID:	**PBW**	Batch ID:	**28751**	RunNo:	**38846**
Prep Date:	**11/18/2016**	Analysis Date:	**11/19/2016**	SeqNo:	**1214021** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	**LCS-28751**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Total Metals**
Client ID:	**LCSW**	Batch ID:	**28751**	RunNo:	**38846**
Prep Date:	**11/18/2016**	Analysis Date:	**11/19/2016**	SeqNo:	**1214022** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.5	85	115			
Cadmium	0.48	0.0020	0.5000	0	95.2	85	115			
Chromium	0.47	0.0060	0.5000	0	94.4	85	115			
Copper	0.47	0.0060	0.5000	0	94.5	85	115			
Iron	0.47	0.020	0.5000	0	94.2	85	115			
Manganese	0.47	0.0020	0.5000	0	93.1	85	115			
Silver	0.098	0.0050	0.1000	0	97.6	85	115			
Zinc	0.46	0.010	0.5000	0	93.0	85	115			

Sample ID	**LLLCS-28751**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Total Metals**
Client ID:	**BatchQC**	Batch ID:	**28751**	RunNo:	**38846**
Prep Date:	**11/18/2016**	Analysis Date:	**11/19/2016**	SeqNo:	**1214023** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	103	50	150			
Cadmium	0.0020	0.0020	0.002000	0	101	50	150			
Chromium	0.0058	0.0060	0.006000	0	96.8	50	150			J
Copper	0.0054	0.0060	0.006000	0	90.0	50	150			J
Iron	0.023	0.020	0.02000	0	117	50	150			
Manganese	0.0021	0.0020	0.002000	0	105	50	150			
Silver	0.0050	0.0050	0.005000	0	99.2	50	150			J
Zinc	0.0055	0.010	0.005000	0	111	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611209**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A38851**	RunNo: **38851**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1214205** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	94.2	85	115			
Lead	0.012	0.00050	0.01250	0	93.1	85	115			
Selenium	0.024	0.0010	0.02500	0	95.6	85	115			
Uranium	0.012	0.00050	0.01250	0	93.6	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B38851**	RunNo: **38851**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1214206** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	94.8	85	115			
Lead	0.012	0.00050	0.01250	0	92.8	85	115			
Selenium	0.024	0.0010	0.02500	0	96.6	85	115			
Uranium	0.012	0.00050	0.01250	0	93.0	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A38851**	RunNo: **38851**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1214207** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00097	0.0010	0.001000	0	97.5	50	150			J
Lead	0.00047	0.00050	0.0005000	0	94.2	50	150			J
Selenium	0.00099	0.0010	0.001000	0	99.4	50	150			J
Uranium	0.00047	0.00050	0.0005000	0	95.0	50	150			J

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B38851**	RunNo: **38851**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1214208** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00098	0.0010	0.001000	0	97.6	50	150			J
Lead	0.00047	0.00050	0.0005000	0	93.7	50	150			J
Selenium	0.00098	0.0010	0.001000	0	97.5	50	150			J
Uranium	0.00047	0.00050	0.0005000	0	94.2	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A38851**	RunNo: **38851**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1214209** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611209**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A38851**	RunNo: **38851**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1214209** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B38851**	RunNo: **38851**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1214210** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **1611375-002MSLL**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C38934**	RunNo: **38934**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1217191** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.11	0.0025	0.06250	0.04376	112	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B38934**	RunNo: **38934**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1217204** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.7	85	115			
Lead	0.012	0.00050	0.01250	0	99.7	85	115			
Selenium	0.024	0.0010	0.02500	0	97.3	85	115			
Uranium	0.012	0.00050	0.01250	0	97.2	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C38934**	RunNo: **38934**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1217205** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.2	85	115			
Lead	0.013	0.00050	0.01250	0	102	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611209**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C38934**	RunNo: **38934**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1217205** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.012	0.00050	0.01250	0	99.3	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B38934**	RunNo: **38934**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1217207** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00092	0.0010	0.001000	0	91.5	50	150			J
Lead	0.00050	0.00050	0.0005000	0	100	50	150			
Selenium	0.00087	0.0010	0.001000	0	87.4	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	97.2	50	150			J

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C38934**	RunNo: **38934**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1217208** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00099	0.0010	0.001000	0	98.9	50	150			J
Lead	0.00050	0.00050	0.0005000	0	100	50	150			J
Selenium	0.0010	0.0010	0.001000	0	99.5	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	97.5	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B38934**	RunNo: **38934**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1217210** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C38934**	RunNo: **38934**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1217211** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611209**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C38934**	RunNo: **38934**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1217211** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611209**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**MB-28751**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**28751**	RunNo:	**38823**					
Prep Date:	**11/18/2016**	Analysis Date:	**11/18/2016**	SeqNo:	**1213065**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-28751**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**28751**	RunNo:	**38823**					
Prep Date:	**11/18/2016**	Analysis Date:	**11/18/2016**	SeqNo:	**1213066**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	98.0	85	115			
Lead	0.012	0.00050	0.01250	0	99.0	85	115			
Selenium	0.024	0.0010	0.02500	0	97.9	85	115			
Uranium	0.012	0.00050	0.01250	0	98.0	85	115			

Sample ID	**MSLLLCS-28751**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**28751**	RunNo:	**38823**					
Prep Date:	**11/18/2016**	Analysis Date:	**11/18/2016**	SeqNo:	**1213067**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00096	0.0010	0.001000	0	95.7	50	150			J
Lead	0.00048	0.00050	0.0005000	0	96.1	50	150			J
Selenium	0.00093	0.0010	0.001000	0	93.4	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	97.6	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611209**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**MB-28761**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**28761**	RunNo:	**38840**					
Prep Date:	**11/18/2016**	Analysis Date:	**11/18/2016**	SeqNo:	**1213746**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-28761**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**28761**	RunNo:	**38840**					
Prep Date:	**11/18/2016**	Analysis Date:	**11/18/2016**	SeqNo:	**1213747**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.0	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611209**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R38478**	RunNo: **38478**
Prep Date:	Analysis Date: **11/4/2016**	SeqNo: **1201657** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R38478**	RunNo: **38478**
Prep Date:	Analysis Date: **11/4/2016**	SeqNo: **1201658** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	106	90	110			
Chloride	4.8	0.50	5.000	0	95.8	90	110			
Nitrogen, Nitrite (As N)	0.97	0.10	1.000	0	96.9	90	110			
Bromide	2.5	0.10	2.500	0	98.4	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	102	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	101	90	110			
Sulfate	9.9	0.50	10.00	0	98.9	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R38732**	RunNo: **38732**
Prep Date:	Analysis Date: **11/15/2016**	SeqNo: **1210192** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R38732**	RunNo: **38732**
Prep Date:	Analysis Date: **11/15/2016**	SeqNo: **1210193** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.7	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611209**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **LCS-28516**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **28516**	RunNo: **38494**
Prep Date: **11/7/2016**	Analysis Date: **11/8/2016**	SeqNo: **1203999** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.5	1.0	5.000	0	90.8	63.2	155			
Surr: DNOP	0.51		0.5000		102	77.1	144			

Sample ID **MB-28516**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **28516**	RunNo: **38494**
Prep Date: **11/7/2016**	Analysis Date: **11/8/2016**	SeqNo: **1204000** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		102	77.1	144			

Sample ID **1611209-006BMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **MKTF-11**	Batch ID: **28543**	RunNo: **38562**
Prep Date: **11/8/2016**	Analysis Date: **11/9/2016**	SeqNo: **1204855** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.0	1.0	5.000	1.609	87.9	79.6	148			
Surr: DNOP	0.54		0.5000		107	77.1	144			

Sample ID **1611209-006BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **MKTF-11**	Batch ID: **28543**	RunNo: **38562**
Prep Date: **11/8/2016**	Analysis Date: **11/9/2016**	SeqNo: **1204856** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.2	1.0	5.000	1.609	91.9	79.6	148	3.21	20	
Surr: DNOP	0.53		0.5000		106	77.1	144	0	0	

Sample ID **LCS-28543**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **28543**	RunNo: **38562**
Prep Date: **11/8/2016**	Analysis Date: **11/9/2016**	SeqNo: **1204865** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.7	1.0	5.000	0	94.0	63.2	155			
Surr: DNOP	0.52		0.5000		104	77.1	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **MB-28543**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **28543**	RunNo: **38562**
Prep Date: **11/8/2016**	Analysis Date: **11/9/2016**	SeqNo: **1204866** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		101	77.1	144			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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WO#: **1611209**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G38568**	RunNo: **38568**
Prep Date:	Analysis Date: **11/9/2016**	SeqNo: **1205252** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		90.1	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G38568**	RunNo: **38568**
Prep Date:	Analysis Date: **11/9/2016**	SeqNo: **1205253** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	91.2	80	120			
Surr: BFB	18		20.00		92.0	66.4	120			

Sample ID **1611209-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-21**	Batch ID: **G38568**	RunNo: **38568**
Prep Date:	Analysis Date: **11/9/2016**	SeqNo: **1205261** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	73	5.0	50.00	34.22	77.5	64.8	129			
Surr: BFB	1800		2000		91.5	66.4	120			

Sample ID **1611209-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-21**	Batch ID: **G38568**	RunNo: **38568**
Prep Date:	Analysis Date: **11/9/2016**	SeqNo: **1205262** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	74	5.0	50.00	34.22	78.8	64.8	129	0.901	20	
Surr: BFB	1900		2000		93.4	66.4	120	0	0	

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G38599**	RunNo: **38599**
Prep Date:	Analysis Date: **11/10/2016**	SeqNo: **1206149** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		89.5	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G38599**	RunNo: **38599**
Prep Date:	Analysis Date: **11/10/2016**	SeqNo: **1206150** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611209**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**2.5UG GRO LCS**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSW**	Batch ID:	**G38599**		RunNo:	**38599**				
Prep Date:		Analysis Date:	**11/10/2016**		SeqNo:	**1206150**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	92.4	80	120			
Surr: BFB	19		20.00		94.8	66.4	120			

Qualifiers:

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QC SUMMARY REPORT

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WO#: **1611209**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R38566**	RunNo: **38566**
Prep Date:	Analysis Date: **11/9/2016**	SeqNo: **1204743** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	70	130			
Toluene	21	1.0	20.00	0	103	70	130			
Chlorobenzene	19	1.0	20.00	0	95.4	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	101	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	90.6	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.3	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38566**	RunNo: **38566**
Prep Date:	Analysis Date: **11/9/2016**	SeqNo: **1204744** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

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WO#: **1611209**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38566**	RunNo: **38566**
Prep Date:	Analysis Date: **11/9/2016**	SeqNo: **1204744** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

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WO#: **1611209**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38566**	RunNo: **38566**
Prep Date:	Analysis Date: **11/9/2016**	SeqNo: **1204744** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.0	70	130			
Surr: Dibromofluoromethane	11		10.00		106	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Qualifiers:

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WO#: **1611209**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **lcs-28498**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **28498**	RunNo: **38590**
Prep Date: **11/7/2016**	Analysis Date: **11/9/2016**	SeqNo: **1205303** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	66	10	100.0	0	65.8	42.9	100			
4-Chloro-3-methylphenol	160	10	200.0	0	81.4	36.2	110			
2-Chlorophenol	140	10	200.0	0	72.3	33.4	97.8			
1,4-Dichlorobenzene	53	10	100.0	0	52.9	32.8	79.3			
2,4-Dinitrotoluene	63	10	100.0	0	62.8	34.9	107			
N-Nitrosodi-n-propylamine	71	10	100.0	0	71.1	30.7	111			
4-Nitrophenol	100	10	200.0	0	50.6	15	91.9			
Pentachlorophenol	110	20	200.0	0	56.9	33.3	93.5			
Phenol	110	10	200.0	0	57.2	20.9	86.4			
Pyrene	68	10	100.0	0	68.2	45.6	111			
1,2,4-Trichlorobenzene	63	10	100.0	0	62.8	38.7	88.2			
Surr: 2-Fluorophenol	120		200.0		61.2	15	98.1			
Surr: Phenol-d5	110		200.0		57.2	15	80.7			
Surr: 2,4,6-Tribromophenol	130		200.0		65.7	15	112			
Surr: Nitrobenzene-d5	71		100.0		71.2	27.2	90.7			
Surr: 2-Fluorobiphenyl	64		100.0		64.5	23.3	85.6			
Surr: 4-Terphenyl-d14	60		100.0		59.5	27.6	107			

Sample ID **lcsd-28498**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **28498**	RunNo: **38590**
Prep Date: **11/7/2016**	Analysis Date: **11/9/2016**	SeqNo: **1205304** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	65	10	100.0	0	65.2	42.9	100	0.886	0	
4-Chloro-3-methylphenol	140	10	200.0	0	71.7	36.2	110	12.7	0	
2-Chlorophenol	130	10	200.0	0	63.8	33.4	97.8	12.6	0	
1,4-Dichlorobenzene	55	10	100.0	0	54.9	32.8	79.3	3.60	0	
2,4-Dinitrotoluene	61	10	100.0	0	61.1	34.9	107	2.68	0	
N-Nitrosodi-n-propylamine	72	10	100.0	0	72.2	30.7	111	1.51	0	
4-Nitrophenol	93	10	200.0	0	46.5	15	91.9	8.57	0	
Pentachlorophenol	110	20	200.0	0	55.2	33.3	93.5	3.10	0	
Phenol	100	10	200.0	0	52.4	20.9	86.4	8.78	0	
Pyrene	65	10	100.0	0	64.7	45.6	111	5.30	0	
1,2,4-Trichlorobenzene	63	10	100.0	0	62.6	38.7	88.2	0.319	0	
Surr: 2-Fluorophenol	110		200.0		53.1	15	98.1	0	0	
Surr: Phenol-d5	110		200.0		53.4	15	80.7	0	0	
Surr: 2,4,6-Tribromophenol	130		200.0		65.1	15	112	0	0	
Surr: Nitrobenzene-d5	67		100.0		66.8	27.2	90.7	0	0	
Surr: 2-Fluorobiphenyl	60		100.0		59.5	23.3	85.6	0	0	

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611209**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID	**lcsd-28498**	SampType:	**LCS**	TestCode:	**EPA Method 8270C: Semivolatiles**					
Client ID:	**LCSW**	Batch ID:	**28498**	RunNo:	**38590**					
Prep Date:	**11/7/2016**	Analysis Date:	**11/9/2016**	SeqNo:	**1205304**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	57		100.0		57.5	27.6	107	0	0	

Sample ID	**mb-28498**	SampType:	**MBLK**	TestCode:	**EPA Method 8270C: Semivolatiles**					
Client ID:	**PBW**	Batch ID:	**28498**	RunNo:	**38590**					
Prep Date:	**11/7/2016**	Analysis Date:	**11/9/2016**	SeqNo:	**1205305**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	10	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	7.1	10								J
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	3.0	10								J
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	8.2	10								J
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1611209**
13-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th QTR (MKTF)

Sample ID **mb-28498**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28498**	RunNo: **38590**
Prep Date: **11/7/2016**	Analysis Date: **11/9/2016**	SeqNo: **1205305** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611209**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **mb-28498**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28498**	RunNo: **38590**
Prep Date: **11/7/2016**	Analysis Date: **11/9/2016**	SeqNo: **1205305** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	100		200.0		50.0	15	98.1			
Surr: Phenol-d5	87		200.0		43.7	15	80.7			
Surr: 2,4,6-Tribromophenol	160		200.0		80.8	15	112			
Surr: Nitrobenzene-d5	68		100.0		68.5	27.2	90.7			
Surr: 2-Fluorobiphenyl	65		100.0		65.3	23.3	85.6			
Surr: 4-Terphenyl-d14	72		100.0		71.9	27.6	107			

Sample ID **lcs-28584**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **28584**	RunNo: **38737**
Prep Date: **11/10/2016**	Analysis Date: **11/15/2016**	SeqNo: **1210297** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	76	10	100.0	0	75.5	42.9	100			
4-Chloro-3-methylphenol	170	10	200.0	0	86.0	36.2	110			
2-Chlorophenol	140	10	200.0	0	71.8	33.4	97.8			
1,4-Dichlorobenzene	61	10	100.0	0	60.9	32.8	79.3			
2,4-Dinitrotoluene	71	10	100.0	0	70.8	34.9	107			
N-Nitrosodi-n-propylamine	74	10	100.0	0	73.5	30.7	111			
4-Nitrophenol	120	10	200.0	0	61.3	15	91.9			
Pentachlorophenol	130	20	200.0	0	64.8	33.3	93.5			
Phenol	120	10	200.0	0	60.2	20.9	86.4			
Pyrene	66	10	100.0	0	66.1	45.6	111			
1,2,4-Trichlorobenzene	73	10	100.0	0	72.8	38.7	88.2			
Surr: 2-Fluorophenol	130		200.0		66.1	15	98.1			
Surr: Phenol-d5	130		200.0		63.4	15	80.7			
Surr: 2,4,6-Tribromophenol	160		200.0		79.1	15	112			
Surr: Nitrobenzene-d5	72		100.0		71.9	27.2	90.7			
Surr: 2-Fluorobiphenyl	72		100.0		72.2	23.3	85.6			
Surr: 4-Terphenyl-d14	67		100.0		67.3	27.6	107			

Sample ID **mb-28584**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28584**	RunNo: **38737**
Prep Date: **11/10/2016**	Analysis Date: **11/15/2016**	SeqNo: **1210298** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1611209**
13-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th QTR (MKTF)

Sample ID **mb-28584**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28584**	RunNo: **38737**
Prep Date: **11/10/2016**	Analysis Date: **11/15/2016**	SeqNo: **1210298** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	11	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	7.1	10								J
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	2.7	10								J
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	7.6	10								J
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611209**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR (MKTF)

Sample ID **mb-28584**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28584**	RunNo: **38737**
Prep Date: **11/10/2016**	Analysis Date: **11/15/2016**	SeqNo: **1210298** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	79		200.0		39.5	15	98.1			
Surr: Phenol-d5	61		200.0		30.4	15	80.7			
Surr: 2,4,6-Tribromophenol	110		200.0		56.8	15	112			
Surr: Nitrobenzene-d5	55		100.0		54.7	27.2	90.7			
Surr: 2-Fluorobiphenyl	45		100.0		45.2	23.3	85.6			
Surr: 4-Terphenyl-d14	52		100.0		51.9	27.6	107			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1611209** RcptNo: 1

Received by/date: KC 11/03/16

Logged By: **Ashley Gallegos** 11/3/2016 4:55:00 PM AG

Completed By: **Ashley Gallegos** 11/3/2016 5:50:11 PM AG

Reviewed By: aj 11/03/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes	No	Not Present ✔
2. Is Chain of Custody complete?	Yes ✔	No	Not Present
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ✔	No	NA
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No	NA
6. Sample(s) in proper container(s)?	Yes ✔	No	
7. Sufficient sample volume for indicated test(s)?	Yes ✔	No	
8. Are samples (except VOA and ONG) properly preserved?	Yes ✔	No	
9. Was preservative added to bottles?	Yes	No ✔	NA
10. VOA vials have zero headspace?	Yes ✔	No	No VOA Vials
11. Were any sample containers received broken?	Yes	No ✔	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	# of preserved bottles checked for pH: 36 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ✔	No	Adjusted? NO
14. Is it clear what analyses were requested?	Yes ✔	No	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by: JC

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?	Yes	No	NA ✔

Person Notified: _____ Date _____

By Whom: _____ Via: eMail Phone Fax In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks: PwTP- DUP04 is correct Sample ID/kt 11/04/16

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Not Present			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: NELAP [ ] Other
EDD (Type) EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 4TH QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.3

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations/Anions	WQCC Metals	Total & Dissolved		Air Bubbles (Y or N)
11/3/16	0805	WATER	MKTF-21	40 ML VOA-5	HCL	1611209-001			✓							✓						
				1 L AMBER-1	NEAT												✓					
				250ML AMBER-1	NEAT				✓													
				500 ML PLASTIC-1	HNO_3														✓			
				125 ML PLASTIC-1	HNO_3													✓	✓			
				125 ML PLASTIC-1	H_2SO_4													✓				
				500 ML PLASTIC-1	NEAT														✓			
	0900		MKTF-20	40 ML VOA-5	HCL	1611209-002			✓							✓						
				1 L AMBER-2	NEAT												✓					
				250 ML AMBER-2	NEAT				✓													
				500 ML PLASTIC-1	HNO_3														✓			
				125 ML PLASTIC-1	HNO_3													✓	✓			

Date	Time	Relinquished by:	Received by:	Date	Time
11/3/16	1118			11/3/16	1495
11/3/16	1655		Lindsey Concha	11/3/16	1655

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

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Mailing Address: 92 GIANT CROSSING RD
GALLUP NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: ☐ Standard ☒ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2016 4TH QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.3

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4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611209
3/16	0900	WATER	MKTF-20	125 mL PLASTIC-1	H_2SO_4	-002
	↓		↓	500 mL PLASTIC-1	NEAT	
	0935		FB111036	40 mL VOA-5	HCL	-003
				1L AMBER-1	NEAT	
				250 mL AMBER-1	NEAT	
				500 mL PLASTIC-1	HNO_3	
				125 mL PLASTIC-1	HNO_3	
				125 mL PLASTIC-1	H_2SO_4	
				500 mL PLASTIC-1	NEAT	
	1010		MKTF-16	40 mL VOA-5	HCL	-004
				1L AMBER-1	NEAT	
				250 mL AMBER-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)		Air Bubbles (Y or N)
											✓				
												✓			
		✓							✓						
										✓					
		✓													
												✓			
											✓	✓			
											✓				
												✓			
		✓							✓						
										✓					
		✓													

Date:	Time:	Relinquished by:	Received by:	Date	Time
11/3/16	1118			11/3/16	1445
Date:	Time:	Relinquished by:	Received by:	Date	Time
11/3/16	1655		Lindsey Concha	11/3/16	1655

Remarks:

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GALLUP REFINERY
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GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard ☒ Level 4 (Full Validation)
Accreditation: NELAP ☐ Other
EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2016 4TH QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.3

HALL ENVIRONMENTAL ANALYSIS LABORATORY
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4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611209	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations / Anions	WQCC Metals	(Total & Dissolved)		Air Bubbles (Y or N)
3/16	1010	WATER	MKTF-16	125 ML PLASTIC-1	H_2SO_4	-004												✓				
				125 ML PLASTIC-1	HNO_3													✓	✓			
				500 ML PLASTIC-1	HNO_3														✓			
	—		DUP05	40 ML VOA-5	HCL	-005			✓							✓						
				1L AMBER-1	NEAT												✓					
				250 ML AMBER	NEAT				✓													
				500 ML PLASTIC-1	HNO_3														✓			
				125 ML PLASTIC-1	HNO_3													✓	✓			
				125 ML PLASTIC-1	H_2SO_4													✓				
				500 ML PLASTIC-1	NEAT														✓			

Date:	Time:	Relinquished by:	Received by:	Date	Time
3/16	1118			11/3/16	1445
Date:	Time:	Relinquished by:	Received by:	Date	Time
3/16	1655		Lindsey Cortez	11/3/16	1655

Remarks:

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Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard ☑ Level 4 (Full Validation)
Accreditation: ☑ NELAP ☐ Other
EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2016 4TH QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.3

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4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611209	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS (TOTAL & DISSOLVED)	Air Bubbles (Y or N)
2/16	1440	WATER	MKTF-11	40 ML VOA-5	HCL	-004			✓							✓				
				1 L AMBER-2	NEAT												✓			
				250 ML AMBER-1	NEAT				✓											
				500 ML PLASTIC-1	HNO_3														✓	
				125 ML PLASTIC-1	HNO_3													✓	✓	
				125 ML PLASTIC-1	H_2SO_4													✓		
	↓		↓	500 ML PLASTIC-1	NEAT														✓	
	1500		FB110216	40 ML VOA-5	HCL	-007			✓							✓				
				1 L AMBER-1	NEAT												✓			
				250 ML AMBER-1	NEAT				✓										✓	
				500 ML PLASTIC-1	HNO_3													✓	✓	
↓	↓	↓	↓	125 ML PLASTIC-1	HNO_3													✓		

Date:	Time:	Relinquished by:	Received by:	Date	Time
3/16	0625			11/3/16	1445
1/14	1655		Lindsey Concha	11/3/16	1655

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: NELAP ☐ Other
EDD (Type) EXCEL

Turn-Around Time: [X] Standard ☐ Rush
Project Name: 2016 4TH QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes ☐ No
Sample Temperature: 1.3

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611209	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS (TOTAL & DISSOLVED)		Air Bubbles (Y or N)
11/16	1500	WATER	FB110216	125 ML PLASTIC-1	H_2SO_4	-007												✓	✓		
	↓		↓	500 ML PLASTIC-1	NEAT														✓		
	1535		MKTF-04	40 ML VOA-5	HCL	-008			✓							✓					
				1 L AMBER-1	NEAT												✓				
				250 ML AMBER-1	NEAT				✓												
				500 ML PLASTIC-1	HNO_3														✓		
				125 ML PLASTIC-1	HNO_3													✓	✓		
				125 ML PLASTIC-1	H_2SO_4													✓			
	↓		↓	500 ML PLASTIC-1	NEAT														✓		
	1620		MKTF-10	40 ML VOA-5	HCL	-009			✓							✓					
				1 L AMBER-1	NEAT												✓				
↓	↓	↓	↓	250 ML AMBER-1	NEAT				✓												

Date	Time	Relinquished by:	Received by:	Date	Time
11/3/16	0625			11/3/16	1445
11/3/16	1655		Lindsey Conche	11/3/16	1655

Remarks:

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Chain-of-Custody Record

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Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 4TH QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.3

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Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
4/16	1620	WATER	MKTF-10	500 ML PLASTIC-1	HNO_3	1611209 -009
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	
	1655		MKTF-09	40ML VOA-5	HCL	-010
				1L AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				500 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)		Air Bubbles (Y or N)
		✓							✓						
										✓	✓	✓			
											✓				
												✓			
		✓							✓						
										✓					
		✓													
												✓			
											✓	✓			
											✓				
												✓			

Date:	Time:	Relinquished by:	Received by:	Date	Time
4/16	0625			4/3/16	1945
4/16	1655		Lindsey Concha	4/3/16	1655

Remarks:

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Chain-of-Custody Record

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Tel. 505-345-3975 Fax 505-345-4107

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Mailing Address: 92 GIANT CROSSING RD. GALLUP, NM 87301

Phone #: 505-722-0231

Email or Fax#: CHERYL.JOHNSON@WNR.COM

QA/QC Package: Standard / [X] Level 4 (Full Validation)

Accreditation: NELAP / [ ] Other

EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush

Project Name: 2016 4TH QTR (MKTF)

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: [X] Yes [ ] No

Sample Temperature: 1.3

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
11/2/16	1715	WATER	MKTF-15	40 ML VOA-5	HCL	1611209-011
				1 L AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				500 ML AMB PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	
	—		DUP02 4 A 11/04/16	40 ML VOA-5	HCL	-012
				1 L AMBER-1	NEAT	
				250 ML AMBER-1	NEAT	
				500 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	HNO_3	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS / ANIONS	WQCC METALS	TOTAL & DISSOLVED	Air Bubbles (Y or N)
		✓							✓					
										✓				
		✓									A	A		
											Add	✓		
											✓	✓		
											✓	Add, A		
												✓		
		✓							✓					
										✓				
		✓												
												✓		
											✓	✓		

Date: 11/3/16 Time: 0625 Relinquished by:

Received by: Date: 11/3/16 Time: 1445

Date: 11/3/16 Time: 1655 Relinquished by:

Received by: Lindsey Concha Date: 11/3/16 Time: 1655

Remarks:

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Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
EDD (Type) EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 4TH QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.3

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS (TOTAL & DISSOLVED)	Air Bubbles (Y or N)
11/16	—	WATER	DUP02	125 ML PLASTIC-1	H_2SO_4	1611209-0132			KM A									✓	BMG A	
	—	↓	↓	500ML PLASTIC-1	NEAT														✓	
11/2/16	—	WATER	TRIP BLANK	40ML VOA 4	HCL	-0143										✓				

Remarks:

Date	Time	Relinquished by:	Received by:	Date	Time
11/3/16	0625			11/3/16	1445
11/3/16	1655		Lindsey Conoha	11/3/16	1655

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 13, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 4th QTR MKTF OrderNo.: 1611263

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 11/4/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-35
Project: 2016 4th QTR MKTF
Collection Date: 11/3/2016 3:35:00 PM
Lab ID: 1611263-001
Matrix: AQUEOUS
Received Date: 11/4/2016 2:05:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	11/10/2016 8:28:51 PM	28587
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/9/2016 1:51:11 PM	28543
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/9/2016 1:51:11 PM	28543
Surr: DNOP	108	0	77.1-144		%Rec	1	11/9/2016 1:51:11 PM	28543
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	1.7	0.25	0.50		mg/L	10	11/10/2016 3:27:45 PM	G38599
Surr: BFB	89.9	0	66.4-120		%Rec	10	11/10/2016 3:27:45 PM	G38599
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.82	0.050	0.10		mg/L	1	11/8/2016 10:29:47 AM	R38549
Chloride	54	1.0	10		mg/L	20	11/8/2016 11:07:00 AM	R38549
Bromide	0.28	0.044	0.10		mg/L	1	11/8/2016 10:29:47 AM	R38549
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/8/2016 10:29:47 AM	R38549
Sulfate	310	2.8	10		mg/L	20	11/8/2016 11:07:00 AM	R38549
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	11/8/2016 8:02:44 PM	R38550
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.23	0.0013	0.0020		mg/L	1	11/28/2016 3:26:00 PM	B38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 3:26:00 PM	B38985
Calcium	130	2.5	5.0		mg/L	5	11/28/2016 3:34:52 PM	B38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 3:26:00 PM	B38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 3:26:00 PM	B38985
Iron	3.0	0.10	0.10	*	mg/L	5	11/28/2016 3:34:52 PM	B38985
Magnesium	37	0.50	1.0		mg/L	1	11/28/2016 3:26:00 PM	B38985
Manganese	2.9	0.0016	0.010	*	mg/L	5	11/28/2016 3:34:52 PM	B38985
Potassium	ND	0.50	1.0		mg/L	1	11/28/2016 3:26:00 PM	B38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 3:26:00 PM	B38985
Sodium	130	2.5	5.0		mg/L	5	11/28/2016 3:34:52 PM	B38985
Zinc	ND	0.0028	0.010		mg/L	1	11/28/2016 3:26:00 PM	B38985
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	1.2	0.0079	0.020		mg/L	10	11/28/2016 10:49:56 AM	28751
Cadmium	ND	0.0015	0.0020		mg/L	1	11/21/2016 11:58:46 AM	28751
Chromium	0.011	0.0027	0.0060		mg/L	1	11/21/2016 11:58:46 AM	28751
Copper	0.012	0.0030	0.0060		mg/L	1	11/21/2016 11:58:46 AM	28751
Iron	22	1.0	1.0	*	mg/L	50	11/28/2016 10:51:46 AM	28751
Manganese	5.5	0.0027	0.020	*	mg/L	10	11/28/2016 10:49:56 AM	28751
Silver	ND	0.0015	0.0050		mg/L	1	11/21/2016 11:58:46 AM	28751
Zinc	0.039	0.0027	0.010		mg/L	1	11/28/2016 10:48:07 AM	28751

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-35
Project: 2016 4th QTR MKTF
Collection Date: 11/3/2016 3:35:00 PM
Lab ID: 1611263-001
Matrix: AQUEOUS
Received Date: 11/4/2016 2:05:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.00081	0.00014	0.0010	J	mg/L	1	11/18/2016 7:57:23 PM	B38851
Lead	0.00032	0.00017	0.00050	J	mg/L	1	11/18/2016 7:57:23 PM	B38851
Selenium	0.0014	0.0011	0.0050	J	mg/L	5	11/22/2016 3:23:11 PM	C38934
Uranium	0.00075	0.000051	0.00050		mg/L	1	11/18/2016 7:57:23 PM	B38851
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0035	0.00021	0.0010		mg/L	1	11/21/2016 5:55:26 PM	28751
Lead	0.019	0.000081	0.00050	*	mg/L	1	11/21/2016 5:55:26 PM	28751
Selenium	0.0024	0.00094	0.0050	J	mg/L	5	11/21/2016 5:58:27 PM	28751
Uranium	0.0039	0.00017	0.00050		mg/L	1	11/18/2016 4:15:10 PM	28751
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	0.00011	0.000053	0.00020	J	mg/L	1	11/18/2016 5:34:53 PM	28761
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	13	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Acenaphthylene	ND	12	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Aniline	ND	12	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Anthracene	ND	12	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Azobenzene	ND	13	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Benz(a)anthracene	ND	13	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Benzo(a)pyrene	ND	14	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Benzo(b)fluoranthene	ND	14	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Benzo(g,h,i)perylene	ND	13	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Benzo(k)fluoranthene	ND	15	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Benzoic acid	55	13	100	JD	µg/L	1	11/15/2016 5:35:22 PM	28584
Benzyl alcohol	ND	15	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Bis(2-chloroethoxy)methane	ND	14	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Bis(2-chloroethyl)ether	ND	13	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Bis(2-chloroisopropyl)ether	ND	9.5	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Bis(2-ethylhexyl)phthalate	34	13	50	JD	µg/L	1	11/15/2016 5:35:22 PM	28584
4-Bromophenyl phenyl ether	ND	13	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Butyl benzyl phthalate	14	12	50	JD	µg/L	1	11/15/2016 5:35:22 PM	28584
Carbazole	ND	11	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
4-Chloro-3-methylphenol	ND	13	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
4-Chloroaniline	ND	14	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
2-Chloronaphthalene	ND	11	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
2-Chlorophenol	ND	11	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
4-Chlorophenyl phenyl ether	ND	13	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Chrysene	ND	14	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Di-n-butyl phthalate	ND	12	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-35
Project: 2016 4th QTR MKTF
Collection Date: 11/3/2016 3:35:00 PM
Lab ID: 1611263-001 **Matrix:** AQUEOUS **Received Date:** 11/4/2016 2:05:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	34	9.9	50	JD	µg/L	1	11/15/2016 5:35:22 PM	28584
Dibenz(a,h)anthracene	ND	13	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Dibenzofuran	ND	12	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
1,2-Dichlorobenzene	ND	11	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
1,3-Dichlorobenzene	ND	11	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
1,4-Dichlorobenzene	ND	12	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
3,3´-Dichlorobenzidine	ND	12	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Diethyl phthalate	ND	14	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Dimethyl phthalate	ND	12	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
2,4-Dichlorophenol	ND	12	100	D	µg/L	1	11/15/2016 5:35:22 PM	28584
2,4-Dimethylphenol	ND	15	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
4,6-Dinitro-2-methylphenol	ND	9.0	100	D	µg/L	1	11/15/2016 5:35:22 PM	28584
2,4-Dinitrophenol	ND	14	100	D	µg/L	1	11/15/2016 5:35:22 PM	28584
2,4-Dinitrotoluene	ND	16	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
2,6-Dinitrotoluene	ND	14	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Fluoranthene	ND	13	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Fluorene	ND	14	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Hexachlorobenzene	ND	13	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Hexachlorobutadiene	ND	11	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Hexachlorocyclopentadiene	ND	11	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Hexachloroethane	ND	12	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Indeno(1,2,3-cd)pyrene	ND	15	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Isophorone	ND	13	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
1-Methylnaphthalene	ND	15	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
2-Methylnaphthalene	ND	14	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
2-Methylphenol	ND	13	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
3+4-Methylphenol	ND	11	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
N-Nitrosodi-n-propylamine	ND	12	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
N-Nitrosodimethylamine	ND	11	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
N-Nitrosodiphenylamine	ND	12	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Naphthalene	ND	13	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
2-Nitroaniline	ND	14	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
3-Nitroaniline	ND	15	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
4-Nitroaniline	ND	13	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Nitrobenzene	ND	14	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
2-Nitrophenol	ND	12	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
4-Nitrophenol	ND	13	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Pentachlorophenol	ND	12	100	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Phenanthrene	ND	13	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-35
Project: 2016 4th QTR MKTF
Collection Date: 11/3/2016 3:35:00 PM
Lab ID: 1611263-001 **Matrix:** AQUEOUS **Received Date:** 11/4/2016 2:05:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	ND	9.9	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Pyrene	ND	15	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Pyridine	ND	11	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
1,2,4-Trichlorobenzene	ND	13	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
2,4,5-Trichlorophenol	ND	11	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
2,4,6-Trichlorophenol	ND	12	50	D	µg/L	1	11/15/2016 5:35:22 PM	28584
Surr: 2-Fluorophenol	24.6	0	15-98.1	D	%Rec	1	11/15/2016 5:35:22 PM	28584
Surr: Phenol-d5	18.4	0	15-80.7	D	%Rec	1	11/15/2016 5:35:22 PM	28584
Surr: 2,4,6-Tribromophenol	45.1	0	15-112	D	%Rec	1	11/15/2016 5:35:22 PM	28584
Surr: Nitrobenzene-d5	70.9	0	27.2-90.7	D	%Rec	1	11/15/2016 5:35:22 PM	28584
Surr: 2-Fluorobiphenyl	56.9	0	23.3-85.6	D	%Rec	1	11/15/2016 5:35:22 PM	28584
Surr: 4-Terphenyl-d14	30.5	0	27.6-107	D	%Rec	1	11/15/2016 5:35:22 PM	28584
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	65	0.096	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Toluene	0.26	0.12	1.0	J	µg/L	1	11/11/2016 11:43:42 AM	R38668
Ethylbenzene	55	0.11	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Methyl tert-butyl ether (MTBE)	10	0.21	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
1,2,4-Trimethylbenzene	18	0.11	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
1,3,5-Trimethylbenzene	0.32	0.12	1.0	J	µg/L	1	11/11/2016 11:43:42 AM	R38668
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Naphthalene	2.8	0.093	2.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
1-Methylnaphthalene	1.6	0.20	4.0	J	µg/L	1	11/11/2016 11:43:42 AM	R38668
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Acetone	ND	4.9	10		µg/L	1	11/11/2016 11:43:42 AM	R38668
Bromobenzene	ND	0.098	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Bromoform	ND	0.10	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Bromomethane	ND	0.78	3.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
2-Butanone	ND	0.74	10		µg/L	1	11/11/2016 11:43:42 AM	R38668
Carbon disulfide	ND	0.60	10		µg/L	1	11/11/2016 11:43:42 AM	R38668
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Chlorobenzene	1.2	0.11	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Chloroethane	ND	0.19	2.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Chloroform	ND	0.089	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Chloromethane	ND	0.21	3.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-35
Project: 2016 4th QTR MKTF
Collection Date: 11/3/2016 3:35:00 PM
Lab ID: 1611263-001 **Matrix:** AQUEOUS **Received Date:** 11/4/2016 2:05:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Dibromomethane	ND	0.12	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
1,4-Dichlorobenzene	2.8	0.14	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
2-Hexanone	ND	0.84	10		µg/L	1	11/11/2016 11:43:42 AM	R38668
Isopropylbenzene	3.9	0.10	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
4-Isopropyltoluene	0.49	0.14	1.0	J	µg/L	1	11/11/2016 11:43:42 AM	R38668
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/11/2016 11:43:42 AM	R38668
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
n-Butylbenzene	0.45	0.16	3.0	J	µg/L	1	11/11/2016 11:43:42 AM	R38668
n-Propylbenzene	11	0.13	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
sec-Butylbenzene	2.1	0.12	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Styrene	ND	0.11	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
tert-Butylbenzene	0.25	0.12	1.0	J	µg/L	1	11/11/2016 11:43:42 AM	R38668
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/11/2016 11:43:42 AM	R38668
Xylenes, Total	10	0.37	1.5		µg/L	1	11/11/2016 11:43:42 AM	R38668

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-35
Project: 2016 4th QTR MKTF
Collection Date: 11/3/2016 3:35:00 PM
Lab ID: 1611263-001
Matrix: AQUEOUS
Received Date: 11/4/2016 2:05:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	83.6	0	70-130		%Rec	1	11/11/2016 11:43:42 AM	R38668
Surr: 4-Bromofluorobenzene	88.3	0	70-130		%Rec	1	11/11/2016 11:43:42 AM	R38668
Surr: Dibromofluoromethane	79.8	0	70-130		%Rec	1	11/11/2016 11:43:42 AM	R38668
Surr: Toluene-d8	103	0	70-130		%Rec	1	11/11/2016 11:43:42 AM	R38668

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-37
Project: 2016 4th QTR MKTF
Collection Date: 11/3/2016 4:45:00 PM
Lab ID: 1611263-002
Matrix: AQUEOUS
Received Date: 11/4/2016 2:05:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	0.33	0.033	0.10		µg/L	10	11/11/2016 9:21:24 AM	28587
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **TOM**	
Diesel Range Organics (DRO)	9.3	0.69	1.0		mg/L	1	11/9/2016 2:12:44 PM	28543
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/9/2016 2:12:44 PM	28543
Surr: DNOP	105	0	77.1-144		%Rec	1	11/9/2016 2:12:44 PM	28543
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	13	0.51	1.0		mg/L	20	11/10/2016 4:41:26 PM	G38599
Surr: BFB	120	0	66.4-120	S	%Rec	20	11/10/2016 4:41:26 PM	G38599
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.46	0.050	0.10		mg/L	1	11/8/2016 11:19:25 AM	R38549
Chloride	120	1.0	10		mg/L	20	11/8/2016 11:31:49 AM	R38549
Bromide	0.60	0.044	0.10		mg/L	1	11/8/2016 11:19:25 AM	R38549
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/8/2016 11:19:25 AM	R38549
Sulfate	56	2.8	10		mg/L	20	11/8/2016 11:31:49 AM	R38549
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	11/8/2016 8:52:23 PM	R38550
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.58	0.0013	0.0020		mg/L	1	11/28/2016 3:36:58 PM	B38985
Cadmium	ND	0.00075	0.0020		mg/L	1	11/28/2016 3:36:58 PM	B38985
Calcium	29	0.50	1.0		mg/L	1	11/28/2016 3:36:58 PM	B38985
Chromium	ND	0.0018	0.0060		mg/L	1	11/28/2016 3:36:58 PM	B38985
Copper	ND	0.0040	0.0060		mg/L	1	11/28/2016 3:36:58 PM	B38985
Iron	0.25	0.020	0.020		mg/L	1	11/28/2016 3:36:58 PM	B38985
Magnesium	6.4	0.50	1.0		mg/L	1	11/28/2016 3:36:58 PM	B38985
Manganese	0.46	0.00032	0.0020	*	mg/L	1	11/28/2016 3:36:58 PM	B38985
Potassium	1.7	0.50	1.0		mg/L	1	11/28/2016 3:36:58 PM	B38985
Silver	ND	0.0028	0.0050		mg/L	1	11/28/2016 3:36:58 PM	B38985
Sodium	200	2.5	5.0		mg/L	5	11/28/2016 3:39:02 PM	B38985
Zinc	ND	0.0028	0.010		mg/L	1	11/28/2016 3:36:58 PM	B38985
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.69	0.00079	0.0020		mg/L	1	11/21/2016 12:00:34 PM	28751
Cadmium	ND	0.0015	0.0020		mg/L	1	11/21/2016 12:00:34 PM	28751
Chromium	ND	0.0027	0.0060		mg/L	1	11/21/2016 12:00:34 PM	28751
Copper	0.0050	0.0030	0.0060	J	mg/L	1	11/21/2016 12:00:34 PM	28751
Iron	2.2	0.10	0.10	*	mg/L	5	11/28/2016 10:55:24 AM	28751
Manganese	0.55	0.00027	0.0020	*	mg/L	1	11/21/2016 12:00:34 PM	28751
Silver	ND	0.0015	0.0050		mg/L	1	11/21/2016 12:00:34 PM	28751
Zinc	0.015	0.0027	0.010		mg/L	1	11/28/2016 10:53:43 AM	28751

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-37
Project: 2016 4th QTR MKTF
Collection Date: 11/3/2016 4:45:00 PM
Lab ID: 1611263-002
Matrix: AQUEOUS
Received Date: 11/4/2016 2:05:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0035	0.00014	0.0010		mg/L	1	11/18/2016 8:00:26 PM	B38851
Lead	0.00025	0.00017	0.00050	J	mg/L	1	11/18/2016 8:00:26 PM	B38851
Selenium	0.0030	0.00021	0.0010		mg/L	1	11/18/2016 8:00:26 PM	B38851
Uranium	0.036	0.00026	0.0025	*	mg/L	5	11/22/2016 3:26:15 PM	C38934
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0034	0.00021	0.0010		mg/L	1	11/21/2016 6:01:27 PM	28751
Lead	0.0046	0.000081	0.00050		mg/L	1	11/18/2016 4:18:10 PM	28751
Selenium	0.0036	0.00094	0.0050	J	mg/L	5	11/21/2016 6:04:27 PM	28751
Uranium	0.025	0.00087	0.0025		mg/L	5	11/21/2016 6:04:27 PM	28751
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	0.000081	0.000053	0.00020	J	mg/L	1	11/18/2016 5:36:44 PM	28761
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Acenaphthylene	ND	2.4	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Aniline	ND	2.4	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Anthracene	ND	2.5	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Azobenzene	ND	2.7	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Benzoic acid	19	2.6	20	J	µg/L	1	11/9/2016 8:43:57 PM	28498
Benzyl alcohol	ND	3.0	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Bis(2-ethylhexyl)phthalate	8.4	2.6	10	J	µg/L	1	11/9/2016 8:43:57 PM	28498
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Carbazole	ND	2.3	10		µg/L	1	11/9/2016 8:43:57 PM	28498
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/9/2016 8:43:57 PM	28498
4-Chloroaniline	ND	2.7	10		µg/L	1	11/9/2016 8:43:57 PM	28498
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/9/2016 8:43:57 PM	28498
2-Chlorophenol	ND	2.2	10		µg/L	1	11/9/2016 8:43:57 PM	28498
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Chrysene	ND	2.8	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/9/2016 8:43:57 PM	28498

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Hall Environmental Analysis Laboratory, Inc.

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Project: 2016 4th QTR MKTF
Collection Date: 11/3/2016 4:45:00 PM
Lab ID: 1611263-002
Matrix: AQUEOUS
Received Date: 11/4/2016 2:05:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	6.9	2.0	10	J	µg/L	1	11/9/2016 8:43:57 PM	28498
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Dibenzofuran	ND	2.5	10		µg/L	1	11/9/2016 8:43:57 PM	28498
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/9/2016 8:43:57 PM	28498
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/9/2016 8:43:57 PM	28498
1,4-Dichlorobenzene	3.2	2.4	10	J	µg/L	1	11/9/2016 8:43:57 PM	28498
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Diethyl phthalate	ND	2.7	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/9/2016 8:43:57 PM	28498
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/9/2016 8:43:57 PM	28498
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/9/2016 8:43:57 PM	28498
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/9/2016 8:43:57 PM	28498
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/9/2016 8:43:57 PM	28498
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/9/2016 8:43:57 PM	28498
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Fluoranthene	ND	2.6	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Fluorene	ND	2.7	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Hexachloroethane	ND	2.4	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Isophorone	ND	2.6	10		µg/L	1	11/9/2016 8:43:57 PM	28498
1-Methylnaphthalene	51	2.9	10		µg/L	1	11/9/2016 8:43:57 PM	28498
2-Methylnaphthalene	64	2.9	10		µg/L	1	11/9/2016 8:43:57 PM	28498
2-Methylphenol	12	2.5	10		µg/L	1	11/9/2016 8:43:57 PM	28498
3+4-Methylphenol	3.5	2.3	10	J	µg/L	1	11/9/2016 8:43:57 PM	28498
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/9/2016 8:43:57 PM	28498
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/9/2016 8:43:57 PM	28498
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Naphthalene	200	2.6	10		µg/L	1	11/9/2016 8:43:57 PM	28498
2-Nitroaniline	ND	2.8	10		µg/L	1	11/9/2016 8:43:57 PM	28498
3-Nitroaniline	ND	2.9	10		µg/L	1	11/9/2016 8:43:57 PM	28498
4-Nitroaniline	ND	2.6	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Nitrobenzene	ND	2.8	10		µg/L	1	11/9/2016 8:43:57 PM	28498
2-Nitrophenol	ND	2.4	10		µg/L	1	11/9/2016 8:43:57 PM	28498
4-Nitrophenol	ND	2.6	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Pentachlorophenol	ND	2.3	20		µg/L	1	11/9/2016 8:43:57 PM	28498
Phenanthrene	ND	2.6	10		µg/L	1	11/9/2016 8:43:57 PM	28498

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Hall Environmental Analysis Laboratory, Inc.

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Lab ID: 1611263-002
Matrix: AQUEOUS
Received Date: 11/4/2016 2:05:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	7.4	2.0	10	J	µg/L	1	11/9/2016 8:43:57 PM	28498
Pyrene	ND	3.1	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Pyridine	ND	2.2	10		µg/L	1	11/9/2016 8:43:57 PM	28498
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/9/2016 8:43:57 PM	28498
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/9/2016 8:43:57 PM	28498
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/9/2016 8:43:57 PM	28498
Surr: 2-Fluorophenol	20.8	0	15-98.1		%Rec	1	11/9/2016 8:43:57 PM	28498
Surr: Phenol-d5	18.5	0	15-80.7		%Rec	1	11/9/2016 8:43:57 PM	28498
Surr: 2,4,6-Tribromophenol	36.3	0	15-112		%Rec	1	11/9/2016 8:43:57 PM	28498
Surr: Nitrobenzene-d5	52.6	0	27.2-90.7		%Rec	1	11/9/2016 8:43:57 PM	28498
Surr: 2-Fluorobiphenyl	48.0	0	23.3-85.6		%Rec	1	11/9/2016 8:43:57 PM	28498
Surr: 4-Terphenyl-d14	37.6	0	27.6-107		%Rec	1	11/9/2016 8:43:57 PM	28498
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	960	0.96	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
Toluene	12	1.2	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
Ethylbenzene	14	1.1	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
Methyl tert-butyl ether (MTBE)	30	2.1	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
1,2,4-Trimethylbenzene	470	1.1	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
1,3,5-Trimethylbenzene	70	1.2	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
1,2-Dichloroethane (EDC)	9.3	1.2	10	J	µg/L	10	11/11/2016 12:41:18 PM	R38668
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
Naphthalene	380	0.93	20		µg/L	10	11/11/2016 12:41:18 PM	R38668
1-Methylnaphthalene	66	2.0	40		µg/L	10	11/11/2016 12:41:18 PM	R38668
2-Methylnaphthalene	81	1.6	40		µg/L	10	11/11/2016 12:41:18 PM	R38668
Acetone	ND	49	100		µg/L	10	11/11/2016 12:41:18 PM	R38668
Bromobenzene	ND	0.98	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
Bromodichloromethane	ND	1.4	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
Bromoform	ND	1.0	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
Bromomethane	ND	7.8	30		µg/L	10	11/11/2016 12:41:18 PM	R38668
2-Butanone	35	7.4	100	J	µg/L	10	11/11/2016 12:41:18 PM	R38668
Carbon disulfide	ND	6.0	100		µg/L	10	11/11/2016 12:41:18 PM	R38668
Carbon Tetrachloride	ND	1.1	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
Chlorobenzene	ND	1.1	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
Chloroethane	ND	1.9	20		µg/L	10	11/11/2016 12:41:18 PM	R38668
Chloroform	ND	0.89	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
Chloromethane	ND	2.1	30		µg/L	10	11/11/2016 12:41:18 PM	R38668
2-Chlorotoluene	ND	4.0	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
4-Chlorotoluene	ND	1.3	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
cis-1,2-DCE	ND	1.2	10		µg/L	10	11/11/2016 12:41:18 PM	R38668

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Lab ID: 1611263-002
Matrix: AQUEOUS
Received Date: 11/4/2016 2:05:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	11/11/2016 12:41:18 PM	R38668
Dibromochloromethane	ND	0.87	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
Dibromomethane	ND	1.2	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
1,4-Dichlorobenzene	7.1	1.4	10	J	µg/L	10	11/11/2016 12:41:18 PM	R38668
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
1,1-Dichloroethane	26	1.1	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
1,1-Dichloroethene	110	1.1	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
1,2-Dichloropropane	ND	1.1	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
1,3-Dichloropropane	ND	1.6	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
2,2-Dichloropropane	ND	1.7	20		µg/L	10	11/11/2016 12:41:18 PM	R38668
1,1-Dichloropropene	ND	1.3	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
Hexachlorobutadiene	ND	2.0	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
2-Hexanone	ND	8.4	100		µg/L	10	11/11/2016 12:41:18 PM	R38668
Isopropylbenzene	73	1.0	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
4-Isopropyltoluene	5.5	1.4	10	J	µg/L	10	11/11/2016 12:41:18 PM	R38668
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	11/11/2016 12:41:18 PM	R38668
Methylene Chloride	ND	1.9	30		µg/L	10	11/11/2016 12:41:18 PM	R38668
n-Butylbenzene	27	1.6	30	J	µg/L	10	11/11/2016 12:41:18 PM	R38668
n-Propylbenzene	78	1.3	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
sec-Butylbenzene	11	1.2	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
Styrene	ND	1.1	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
tert-Butylbenzene	ND	1.2	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	11/11/2016 12:41:18 PM	R38668
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
trans-1,2-DCE	ND	4.0	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
1,1,1-Trichloroethane	8.1	0.91	10	J	µg/L	10	11/11/2016 12:41:18 PM	R38668
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
Trichloroethene (TCE)	200	1.8	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
Trichlorofluoromethane	ND	2.0	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	11/11/2016 12:41:18 PM	R38668
Vinyl chloride	ND	2.0	10		µg/L	10	11/11/2016 12:41:18 PM	R38668
Xylenes, Total	840	3.7	15		µg/L	10	11/11/2016 12:41:18 PM	R38668

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Received Date: 11/4/2016 2:05:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	87.3	0	70-130		%Rec	10	11/11/2016 12:41:18 PM	R38668
Surr: 4-Bromofluorobenzene	86.1	0	70-130		%Rec	10	11/11/2016 12:41:18 PM	R38668
Surr: Dibromofluoromethane	84.9	0	70-130		%Rec	10	11/11/2016 12:41:18 PM	R38668
Surr: Toluene-d8	102	0	70-130		%Rec	10	11/11/2016 12:41:18 PM	R38668

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR MKTF

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B38985**	RunNo: **38985**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1219566** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B38985**	RunNo: **38985**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1219567** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.1	85	115			
Cadmium	0.48	0.0020	0.5000	0	95.4	85	115			
Calcium	48	1.0	50.00	0	95.2	85	115			
Chromium	0.47	0.0060	0.5000	0	93.9	85	115			
Copper	0.47	0.0060	0.5000	0	95.0	85	115			
Iron	0.46	0.020	0.5000	0	91.1	85	115			
Magnesium	49	1.0	50.00	0	98.1	85	115			
Manganese	0.46	0.0020	0.5000	0	92.3	85	115			
Potassium	50	1.0	50.00	0	99.6	85	115			
Silver	0.099	0.0050	0.1000	0	99.4	85	115			
Sodium	49	1.0	50.00	0	98.6	85	115			
Zinc	0.46	0.010	0.5000	0	92.8	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B38985**	RunNo: **38985**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1219568** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0019	0.0020	0.002000	0	94.0	50	150			J
Cadmium	0.0020	0.0020	0.002000	0	103	50	150			
Calcium	0.47	1.0	0.5000	0	93.7	50	150			J
Chromium	0.0059	0.0060	0.006000	0	97.8	50	150			J

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR MKTF

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B38985**	RunNo: **38985**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1219568** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0074	0.0060	0.006000	0	124	50	150			
Iron	0.019	0.020	0.02000	0	96.6	50	150			J
Magnesium	0.50	1.0	0.5000	0	99.5	50	150			J
Manganese	0.0021	0.0020	0.002000	0	104	50	150			
Potassium	0.61	1.0	0.5000	0	123	50	150			J
Silver	0.0049	0.0050	0.005000	0	98.8	50	150			J
Sodium	0.49	1.0	0.5000	0	97.6	50	150			J
Zinc	0.0052	0.010	0.005000	0	104	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR MKTF

Sample ID **MB-28751**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **28751**	RunNo: **38846**
Prep Date: **11/18/2016**	Analysis Date: **11/19/2016**	SeqNo: **1214021** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-28751**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **28751**	RunNo: **38846**
Prep Date: **11/18/2016**	Analysis Date: **11/19/2016**	SeqNo: **1214022** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.5	85	115			
Cadmium	0.48	0.0020	0.5000	0	95.2	85	115			
Chromium	0.47	0.0060	0.5000	0	94.4	85	115			
Copper	0.47	0.0060	0.5000	0	94.5	85	115			
Iron	0.47	0.020	0.5000	0	94.2	85	115			
Manganese	0.47	0.0020	0.5000	0	93.1	85	115			
Silver	0.098	0.0050	0.1000	0	97.6	85	115			
Zinc	0.46	0.010	0.5000	0	93.0	85	115			

Sample ID **LLLCS-28751**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **28751**	RunNo: **38846**
Prep Date: **11/18/2016**	Analysis Date: **11/19/2016**	SeqNo: **1214023** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	103	50	150			
Cadmium	0.0020	0.0020	0.002000	0	101	50	150			
Chromium	0.0058	0.0060	0.006000	0	96.8	50	150			J
Copper	0.0054	0.0060	0.006000	0	90.0	50	150			J
Iron	0.023	0.020	0.02000	0	117	50	150			
Manganese	0.0021	0.0020	0.002000	0	105	50	150			
Silver	0.0050	0.0050	0.005000	0	99.2	50	150			J
Zinc	0.0055	0.010	0.005000	0	111	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR MKTF

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B38851**	RunNo: **38851**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1214206** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	94.8	85	115			
Lead	0.012	0.00050	0.01250	0	92.8	85	115			
Selenium	0.024	0.0010	0.02500	0	96.6	85	115			
Uranium	0.012	0.00050	0.01250	0	93.0	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B38851**	RunNo: **38851**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1214208** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00098	0.0010	0.001000	0	97.6	50	150			J
Lead	0.00047	0.00050	0.0005000	0	93.7	50	150			J
Selenium	0.00098	0.0010	0.001000	0	97.5	50	150			J
Uranium	0.00047	0.00050	0.0005000	0	94.2	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B38851**	RunNo: **38851**
Prep Date:	Analysis Date: **11/18/2016**	SeqNo: **1214210** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **1611375-002MSLL**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C38934**	RunNo: **38934**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1217191** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.11	0.0025	0.06250	0.04376	112	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C38934**	RunNo: **38934**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1217205** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.012	0.00050	0.01250	0	99.3	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR MKTF

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C38934**	RunNo: **38934**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1217208** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.0010	0.0010	0.001000	0	99.5	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	97.5	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C38934**	RunNo: **38934**
Prep Date:	Analysis Date: **11/22/2016**	SeqNo: **1217211** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR MKTF

Sample ID	**MB-28751**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**28751**	RunNo:	**38823**					
Prep Date:	**11/18/2016**	Analysis Date:	**11/18/2016**	SeqNo:	**1213065**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-28751**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**28751**	RunNo:	**38823**					
Prep Date:	**11/18/2016**	Analysis Date:	**11/18/2016**	SeqNo:	**1213066**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	98.0	85	115			
Lead	0.012	0.00050	0.01250	0	99.0	85	115			
Selenium	0.024	0.0010	0.02500	0	97.9	85	115			
Uranium	0.012	0.00050	0.01250	0	98.0	85	115			

Sample ID	**MSLLLCS-28751**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**28751**	RunNo:	**38823**					
Prep Date:	**11/18/2016**	Analysis Date:	**11/18/2016**	SeqNo:	**1213067**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00096	0.0010	0.001000	0	95.7	50	150			J
Lead	0.00048	0.00050	0.0005000	0	96.1	50	150			J
Selenium	0.00093	0.0010	0.001000	0	93.4	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	97.6	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR MKTF

Sample ID	**MB-28761**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**28761**	RunNo:	**38840**					
Prep Date:	**11/18/2016**	Analysis Date:	**11/18/2016**	SeqNo:	**1213746**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-28761**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**28761**	RunNo:	**38840**					
Prep Date:	**11/18/2016**	Analysis Date:	**11/18/2016**	SeqNo:	**1213747**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.0	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR MKTF

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R38549**	RunNo: **38549**
Prep Date:	Analysis Date: **11/8/2016**	SeqNo: **1204344** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R38549**	RunNo: **38549**
Prep Date:	Analysis Date: **11/8/2016**	SeqNo: **1204345** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	99.7	90	110			
Chloride	4.7	0.50	5.000	0	93.7	90	110			
Bromide	2.4	0.10	2.500	0	96.2	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.3	90	110			
Sulfate	9.7	0.50	10.00	0	97.4	90	110			

Sample ID **1611263-001EMS**	SampType: **ms**	TestCode: **EPA Method 300.0: Anions**
Client ID: **MKTF-35**	Batch ID: **R38549**	RunNo: **38549**
Prep Date:	Analysis Date: **11/8/2016**	SeqNo: **1204347** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.3	0.10	0.5000	0.8180	91.3	74.5	121			
Bromide	2.6	0.10	2.500	0.2796	93.8	74.6	115			

Sample ID **1611263-001EMSD**	SampType: **msd**	TestCode: **EPA Method 300.0: Anions**
Client ID: **MKTF-35**	Batch ID: **R38549**	RunNo: **38549**
Prep Date:	Analysis Date: **11/8/2016**	SeqNo: **1204348** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.3	0.10	0.5000	0.8180	96.1	74.5	121	1.85	20	
Bromide	2.7	0.10	2.500	0.2796	97.2	74.6	115	3.17	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R38550**	RunNo: **38550**
Prep Date:	Analysis Date: **11/8/2016**	SeqNo: **1204438** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR MKTF

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R38550**	RunNo: **38550**
Prep Date:	Analysis Date: **11/8/2016**	SeqNo: **1204439** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.4	0.20	3.500	0	98.4	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR MKTF

Sample ID	**MB-28587**	SampType:	**MBLK**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**PBW**	Batch ID:	**28587**	RunNo:	**38602**					
Prep Date:	**11/10/2016**	Analysis Date:	**11/10/2016**	SeqNo:	**1205730**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID	**LCS-28587**	SampType:	**LCS**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**LCSW**	Batch ID:	**28587**	RunNo:	**38602**					
Prep Date:	**11/10/2016**	Analysis Date:	**11/10/2016**	SeqNo:	**1205733**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.097	0.010	0.1000	0	97.4	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR MKTF

Sample ID **LCS-28543**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **28543**	RunNo: **38562**
Prep Date: **11/8/2016**	Analysis Date: **11/9/2016**	SeqNo: **1204865** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.7	1.0	5.000	0	94.0	63.2	155			
Surr: DNOP	0.52		0.5000		104	77.1	144			

Sample ID **MB-28543**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **28543**	RunNo: **38562**
Prep Date: **11/8/2016**	Analysis Date: **11/9/2016**	SeqNo: **1204866** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		101	77.1	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR MKTF

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G38599**	RunNo: **38599**
Prep Date:	Analysis Date: **11/10/2016**	SeqNo: **1206149** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		89.5	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G38599**	RunNo: **38599**
Prep Date:	Analysis Date: **11/10/2016**	SeqNo: **1206150** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	92.4	80	120			
Surr: BFB	19		20.00		94.8	66.4	120			

Sample ID **1611263-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-35**	Batch ID: **G38599**	RunNo: **38599**
Prep Date:	Analysis Date: **11/10/2016**	SeqNo: **1206198** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	7.0	0.50	5.000	1.746	105	64.8	129			
Surr: BFB	200		200.0		101	66.4	120			

Sample ID **1611263-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **MKTF-35**	Batch ID: **G38599**	RunNo: **38599**
Prep Date:	Analysis Date: **11/10/2016**	SeqNo: **1206199** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	6.7	0.50	5.000	1.746	98.8	64.8	129	4.30	20	
Surr: BFB	200		200.0		97.5	66.4	120	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR MKTF

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R38668**	RunNo: **38668**
Prep Date:	Analysis Date: **11/11/2016**	SeqNo: **1207640** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	106	70	130			
Toluene	21	1.0	20.00	0	104	70	130			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	23	1.0	20.00	0	113	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	93.9	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.1	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		91.6	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38668**	RunNo: **38668**
Prep Date:	Analysis Date: **11/11/2016**	SeqNo: **1207642** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**
13-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th QTR MKTF

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38668**	RunNo: **38668**
Prep Date:	Analysis Date: **11/11/2016**	SeqNo: **1207642** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR MKTF

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38668**	RunNo: **38668**
Prep Date:	Analysis Date: **11/11/2016**	SeqNo: **1207642** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.4	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.7	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **1611263-002ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-37**	Batch ID: **R38668**	RunNo: **38668**
Prep Date:	Analysis Date: **11/11/2016**	SeqNo: **1207648** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1100	10	200.0	958.3	88.3	70	130			E
Toluene	210	10	200.0	11.86	99.9	70	130			
Chlorobenzene	190	10	200.0	0	94.8	70	130			
1,1-Dichloroethene	290	10	200.0	109.8	88.3	70	130			
Trichloroethene (TCE)	350	10	200.0	196.6	76.2	70	130			
Surr: 1,2-Dichloroethane-d4	85		100.0		85.5	70	130			
Surr: 4-Bromofluorobenzene	82		100.0		82.1	70	130			
Surr: Dibromofluoromethane	85		100.0		85.0	70	130			
Surr: Toluene-d8	100		100.0		99.5	70	130			

Sample ID **1611263-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-37**	Batch ID: **R38668**	RunNo: **38668**
Prep Date:	Analysis Date: **11/11/2016**	SeqNo: **1207649** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1100	10	200.0	958.3	57.8	70	130	5.54	20	ES
Toluene	210	10	200.0	11.86	97.0	70	130	2.74	20	
Chlorobenzene	190	10	200.0	0	94.9	70	130	0.0854	20	
1,1-Dichloroethene	270	10	200.0	109.8	81.2	70	130	5.10	20	
Trichloroethene (TCE)	330	10	200.0	196.6	65.1	70	130	6.56	20	S
Surr: 1,2-Dichloroethane-d4	87		100.0		86.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	83		100.0		83.4	70	130	0	0	
Surr: Dibromofluoromethane	80		100.0		80.2	70	130	0	0	
Surr: Toluene-d8	100		100.0		102	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR MKTF

Sample ID **lcs-28498**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **28498**	RunNo: **38590**
Prep Date: **11/7/2016**	Analysis Date: **11/9/2016**	SeqNo: **1205303** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	66	10	100.0	0	65.8	42.9	100			
4-Chloro-3-methylphenol	160	10	200.0	0	81.4	36.2	110			
2-Chlorophenol	140	10	200.0	0	72.3	33.4	97.8			
1,4-Dichlorobenzene	53	10	100.0	0	52.9	32.8	79.3			
2,4-Dinitrotoluene	63	10	100.0	0	62.8	34.9	107			
N-Nitrosodi-n-propylamine	71	10	100.0	0	71.1	30.7	111			
4-Nitrophenol	100	10	200.0	0	50.6	15	91.9			
Pentachlorophenol	110	20	200.0	0	56.9	33.3	93.5			
Phenol	110	10	200.0	0	57.2	20.9	86.4			
Pyrene	68	10	100.0	0	68.2	45.6	111			
1,2,4-Trichlorobenzene	63	10	100.0	0	62.8	38.7	88.2			
Surr: 2-Fluorophenol	120		200.0		61.2	15	98.1			
Surr: Phenol-d5	110		200.0		57.2	15	80.7			
Surr: 2,4,6-Tribromophenol	130		200.0		65.7	15	112			
Surr: Nitrobenzene-d5	71		100.0		71.2	27.2	90.7			
Surr: 2-Fluorobiphenyl	64		100.0		64.5	23.3	85.6			
Surr: 4-Terphenyl-d14	60		100.0		59.5	27.6	107			

Sample ID **lcsd-28498**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **28498**	RunNo: **38590**
Prep Date: **11/7/2016**	Analysis Date: **11/9/2016**	SeqNo: **1205304** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	65	10	100.0	0	65.2	42.9	100	0.886	0	
4-Chloro-3-methylphenol	140	10	200.0	0	71.7	36.2	110	12.7	0	
2-Chlorophenol	130	10	200.0	0	63.8	33.4	97.8	12.6	0	
1,4-Dichlorobenzene	55	10	100.0	0	54.9	32.8	79.3	3.60	0	
2,4-Dinitrotoluene	61	10	100.0	0	61.1	34.9	107	2.68	0	
N-Nitrosodi-n-propylamine	72	10	100.0	0	72.2	30.7	111	1.51	0	
4-Nitrophenol	93	10	200.0	0	46.5	15	91.9	8.57	0	
Pentachlorophenol	110	20	200.0	0	55.2	33.3	93.5	3.10	0	
Phenol	100	10	200.0	0	52.4	20.9	86.4	8.78	0	
Pyrene	65	10	100.0	0	64.7	45.6	111	5.30	0	
1,2,4-Trichlorobenzene	63	10	100.0	0	62.6	38.7	88.2	0.319	0	
Surr: 2-Fluorophenol	110		200.0		53.1	15	98.1	0	0	
Surr: Phenol-d5	110		200.0		53.4	15	80.7	0	0	
Surr: 2,4,6-Tribromophenol	130		200.0		65.1	15	112	0	0	
Surr: Nitrobenzene-d5	67		100.0		66.8	27.2	90.7	0	0	
Surr: 2-Fluorobiphenyl	60		100.0		59.5	23.3	85.6	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR MKTF

Sample ID **lcsd-28498**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **28498**	RunNo: **38590**
Prep Date: **11/7/2016**	Analysis Date: **11/9/2016**	SeqNo: **1205304** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	57		100.0		57.5	27.6	107	0	0	

Sample ID **mb-28498**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28498**	RunNo: **38590**
Prep Date: **11/7/2016**	Analysis Date: **11/9/2016**	SeqNo: **1205305** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	10	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	7.1	10								J
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	3.0	10								J
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	8.2	10								J
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**
13-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th QTR MKTF

Sample ID **mb-28498**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28498**	RunNo: **38590**
Prep Date: **11/7/2016**	Analysis Date: **11/9/2016**	SeqNo: **1205305** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR MKTF

Sample ID **mb-28498**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28498**	RunNo: **38590**
Prep Date: **11/7/2016**	Analysis Date: **11/9/2016**	SeqNo: **1205305** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	100		200.0		50.0	15	98.1			
Surr: Phenol-d5	87		200.0		43.7	15	80.7			
Surr: 2,4,6-Tribromophenol	160		200.0		80.8	15	112			
Surr: Nitrobenzene-d5	68		100.0		68.5	27.2	90.7			
Surr: 2-Fluorobiphenyl	65		100.0		65.3	23.3	85.6			
Surr: 4-Terphenyl-d14	72		100.0		71.9	27.6	107			

Sample ID **lcs-28584**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **28584**	RunNo: **38737**
Prep Date: **11/10/2016**	Analysis Date: **11/15/2016**	SeqNo: **1210297** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	76	10	100.0	0	75.5	42.9	100			
4-Chloro-3-methylphenol	170	10	200.0	0	86.0	36.2	110			
2-Chlorophenol	140	10	200.0	0	71.8	33.4	97.8			
1,4-Dichlorobenzene	61	10	100.0	0	60.9	32.8	79.3			
2,4-Dinitrotoluene	71	10	100.0	0	70.8	34.9	107			
N-Nitrosodi-n-propylamine	74	10	100.0	0	73.5	30.7	111			
4-Nitrophenol	120	10	200.0	0	61.3	15	91.9			
Pentachlorophenol	130	20	200.0	0	64.8	33.3	93.5			
Phenol	120	10	200.0	0	60.2	20.9	86.4			
Pyrene	66	10	100.0	0	66.1	45.6	111			
1,2,4-Trichlorobenzene	73	10	100.0	0	72.8	38.7	88.2			
Surr: 2-Fluorophenol	130		200.0		66.1	15	98.1			
Surr: Phenol-d5	130		200.0		63.4	15	80.7			
Surr: 2,4,6-Tribromophenol	160		200.0		79.1	15	112			
Surr: Nitrobenzene-d5	72		100.0		71.9	27.2	90.7			
Surr: 2-Fluorobiphenyl	72		100.0		72.2	23.3	85.6			
Surr: 4-Terphenyl-d14	67		100.0		67.3	27.6	107			

Sample ID **mb-28584**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28584**	RunNo: **38737**
Prep Date: **11/10/2016**	Analysis Date: **11/15/2016**	SeqNo: **1210298** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR MKTF

Sample ID **mb-28584**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28584**	RunNo: **38737**
Prep Date: **11/10/2016**	Analysis Date: **11/15/2016**	SeqNo: **1210298** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	11	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	7.1	10								J
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	2.7	10								J
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	7.6	10								J
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611263**

13-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th QTR MKTF

Sample ID **mb-28584**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28584**	RunNo: **38737**
Prep Date: **11/10/2016**	Analysis Date: **11/15/2016**	SeqNo: **1210298** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	79		200.0		39.5	15	98.1			
Surr: Phenol-d5	61		200.0		30.4	15	80.7			
Surr: 2,4,6-Tribromophenol	110		200.0		56.8	15	112			
Surr: Nitrobenzene-d5	55		100.0		54.7	27.2	90.7			
Surr: 2-Fluorobiphenyl	45		100.0		45.2	23.3	85.6			
Surr: 4-Terphenyl-d14	52		100.0		51.9	27.6	107			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1611263** RcptNo: **1**

Received by/date: 11/04/16

Logged By: **Ashley Gallegos** **11/4/2016 2:05:00 PM**

Completed By: **Ashley Gallegos** **11/4/2016 6:21:04 PM**

Reviewed By: aJ 11/07/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 6 (<2 or >12 unless noted)

Adjusted? NO

Checked by: JC

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

Chain-of-Custody Record

Client: ESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard / [X] Level 4 (Full Validation)
Accreditation: NELAP / [ ] Other
EDD (Type) EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 4TH QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.6

HEAL No. 1611243

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)	8011 (1,2-DIBROMOMETHANE)	Air Bubbles (Y or N)
11/16	1535	WATER	MKTF-35	40 ML VOA-5	HCL	-001			✓							✓						
				40 ML VOA-3	HCL																✓	
				1 L AMBER-1	NEAT												✓					
				250 ML AMBER-1	NEAT				✓													
				500 ML PLASTIC-1	HNO_3														✓			
				125 ML PLASTIC-1	HNO_3													✓	✓			
				125 ML PLASTIC-1	H_2SO_4													✓				
				500 ML PLASTIC-1	NEAT														✓			
	1645		MKTF-37	40 ML VOA-5	HCL	-002			✓							✓						
				40 ML VOA-3	HCL																✓	
				1 L AMBER-1	NEAT												✓					
				250 ML AMBER-1	NEAT				✓													

Date: 11/16 Time: 0730 Relinquished by: [signature]
Received by: Eugene Vigil Date: 11/4/16 Time: 11 35

Date: 11/16 Time: 1405 Relinquished by: [signature]
Received by: [signature] Date: 11/4/16 Time: 1405

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard ☒ Level 4 (Full Validation)
Accreditation: NELAP ☐ Other
EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2016 4TH QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ~~☐ Yes~~ ☐ No
Sample Temperature: 1.6

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1211263
3/16	1645	WATER	MKTF-37	500 ML PLASTIC-1	HNO_3	-002
				125 ML PLASTIC-1	HNO_3	
				125 ML PLASTIC-1	H_2SO_4	
				500 ML PLASTIC-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS / ANIONS	WQCC METALS (TOTAL & DISSOLVED)		Air Bubbles (Y or N)
											✓	✓		
											✓	✓		
											✓			
												✓		

Date:	Time:	Relinquished by:	Received by:	Date	Time
4/16	0730			11/4/16	11 35
Date:	Time:	Relinquished by:	Received by:	Date	Time
4/16	14:05			11/04/16	1405

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 22, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 4th Qtr (MKTF) OrderNo.: 1611492

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 9 sample(s) on 11/8/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-17
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 7:10:00 AM
Lab ID: 1611492-001 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	1.3	0.69	1.0		mg/L	1	11/14/2016 7:35:47 PM	28621
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/14/2016 7:35:47 PM	28621
Surr: DNOP	101	0	77.1-144		%Rec	1	11/14/2016 7:35:47 PM	28621
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	4.5	0.51	1.0		mg/L	20	11/10/2016 11:11:56 PM	G38599
Surr: BFB	95.8	0	66.4-120		%Rec	20	11/10/2016 11:11:56 PM	G38599
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.77	0.050	0.10		mg/L	1	11/14/2016 9:50:13 PM	R38701
Chloride	64	1.0	10		mg/L	20	11/14/2016 10:02:38 PM	R38701
Bromide	0.49	0.044	0.10		mg/L	1	11/14/2016 9:50:13 PM	R38701
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/14/2016 9:50:13 PM	R38701
Sulfate	45	2.8	10		mg/L	20	11/14/2016 10:02:38 PM	R38701
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	11/17/2016 12:05:52 AM	A38771
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.52	0.0013	0.0020		mg/L	1	12/2/2016 1:44:12 PM	A39111
Cadmium	ND	0.00075	0.0020		mg/L	1	12/2/2016 1:44:12 PM	A39111
Calcium	100	2.5	5.0		mg/L	5	12/2/2016 1:50:11 PM	A39111
Chromium	ND	0.0018	0.0060		mg/L	1	12/2/2016 1:44:12 PM	A39111
Copper	ND	0.0040	0.0060		mg/L	1	12/2/2016 1:44:12 PM	A39111
Iron	0.21	0.020	0.020		mg/L	1	12/2/2016 1:44:12 PM	A39111
Magnesium	21	0.50	1.0		mg/L	1	12/2/2016 1:44:12 PM	A39111
Manganese	2.7	0.0016	0.010	*	mg/L	5	12/2/2016 1:50:11 PM	A39111
Potassium	0.85	0.50	1.0	J	mg/L	1	12/6/2016 4:11:33 PM	A39177
Silver	ND	0.0028	0.0050		mg/L	1	12/2/2016 1:44:12 PM	A39111
Sodium	250	5.0	10		mg/L	10	12/6/2016 6:53:01 PM	A39177
Zinc	ND	0.0028	0.010		mg/L	1	12/2/2016 1:44:12 PM	A39111
EPA METHOD 200.7: TOTAL METALS							Analyst: **TES**	
Barium	0.60	0.0040	0.010		mg/L	5	12/5/2016 8:25:51 PM	28977
Cadmium	ND	0.0015	0.0020		mg/L	1	12/5/2016 8:20:33 PM	28977
Chromium	ND	0.0027	0.0060		mg/L	1	12/5/2016 8:20:33 PM	28977
Copper	ND	0.0030	0.0060		mg/L	1	12/5/2016 8:20:33 PM	28977
Iron	1.9	0.10	0.10	*	mg/L	5	12/16/2016 3:15:10 PM	28977
Manganese	2.8	0.0014	0.010	*	mg/L	5	12/5/2016 8:25:51 PM	28977
Silver	ND	0.0015	0.0050		mg/L	1	12/5/2016 8:20:33 PM	28977
Zinc	0.0068	0.0027	0.010	J	mg/L	1	12/5/2016 8:20:33 PM	28977
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0046	0.00014	0.0010		mg/L	1	11/23/2016 4:51:29 PM	B38954

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-17
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 7:10:00 AM
Lab ID: 1611492-001 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00017	0.00050		mg/L	1	11/23/2016 4:51:29 PM	B38954
Selenium	0.0030	0.00021	0.0010		mg/L	1	11/23/2016 4:51:29 PM	B38954
Uranium	0.0069	0.000051	0.00050		mg/L	1	11/23/2016 4:51:29 PM	B38954
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0064	0.00021	0.0010		mg/L	1	12/5/2016 1:58:10 PM	28977
Lead	0.0013	0.000081	0.00050		mg/L	1	12/5/2016 1:58:10 PM	28977
Selenium	0.0034	0.00094	0.0050	J	mg/L	5	12/7/2016 11:46:32 AM	28977
Uranium	0.0077	0.00017	0.00050		mg/L	1	12/5/2016 1:58:10 PM	28977
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.00027	0.0010		mg/L	5	11/23/2016 6:36:43 PM	28845
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Acenaphthylene	ND	2.4	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Aniline	ND	2.4	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Anthracene	ND	2.5	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Azobenzene	ND	2.7	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Benzoic acid	ND	2.6	20		µg/L	1	11/15/2016 12:27:31 PM	28584
Benzyl alcohol	ND	3.0	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Bis(2-ethylhexyl)phthalate	6.9	2.6	10	J	µg/L	1	11/15/2016 12:27:31 PM	28584
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Butyl benzyl phthalate	2.7	2.5	10	J	µg/L	1	11/15/2016 12:27:31 PM	28584
Carbazole	ND	2.3	10		µg/L	1	11/15/2016 12:27:31 PM	28584
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/15/2016 12:27:31 PM	28584
4-Chloroaniline	ND	2.7	10		µg/L	1	11/15/2016 12:27:31 PM	28584
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/15/2016 12:27:31 PM	28584
2-Chlorophenol	ND	2.2	10		µg/L	1	11/15/2016 12:27:31 PM	28584
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Chrysene	ND	2.8	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Di-n-octyl phthalate	7.0	2.0	10	J	µg/L	1	11/15/2016 12:27:31 PM	28584

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-17
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 7:10:00 AM
Lab ID: 1611492-001 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Dibenzofuran	ND	2.5	10		µg/L	1	11/15/2016 12:27:31 PM	28584
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/15/2016 12:27:31 PM	28584
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/15/2016 12:27:31 PM	28584
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/15/2016 12:27:31 PM	28584
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Diethyl phthalate	ND	2.7	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/15/2016 12:27:31 PM	28584
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/15/2016 12:27:31 PM	28584
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/15/2016 12:27:31 PM	28584
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/15/2016 12:27:31 PM	28584
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/15/2016 12:27:31 PM	28584
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/15/2016 12:27:31 PM	28584
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Fluoranthene	ND	2.6	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Fluorene	3.0	2.7	10	J	µg/L	1	11/15/2016 12:27:31 PM	28584
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Hexachloroethane	ND	2.4	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Isophorone	ND	2.6	10		µg/L	1	11/15/2016 12:27:31 PM	28584
1-Methylnaphthalene	11	2.9	10		µg/L	1	11/15/2016 12:27:31 PM	28584
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/15/2016 12:27:31 PM	28584
2-Methylphenol	ND	2.5	10		µg/L	1	11/15/2016 12:27:31 PM	28584
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/15/2016 12:27:31 PM	28584
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/15/2016 12:27:31 PM	28584
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/15/2016 12:27:31 PM	28584
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Naphthalene	7.7	2.6	10	J	µg/L	1	11/15/2016 12:27:31 PM	28584
2-Nitroaniline	ND	2.8	10		µg/L	1	11/15/2016 12:27:31 PM	28584
3-Nitroaniline	ND	2.9	10		µg/L	1	11/15/2016 12:27:31 PM	28584
4-Nitroaniline	ND	2.6	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Nitrobenzene	ND	2.8	10		µg/L	1	11/15/2016 12:27:31 PM	28584
2-Nitrophenol	ND	2.4	10		µg/L	1	11/15/2016 12:27:31 PM	28584
4-Nitrophenol	ND	2.6	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Pentachlorophenol	ND	2.3	20		µg/L	1	11/15/2016 12:27:31 PM	28584
Phenanthrene	ND	2.6	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Phenol	3.5	2.0	10	J	µg/L	1	11/15/2016 12:27:31 PM	28584

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-17
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 7:10:00 AM
Lab ID: 1611492-001 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	3.1	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Pyridine	ND	2.2	10		µg/L	1	11/15/2016 12:27:31 PM	28584
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/15/2016 12:27:31 PM	28584
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/15/2016 12:27:31 PM	28584
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/15/2016 12:27:31 PM	28584
Surr: 2-Fluorophenol	24.5	0	15-98.1		%Rec	1	11/15/2016 12:27:31 PM	28584
Surr: Phenol-d5	20.2	0	15-80.7		%Rec	1	11/15/2016 12:27:31 PM	28584
Surr: 2,4,6-Tribromophenol	36.8	0	15-112		%Rec	1	11/15/2016 12:27:31 PM	28584
Surr: Nitrobenzene-d5	67.8	0	27.2-90.7		%Rec	1	11/15/2016 12:27:31 PM	28584
Surr: 2-Fluorobiphenyl	56.6	0	23.3-85.6		%Rec	1	11/15/2016 12:27:31 PM	28584
Surr: 4-Terphenyl-d14	38.1	0	27.6-107		%Rec	1	11/15/2016 12:27:31 PM	28584
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	760	4.8	50		µg/L	50	11/14/2016 10:24:51 AM	R38696
Toluene	1.9	0.59	5.0	J	µg/L	5	11/14/2016 10:53:33 AM	R38696
Ethylbenzene	390	0.56	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
Methyl tert-butyl ether (MTBE)	360	1.1	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
1,2,4-Trimethylbenzene	1.7	0.55	5.0	J	µg/L	5	11/14/2016 10:53:33 AM	R38696
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
Naphthalene	21	0.46	10		µg/L	5	11/14/2016 10:53:33 AM	R38696
1-Methylnaphthalene	10	1.0	20	J	µg/L	5	11/14/2016 10:53:33 AM	R38696
2-Methylnaphthalene	3.0	0.79	20	J	µg/L	5	11/14/2016 10:53:33 AM	R38696
Acetone	ND	25	50		µg/L	5	11/14/2016 10:53:33 AM	R38696
Bromobenzene	ND	0.49	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
Bromodichloromethane	ND	0.70	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
Bromoform	ND	0.51	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
Bromomethane	ND	3.9	15		µg/L	5	11/14/2016 10:53:33 AM	R38696
2-Butanone	ND	3.7	50		µg/L	5	11/14/2016 10:53:33 AM	R38696
Carbon disulfide	ND	3.0	50		µg/L	5	11/14/2016 10:53:33 AM	R38696
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
Chlorobenzene	ND	0.57	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
Chloroethane	ND	0.96	10		µg/L	5	11/14/2016 10:53:33 AM	R38696
Chloroform	ND	0.44	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
Chloromethane	ND	1.1	15		µg/L	5	11/14/2016 10:53:33 AM	R38696
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-17
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 7:10:00 AM
Lab ID: 1611492-001 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	11/14/2016 10:53:33 AM	R38696
Dibromochloromethane	ND	0.43	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
Dibromomethane	ND	0.60	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
2,2-Dichloropropane	ND	0.83	10		µg/L	5	11/14/2016 10:53:33 AM	R38696
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
2-Hexanone	ND	4.2	50		µg/L	5	11/14/2016 10:53:33 AM	R38696
Isopropylbenzene	20	0.52	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
4-Isopropyltoluene	2.3	0.70	5.0	J	µg/L	5	11/14/2016 10:53:33 AM	R38696
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	11/14/2016 10:53:33 AM	R38696
Methylene Chloride	ND	0.94	15		µg/L	5	11/14/2016 10:53:33 AM	R38696
n-Butylbenzene	2.7	0.80	15	J	µg/L	5	11/14/2016 10:53:33 AM	R38696
n-Propylbenzene	32	0.66	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
sec-Butylbenzene	3.5	0.62	5.0	J	µg/L	5	11/14/2016 10:53:33 AM	R38696
Styrene	ND	0.55	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	11/14/2016 10:53:33 AM	R38696
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	11/14/2016 10:53:33 AM	R38696
Vinyl chloride	ND	0.98	5.0		µg/L	5	11/14/2016 10:53:33 AM	R38696
Xylenes, Total	4.3	1.8	7.5	J	µg/L	5	11/14/2016 10:53:33 AM	R38696
Surr: 1,2-Dichloroethane-d4	94.6	0	70-130		%Rec	5	11/14/2016 10:53:33 AM	R38696

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-17
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 7:10:00 AM
Lab ID: 1611492-001 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 4-Bromofluorobenzene	94.2	0	70-130		%Rec	5	11/14/2016 10:53:33 AM	R38696
Surr: Dibromofluoromethane	97.7	0	70-130		%Rec	5	11/14/2016 10:53:33 AM	R38696
Surr: Toluene-d8	101	0	70-130		%Rec	5	11/14/2016 10:53:33 AM	R38696

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-19
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 7:45:00 AM
Lab ID: 1611492-002 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	6.7	0.69	1.0		mg/L	1	11/14/2016 8:56:43 PM	28621
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/14/2016 8:56:43 PM	28621
Surr: DNOP	100	0	77.1-144		%Rec	1	11/14/2016 8:56:43 PM	28621
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	26	1.3	2.5		mg/L	50	11/10/2016 11:36:16 PM	G38599
Surr: BFB	91.6	0	66.4-120		%Rec	50	11/10/2016 11:36:16 PM	G38599
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.28	0.050	0.10		mg/L	1	11/14/2016 10:39:53 PM	R38701
Chloride	110	1.0	10		mg/L	20	11/14/2016 10:52:17 PM	R38701
Bromide	0.55	0.044	0.10		mg/L	1	11/14/2016 10:39:53 PM	R38701
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/14/2016 10:39:53 PM	R38701
Sulfate	0.89	0.14	0.50		mg/L	1	11/14/2016 10:39:53 PM	R38701
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	11/17/2016 12:18:16 AM	A38771
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	1.6	0.013	0.020		mg/L	10	12/6/2016 4:19:10 PM	A39177
Cadmium	ND	0.00075	0.0020		mg/L	1	12/5/2016 7:12:41 PM	A39164
Calcium	150	5.0	10		mg/L	10	12/6/2016 4:19:10 PM	A39177
Chromium	ND	0.0018	0.0060		mg/L	1	12/5/2016 7:12:41 PM	A39164
Copper	ND	0.0040	0.0060		mg/L	1	12/5/2016 7:12:41 PM	A39164
Iron	8.5	0.20	0.20	*	mg/L	10	12/6/2016 4:19:10 PM	A39177
Magnesium	29	0.50	1.0		mg/L	1	12/6/2016 4:17:29 PM	A39177
Manganese	2.2	0.0032	0.020	*	mg/L	10	12/6/2016 4:19:10 PM	A39177
Potassium	1.3	0.50	1.0		mg/L	1	12/6/2016 4:17:29 PM	A39177
Silver	ND	0.0028	0.0050		mg/L	1	12/5/2016 7:12:41 PM	A39164
Sodium	290	5.0	10		mg/L	10	12/6/2016 4:19:10 PM	A39177
Zinc	0.0091	0.0028	0.010	J	mg/L	1	12/5/2016 7:12:41 PM	A39164
EPA METHOD 200.7: TOTAL METALS							Analyst: **TES**	
Barium	2.2	0.0040	0.010	*	mg/L	5	12/5/2016 8:44:39 PM	28977
Cadmium	ND	0.0015	0.0020		mg/L	1	12/5/2016 8:31:50 PM	28977
Chromium	0.0088	0.0027	0.0060		mg/L	1	12/5/2016 8:31:50 PM	28977
Copper	0.015	0.0030	0.0060		mg/L	1	12/5/2016 8:31:50 PM	28977
Iron	33	1.0	1.0	*	mg/L	50	12/6/2016 6:54:56 PM	28977
Manganese	2.6	0.0014	0.010	*	mg/L	5	12/5/2016 8:44:39 PM	28977
Silver	ND	0.0015	0.0050		mg/L	1	12/6/2016 3:12:07 PM	28977
Zinc	0.070	0.0027	0.010		mg/L	1	12/5/2016 8:31:50 PM	28977
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.011	0.00069	0.0050	*	mg/L	5	11/28/2016 3:23:46 PM	B39007

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Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 7:45:00 AM
Lab ID: 1611492-002
Matrix: AQUEOUS
Received Date: 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	0.0023	0.00017	0.00050		mg/L	1	11/23/2016 4:56:38 PM	B38954
Selenium	0.0075	0.0042	0.020	J	mg/L	20	11/28/2016 3:26:49 PM	B39007
Uranium	0.0016	0.000051	0.00050		mg/L	1	11/23/2016 4:56:38 PM	B38954
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.013	0.0011	0.0050	*	mg/L	5	12/7/2016 12:29:45 PM	28977
Lead	0.033	0.00041	0.0025	*	mg/L	5	12/7/2016 12:29:45 PM	28977
Selenium	0.0087	0.0037	0.020	J	mg/L	20	12/7/2016 12:34:53 PM	28977
Uranium	0.0059	0.00017	0.00050		mg/L	1	12/5/2016 2:01:11 PM	28977
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/23/2016 6:18:13 PM	28845
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	5.0	2.6	10	J	µg/L	1	11/15/2016 1:52:14 PM	28584
Acenaphthylene	ND	2.4	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Aniline	ND	2.4	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Anthracene	ND	2.5	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Azobenzene	ND	2.7	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Benzoic acid	ND	2.6	20		µg/L	1	11/15/2016 1:52:14 PM	28584
Benzyl alcohol	ND	3.0	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Bis(2-ethylhexyl)phthalate	7.3	2.6	10	J	µg/L	1	11/15/2016 1:52:14 PM	28584
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Carbazole	6.0	2.3	10	J	µg/L	1	11/15/2016 1:52:14 PM	28584
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/15/2016 1:52:14 PM	28584
4-Chloroaniline	ND	2.7	10		µg/L	1	11/15/2016 1:52:14 PM	28584
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/15/2016 1:52:14 PM	28584
2-Chlorophenol	ND	2.2	10		µg/L	1	11/15/2016 1:52:14 PM	28584
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Chrysene	ND	2.8	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Di-n-octyl phthalate	8.0	2.0	10	J	µg/L	1	11/15/2016 1:52:14 PM	28584

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Qualifiers:

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-19
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 7:45:00 AM
Lab ID: 1611492-002 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Dibenzofuran	ND	2.5	10		µg/L	1	11/15/2016 1:52:14 PM	28584
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/15/2016 1:52:14 PM	28584
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/15/2016 1:52:14 PM	28584
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/15/2016 1:52:14 PM	28584
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Diethyl phthalate	ND	2.7	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Dimethyl phthalate	3.5	2.4	10	J	µg/L	1	11/15/2016 1:52:14 PM	28584
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/15/2016 1:52:14 PM	28584
2,4-Dimethylphenol	5.6	3.0	10	J	µg/L	1	11/15/2016 1:52:14 PM	28584
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/15/2016 1:52:14 PM	28584
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/15/2016 1:52:14 PM	28584
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/15/2016 1:52:14 PM	28584
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Fluoranthene	ND	2.6	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Fluorene	7.3	2.7	10	J	µg/L	1	11/15/2016 1:52:14 PM	28584
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Hexachloroethane	ND	2.4	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Isophorone	ND	2.6	10		µg/L	1	11/15/2016 1:52:14 PM	28584
1-Methylnaphthalene	120	2.9	10		µg/L	1	11/15/2016 1:52:14 PM	28584
2-Methylnaphthalene	180	2.9	10		µg/L	1	11/15/2016 1:52:14 PM	28584
2-Methylphenol	ND	2.5	10		µg/L	1	11/15/2016 1:52:14 PM	28584
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/15/2016 1:52:14 PM	28584
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/15/2016 1:52:14 PM	28584
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/15/2016 1:52:14 PM	28584
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Naphthalene	270	5.2	20		µg/L	2	11/16/2016 5:09:55 PM	28584
2-Nitroaniline	ND	2.8	10		µg/L	1	11/15/2016 1:52:14 PM	28584
3-Nitroaniline	ND	2.9	10		µg/L	1	11/15/2016 1:52:14 PM	28584
4-Nitroaniline	ND	2.6	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Nitrobenzene	ND	2.8	10		µg/L	1	11/15/2016 1:52:14 PM	28584
2-Nitrophenol	ND	2.4	10		µg/L	1	11/15/2016 1:52:14 PM	28584
4-Nitrophenol	ND	2.6	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Pentachlorophenol	ND	2.3	20		µg/L	1	11/15/2016 1:52:14 PM	28584
Phenanthrene	5.5	2.6	10	J	µg/L	1	11/15/2016 1:52:14 PM	28584
Phenol	6.6	2.0	10	J	µg/L	1	11/15/2016 1:52:14 PM	28584

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-19
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 7:45:00 AM
Lab ID: 1611492-002 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	4.4	3.1	10	J	µg/L	1	11/15/2016 1:52:14 PM	28584
Pyridine	ND	2.2	10		µg/L	1	11/15/2016 1:52:14 PM	28584
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/15/2016 1:52:14 PM	28584
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/15/2016 1:52:14 PM	28584
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/15/2016 1:52:14 PM	28584
Surr: 2-Fluorophenol	20.1	0	15-98.1		%Rec	1	11/15/2016 1:52:14 PM	28584
Surr: Phenol-d5	25.0	0	15-80.7		%Rec	1	11/15/2016 1:52:14 PM	28584
Surr: 2,4,6-Tribromophenol	48.2	0	15-112		%Rec	1	11/15/2016 1:52:14 PM	28584
Surr: Nitrobenzene-d5	64.0	0	27.2-90.7		%Rec	1	11/15/2016 1:52:14 PM	28584
Surr: 2-Fluorobiphenyl	54.1	0	23.3-85.6		%Rec	1	11/15/2016 1:52:14 PM	28584
Surr: 4-Terphenyl-d14	34.7	0	27.6-107		%Rec	1	11/15/2016 1:52:14 PM	28584
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	1300	1.9	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
Toluene	6.8	2.4	20	J	µg/L	20	11/14/2016 1:46:53 PM	R38696
Ethylbenzene	700	2.2	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
Methyl tert-butyl ether (MTBE)	10000	42	200		µg/L	200	11/14/2016 1:17:49 PM	R38696
1,2,4-Trimethylbenzene	630	2.2	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
1,3,5-Trimethylbenzene	110	2.3	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
1,2-Dichloroethane (EDC)	7.0	2.3	20	J	µg/L	20	11/14/2016 1:46:53 PM	R38696
1,2-Dibromoethane (EDB)	ND	2.2	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
Naphthalene	510	1.9	40		µg/L	20	11/14/2016 1:46:53 PM	R38696
1-Methylnaphthalene	220	4.1	80		µg/L	20	11/14/2016 1:46:53 PM	R38696
2-Methylnaphthalene	260	3.2	80		µg/L	20	11/14/2016 1:46:53 PM	R38696
Acetone	ND	98	200		µg/L	20	11/14/2016 1:46:53 PM	R38696
Bromobenzene	ND	2.0	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
Bromodichloromethane	ND	2.8	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
Bromoform	ND	2.0	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
Bromomethane	ND	16	60		µg/L	20	11/14/2016 1:46:53 PM	R38696
2-Butanone	ND	15	200		µg/L	20	11/14/2016 1:46:53 PM	R38696
Carbon disulfide	ND	12	200		µg/L	20	11/14/2016 1:46:53 PM	R38696
Carbon Tetrachloride	ND	2.2	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
Chlorobenzene	ND	2.3	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
Chloroethane	ND	3.8	40		µg/L	20	11/14/2016 1:46:53 PM	R38696
Chloroform	ND	1.8	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
Chloromethane	ND	4.3	60		µg/L	20	11/14/2016 1:46:53 PM	R38696
2-Chlorotoluene	ND	8.0	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
4-Chlorotoluene	ND	2.6	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
cis-1,2-DCE	ND	2.5	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
cis-1,3-Dichloropropene	ND	2.1	20		µg/L	20	11/14/2016 1:46:53 PM	R38696

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-19
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 7:45:00 AM
Lab ID: 1611492-002 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,2-Dibromo-3-chloropropane	ND	4.7	40		µg/L	20	11/14/2016 1:46:53 PM	R38696
Dibromochloromethane	ND	1.7	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
Dibromomethane	ND	2.4	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
1,2-Dichlorobenzene	ND	8.0	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
1,3-Dichlorobenzene	ND	2.9	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
1,4-Dichlorobenzene	ND	2.9	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
Dichlorodifluoromethane	ND	7.1	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
1,1-Dichloroethane	ND	2.2	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
1,1-Dichloroethene	ND	2.1	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
1,2-Dichloropropane	ND	2.2	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
1,3-Dichloropropane	ND	3.1	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
2,2-Dichloropropane	ND	3.3	40		µg/L	20	11/14/2016 1:46:53 PM	R38696
1,1-Dichloropropene	ND	2.7	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
Hexachlorobutadiene	ND	4.0	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
2-Hexanone	ND	17	200		µg/L	20	11/14/2016 1:46:53 PM	R38696
Isopropylbenzene	32	2.1	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
4-Isopropyltoluene	6.2	2.8	20	J	µg/L	20	11/14/2016 1:46:53 PM	R38696
4-Methyl-2-pentanone	ND	8.6	200		µg/L	20	11/14/2016 1:46:53 PM	R38696
Methylene Chloride	ND	3.7	60		µg/L	20	11/14/2016 1:46:53 PM	R38696
n-Butylbenzene	14	3.2	60	J	µg/L	20	11/14/2016 1:46:53 PM	R38696
n-Propylbenzene	84	2.6	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
sec-Butylbenzene	8.8	2.5	20	J	µg/L	20	11/14/2016 1:46:53 PM	R38696
Styrene	ND	2.2	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
tert-Butylbenzene	ND	2.3	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
1,1,1,2-Tetrachloroethane	ND	2.2	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
1,1,2,2-Tetrachloroethane	ND	2.6	40		µg/L	20	11/14/2016 1:46:53 PM	R38696
Tetrachloroethene (PCE)	ND	3.0	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
trans-1,2-DCE	ND	8.0	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
trans-1,3-Dichloropropene	ND	2.1	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
1,2,3-Trichlorobenzene	ND	2.3	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
1,2,4-Trichlorobenzene	ND	2.7	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
1,1,1-Trichloroethane	ND	1.8	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
1,1,2-Trichloroethane	ND	2.5	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
Trichloroethene (TCE)	ND	3.5	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
Trichlorofluoromethane	ND	4.1	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
1,2,3-Trichloropropane	ND	4.0	40		µg/L	20	11/14/2016 1:46:53 PM	R38696
Vinyl chloride	ND	3.9	20		µg/L	20	11/14/2016 1:46:53 PM	R38696
Xylenes, Total	1000	7.3	30		µg/L	20	11/14/2016 1:46:53 PM	R38696
Surr: 1,2-Dichloroethane-d4	95.5	0	70-130		%Rec	20	11/14/2016 1:46:53 PM	R38696

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-19
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 7:45:00 AM
Lab ID: 1611492-002
Matrix: AQUEOUS
Received Date: 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 4-Bromofluorobenzene	84.4	0	70-130		%Rec	20	11/14/2016 1:46:53 PM	R38696
Surr: Dibromofluoromethane	109	0	70-130		%Rec	20	11/14/2016 1:46:53 PM	R38696
Surr: Toluene-d8	99.3	0	70-130		%Rec	20	11/14/2016 1:46:53 PM	R38696

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-34
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 8:25:00 AM
Lab ID: 1611492-003 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/14/2016 9:23:47 PM	28621
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/14/2016 9:23:47 PM	28621
Surr: DNOP	105	0	77.1-144		%Rec	1	11/14/2016 9:23:47 PM	28621
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/11/2016 12:00:43 AM	G38599
Surr: BFB	87.6	0	66.4-120		%Rec	1	11/11/2016 12:00:43 AM	G38599
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.46	0.050	0.10		mg/L	1	11/14/2016 11:04:42 PM	R38701
Chloride	240	1.0	10		mg/L	20	11/14/2016 11:17:07 PM	R38701
Bromide	1.5	0.044	0.10		mg/L	1	11/14/2016 11:04:42 PM	R38701
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/14/2016 11:04:42 PM	R38701
Sulfate	180	2.8	10		mg/L	20	11/14/2016 11:17:07 PM	R38701
Nitrate+Nitrite as N	8.3	0.46	1.0		mg/L	5	11/17/2016 1:07:56 AM	A38771
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **TES**	
Barium	0.057	0.0013	0.0020		mg/L	1	12/5/2016 7:14:21 PM	A39164
Cadmium	ND	0.00075	0.0020		mg/L	1	12/5/2016 7:14:21 PM	A39164
Calcium	53	0.50	1.0		mg/L	1	12/6/2016 4:21:09 PM	A39177
Chromium	ND	0.0018	0.0060		mg/L	1	12/5/2016 7:14:21 PM	A39164
Copper	ND	0.0040	0.0060		mg/L	1	12/5/2016 7:14:21 PM	A39164
Iron	ND	0.020	0.020		mg/L	1	12/5/2016 7:14:21 PM	A39164
Magnesium	13	0.50	1.0		mg/L	1	12/6/2016 4:21:09 PM	A39177
Manganese	0.00035	0.00032	0.0020	J	mg/L	1	12/5/2016 7:14:21 PM	A39164
Potassium	1.7	0.50	1.0		mg/L	1	12/6/2016 4:21:09 PM	A39177
Silver	ND	0.0028	0.0050		mg/L	1	12/5/2016 7:14:21 PM	A39164
Sodium	390	2.5	5.0		mg/L	5	12/6/2016 4:30:47 PM	A39177
Zinc	0.0031	0.0028	0.010	J	mg/L	1	12/5/2016 7:14:21 PM	A39164
EPA METHOD 200.7: TOTAL METALS							Analyst: **TES**	
Barium	0.085	0.00079	0.0020		mg/L	1	12/5/2016 8:50:08 PM	28977
Cadmium	ND	0.0015	0.0020		mg/L	1	12/5/2016 8:50:08 PM	28977
Chromium	ND	0.0027	0.0060		mg/L	1	12/5/2016 8:50:08 PM	28977
Copper	ND	0.0030	0.0060		mg/L	1	12/5/2016 8:50:08 PM	28977
Iron	0.66	0.020	0.020	*	mg/L	1	12/5/2016 8:50:08 PM	28977
Manganese	0.017	0.00027	0.0020		mg/L	1	12/5/2016 8:50:08 PM	28977
Silver	ND	0.0015	0.0050		mg/L	1	12/5/2016 8:50:08 PM	28977
Zinc	0.0074	0.0027	0.010	J	mg/L	1	12/5/2016 8:50:08 PM	28977
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0030	0.00069	0.0050	J	mg/L	5	11/28/2016 3:29:52 PM	B39007

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Collection Date: 11/8/2016 8:25:00 AM
Lab ID: 1611492-003 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00017	0.00050		mg/L	1	11/23/2016 5:01:46 PM	B38954
Selenium	0.0077	0.0042	0.020	J	mg/L	20	11/28/2016 3:32:56 PM	B39007
Uranium	0.036	0.00026	0.0025	*	mg/L	5	11/28/2016 3:29:52 PM	B39007
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0026	0.0011	0.0050	J	mg/L	5	12/7/2016 12:40:02 PM	28977
Lead	0.00087	0.000081	0.00050		mg/L	1	12/5/2016 2:04:11 PM	28977
Selenium	0.011	0.0037	0.020	J	mg/L	20	12/7/2016 1:00:38 PM	28977
Uranium	0.038	0.00087	0.0025	*	mg/L	5	12/7/2016 12:40:02 PM	28977
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	0.00024	0.000053	0.00020		mg/L	1	11/23/2016 6:20:15 PM	28845
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Acenaphthylene	ND	2.4	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Aniline	ND	2.4	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Anthracene	ND	2.5	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Azobenzene	ND	2.7	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Benzoic acid	8.3	2.6	20	J	µg/L	1	11/15/2016 2:20:12 PM	28584
Benzyl alcohol	ND	3.0	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Bis(2-ethylhexyl)phthalate	6.4	2.6	10	J	µg/L	1	11/15/2016 2:20:12 PM	28584
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Carbazole	ND	2.3	10		µg/L	1	11/15/2016 2:20:12 PM	28584
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/15/2016 2:20:12 PM	28584
4-Chloroaniline	ND	2.7	10		µg/L	1	11/15/2016 2:20:12 PM	28584
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/15/2016 2:20:12 PM	28584
2-Chlorophenol	ND	2.2	10		µg/L	1	11/15/2016 2:20:12 PM	28584
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Chrysene	ND	2.8	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Di-n-octyl phthalate	6.7	2.0	10	J	µg/L	1	11/15/2016 2:20:12 PM	28584

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Dibenzofuran	ND	2.5	10		µg/L	1	11/15/2016 2:20:12 PM	28584
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/15/2016 2:20:12 PM	28584
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/15/2016 2:20:12 PM	28584
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/15/2016 2:20:12 PM	28584
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Diethyl phthalate	ND	2.7	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/15/2016 2:20:12 PM	28584
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/15/2016 2:20:12 PM	28584
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/15/2016 2:20:12 PM	28584
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/15/2016 2:20:12 PM	28584
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/15/2016 2:20:12 PM	28584
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/15/2016 2:20:12 PM	28584
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Fluoranthene	ND	2.6	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Fluorene	ND	2.7	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Hexachloroethane	ND	2.4	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Isophorone	ND	2.6	10		µg/L	1	11/15/2016 2:20:12 PM	28584
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/15/2016 2:20:12 PM	28584
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/15/2016 2:20:12 PM	28584
2-Methylphenol	ND	2.5	10		µg/L	1	11/15/2016 2:20:12 PM	28584
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/15/2016 2:20:12 PM	28584
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/15/2016 2:20:12 PM	28584
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/15/2016 2:20:12 PM	28584
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Naphthalene	ND	2.6	10		µg/L	1	11/15/2016 2:20:12 PM	28584
2-Nitroaniline	ND	2.8	10		µg/L	1	11/15/2016 2:20:12 PM	28584
3-Nitroaniline	ND	2.9	10		µg/L	1	11/15/2016 2:20:12 PM	28584
4-Nitroaniline	ND	2.6	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Nitrobenzene	ND	2.8	10		µg/L	1	11/15/2016 2:20:12 PM	28584
2-Nitrophenol	ND	2.4	10		µg/L	1	11/15/2016 2:20:12 PM	28584
4-Nitrophenol	ND	2.6	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Pentachlorophenol	ND	2.3	20		µg/L	1	11/15/2016 2:20:12 PM	28584
Phenanthrene	ND	2.6	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Phenol	ND	2.0	10		µg/L	1	11/15/2016 2:20:12 PM	28584

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Lab ID: 1611492-003 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	3.1	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Pyridine	ND	2.2	10		µg/L	1	11/15/2016 2:20:12 PM	28584
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/15/2016 2:20:12 PM	28584
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/15/2016 2:20:12 PM	28584
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/15/2016 2:20:12 PM	28584
Surr: 2-Fluorophenol	18.4	0	15-98.1		%Rec	1	11/15/2016 2:20:12 PM	28584
Surr: Phenol-d5	15.7	0	15-80.7		%Rec	1	11/15/2016 2:20:12 PM	28584
Surr: 2,4,6-Tribromophenol	28.0	0	15-112		%Rec	1	11/15/2016 2:20:12 PM	28584
Surr: Nitrobenzene-d5	48.8	0	27.2-90.7		%Rec	1	11/15/2016 2:20:12 PM	28584
Surr: 2-Fluorobiphenyl	46.1	0	23.3-85.6		%Rec	1	11/15/2016 2:20:12 PM	28584
Surr: 4-Terphenyl-d14	22.9	0	27.6-107	S	%Rec	1	11/15/2016 2:20:12 PM	28584
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	0.14	0.096	1.0	J	µg/L	1	11/14/2016 2:15:58 PM	R38696
Toluene	ND	0.12	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
Ethylbenzene	0.16	0.11	1.0	J	µg/L	1	11/14/2016 2:15:58 PM	R38696
Methyl tert-butyl ether (MTBE)	0.97	0.21	1.0	J	µg/L	1	11/14/2016 2:15:58 PM	R38696
1,2,4-Trimethylbenzene	0.23	0.11	1.0	J	µg/L	1	11/14/2016 2:15:58 PM	R38696
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
Naphthalene	0.40	0.093	2.0	J	µg/L	1	11/14/2016 2:15:58 PM	R38696
1-Methylnaphthalene	0.51	0.20	4.0	J	µg/L	1	11/14/2016 2:15:58 PM	R38696
2-Methylnaphthalene	0.48	0.16	4.0	J	µg/L	1	11/14/2016 2:15:58 PM	R38696
Acetone	ND	4.9	10		µg/L	1	11/14/2016 2:15:58 PM	R38696
Bromobenzene	ND	0.098	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
Bromoform	ND	0.10	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
Bromomethane	ND	0.78	3.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
2-Butanone	ND	0.74	10		µg/L	1	11/14/2016 2:15:58 PM	R38696
Carbon disulfide	ND	0.60	10		µg/L	1	11/14/2016 2:15:58 PM	R38696
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
Chloroethane	ND	0.19	2.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
Chloroform	ND	0.089	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
Chloromethane	ND	0.21	3.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
cis-1,2-DCE	0.26	0.12	1.0	J	µg/L	1	11/14/2016 2:15:58 PM	R38696
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696

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EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
Dibromomethane	ND	0.12	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
1,4-Dichlorobenzene	0.40	0.14	1.0	J	µg/L	1	11/14/2016 2:15:58 PM	R38696
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
1,1-Dichloroethene	2.8	0.11	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
2-Hexanone	ND	0.84	10		µg/L	1	11/14/2016 2:15:58 PM	R38696
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/14/2016 2:15:58 PM	R38696
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
Styrene	ND	0.11	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
Tetrachloroethene (PCE)	0.22	0.15	1.0	J	µg/L	1	11/14/2016 2:15:58 PM	R38696
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
Trichloroethene (TCE)	4.8	0.18	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/14/2016 2:15:58 PM	R38696
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/14/2016 2:15:58 PM	R38696
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	1	11/14/2016 2:15:58 PM	R38696

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-34
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 8:25:00 AM
Lab ID: 1611492-003
Matrix: AQUEOUS
Received Date: 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 4-Bromofluorobenzene	96.7	0	70-130		%Rec	1	11/14/2016 2:15:58 PM	R38696
Surr: Dibromofluoromethane	111	0	70-130		%Rec	1	11/14/2016 2:15:58 PM	R38696
Surr: Toluene-d8	99.1	0	70-130		%Rec	1	11/14/2016 2:15:58 PM	R38696

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-18
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 9:10:00 AM
Lab ID: 1611492-004 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	1.7	0.69	1.0		mg/L	1	11/14/2016 9:50:44 PM	28621
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/14/2016 9:50:44 PM	28621
Surr: DNOP	101	0	77.1-144		%Rec	1	11/14/2016 9:50:44 PM	28621
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.60	0.025	0.050		mg/L	1	11/11/2016 12:25:02 AM	G38599
Surr: BFB	110	0	66.4-120		%Rec	1	11/11/2016 12:25:02 AM	G38599
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.62	0.050	0.10		mg/L	1	11/14/2016 11:29:31 PM	R38701
Chloride	160	1.0	10		mg/L	20	11/14/2016 11:41:55 PM	R38701
Bromide	0.85	0.044	0.10		mg/L	1	11/14/2016 11:29:31 PM	R38701
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/14/2016 11:29:31 PM	R38701
Sulfate	0.23	0.14	0.50	J	mg/L	1	11/14/2016 11:29:31 PM	R38701
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	11/17/2016 1:20:20 AM	A38771
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	1.7	0.0066	0.010		mg/L	5	12/6/2016 4:34:33 PM	A39177
Cadmium	ND	0.00075	0.0020		mg/L	1	12/5/2016 7:16:18 PM	A39164
Calcium	79	0.50	1.0		mg/L	1	12/6/2016 4:32:42 PM	A39177
Chromium	ND	0.0018	0.0060		mg/L	1	12/5/2016 7:16:18 PM	A39164
Copper	ND	0.0040	0.0060		mg/L	1	12/5/2016 7:16:18 PM	A39164
Iron	0.81	0.020	0.020	*	mg/L	1	12/5/2016 7:16:18 PM	A39164
Magnesium	21	0.50	1.0		mg/L	1	12/6/2016 4:32:42 PM	A39177
Manganese	1.9	0.0016	0.010	*	mg/L	5	12/6/2016 4:34:33 PM	A39177
Potassium	0.67	0.50	1.0	J	mg/L	1	12/6/2016 4:32:42 PM	A39177
Silver	ND	0.0028	0.0050		mg/L	1	12/5/2016 7:16:18 PM	A39164
Sodium	280	2.5	5.0		mg/L	5	12/6/2016 4:34:33 PM	A39177
Zinc	ND	0.0028	0.010		mg/L	1	12/5/2016 7:16:18 PM	A39164
EPA METHOD 200.7: TOTAL METALS							Analyst: **TES**	
Barium	1.7	0.0040	0.010		mg/L	5	12/5/2016 8:55:41 PM	28977
Cadmium	ND	0.0015	0.0020		mg/L	1	12/5/2016 8:54:03 PM	28977
Chromium	ND	0.0027	0.0060		mg/L	1	12/5/2016 8:54:03 PM	28977
Copper	ND	0.0030	0.0060		mg/L	1	12/5/2016 8:54:03 PM	28977
Iron	2.2	0.10	0.10	*	mg/L	5	12/5/2016 8:55:41 PM	28977
Manganese	1.8	0.0014	0.010	*	mg/L	5	12/5/2016 8:55:41 PM	28977
Silver	ND	0.0015	0.0050		mg/L	1	12/5/2016 8:54:03 PM	28977
Zinc	ND	0.0027	0.010		mg/L	1	12/5/2016 8:54:03 PM	28977
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0025	0.00014	0.0010		mg/L	1	11/23/2016 5:17:14 PM	B38954

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-18
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 9:10:00 AM
Lab ID: 1611492-004 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00017	0.00050		mg/L	1	11/23/2016 5:17:14 PM	B38954
Selenium	0.0053	0.00021	0.0010		mg/L	1	11/23/2016 5:17:14 PM	B38954
Uranium	0.0010	0.000051	0.00050		mg/L	1	11/23/2016 5:17:14 PM	B38954
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0033	0.00021	0.0010		mg/L	1	12/5/2016 2:16:17 PM	28977
Lead	0.00041	0.000081	0.00050	J	mg/L	1	12/5/2016 2:16:17 PM	28977
Selenium	0.0059	0.0019	0.010	J	mg/L	10	12/7/2016 1:21:11 PM	28977
Uranium	0.0011	0.00017	0.00050		mg/L	1	12/5/2016 2:16:17 PM	28977
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/23/2016 6:22:16 PM	28845
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	5.6	2.6	10	J	µg/L	1	11/15/2016 2:48:05 PM	28584
Acenaphthylene	ND	2.4	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Aniline	ND	2.4	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Anthracene	ND	2.5	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Azobenzene	ND	2.7	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Benzoic acid	ND	2.6	20		µg/L	1	11/15/2016 2:48:05 PM	28584
Benzyl alcohol	ND	3.0	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Bis(2-ethylhexyl)phthalate	6.5	2.6	10	J	µg/L	1	11/15/2016 2:48:05 PM	28584
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Butyl benzyl phthalate	2.6	2.5	10	J	µg/L	1	11/15/2016 2:48:05 PM	28584
Carbazole	ND	2.3	10		µg/L	1	11/15/2016 2:48:05 PM	28584
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/15/2016 2:48:05 PM	28584
4-Chloroaniline	ND	2.7	10		µg/L	1	11/15/2016 2:48:05 PM	28584
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/15/2016 2:48:05 PM	28584
2-Chlorophenol	ND	2.2	10		µg/L	1	11/15/2016 2:48:05 PM	28584
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Chrysene	ND	2.8	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Di-n-octyl phthalate	6.9	2.0	10	J	µg/L	1	11/15/2016 2:48:05 PM	28584

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-18
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 9:10:00 AM
Lab ID: 1611492-004 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Dibenzofuran	ND	2.5	10		µg/L	1	11/15/2016 2:48:05 PM	28584
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/15/2016 2:48:05 PM	28584
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/15/2016 2:48:05 PM	28584
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/15/2016 2:48:05 PM	28584
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Diethyl phthalate	ND	2.7	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/15/2016 2:48:05 PM	28584
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/15/2016 2:48:05 PM	28584
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/15/2016 2:48:05 PM	28584
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/15/2016 2:48:05 PM	28584
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/15/2016 2:48:05 PM	28584
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/15/2016 2:48:05 PM	28584
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Fluoranthene	ND	2.6	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Fluorene	7.1	2.7	10	J	µg/L	1	11/15/2016 2:48:05 PM	28584
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Hexachloroethane	ND	2.4	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Isophorone	ND	2.6	10		µg/L	1	11/15/2016 2:48:05 PM	28584
1-Methylnaphthalene	57	2.9	10		µg/L	1	11/15/2016 2:48:05 PM	28584
2-Methylnaphthalene	20	2.9	10		µg/L	1	11/15/2016 2:48:05 PM	28584
2-Methylphenol	ND	2.5	10		µg/L	1	11/15/2016 2:48:05 PM	28584
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/15/2016 2:48:05 PM	28584
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/15/2016 2:48:05 PM	28584
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/15/2016 2:48:05 PM	28584
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Naphthalene	18	2.6	10		µg/L	1	11/15/2016 2:48:05 PM	28584
2-Nitroaniline	ND	2.8	10		µg/L	1	11/15/2016 2:48:05 PM	28584
3-Nitroaniline	ND	2.9	10		µg/L	1	11/15/2016 2:48:05 PM	28584
4-Nitroaniline	ND	2.6	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Nitrobenzene	ND	2.8	10		µg/L	1	11/15/2016 2:48:05 PM	28584
2-Nitrophenol	ND	2.4	10		µg/L	1	11/15/2016 2:48:05 PM	28584
4-Nitrophenol	ND	2.6	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Pentachlorophenol	ND	2.3	20		µg/L	1	11/15/2016 2:48:05 PM	28584
Phenanthrene	3.7	2.6	10	J	µg/L	1	11/15/2016 2:48:05 PM	28584
Phenol	ND	2.0	10		µg/L	1	11/15/2016 2:48:05 PM	28584

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-18
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 9:10:00 AM
Lab ID: 1611492-004 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	3.1	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Pyridine	ND	2.2	10		µg/L	1	11/15/2016 2:48:05 PM	28584
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/15/2016 2:48:05 PM	28584
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/15/2016 2:48:05 PM	28584
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/15/2016 2:48:05 PM	28584
Surr: 2-Fluorophenol	27.3	0	15-98.1		%Rec	1	11/15/2016 2:48:05 PM	28584
Surr: Phenol-d5	21.0	0	15-80.7		%Rec	1	11/15/2016 2:48:05 PM	28584
Surr: 2,4,6-Tribromophenol	45.0	0	15-112		%Rec	1	11/15/2016 2:48:05 PM	28584
Surr: Nitrobenzene-d5	69.7	0	27.2-90.7		%Rec	1	11/15/2016 2:48:05 PM	28584
Surr: 2-Fluorobiphenyl	54.1	0	23.3-85.6		%Rec	1	11/15/2016 2:48:05 PM	28584
Surr: 4-Terphenyl-d14	38.2	0	27.6-107		%Rec	1	11/15/2016 2:48:05 PM	28584
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	16	0.096	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
Toluene	0.30	0.12	1.0	J	µg/L	1	11/14/2016 2:45:01 PM	R38696
Ethylbenzene	14	0.11	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
Methyl tert-butyl ether (MTBE)	81	0.21	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
1,2,4-Trimethylbenzene	0.78	0.11	1.0	J	µg/L	1	11/14/2016 2:45:01 PM	R38696
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
1,2-Dichloroethane (EDC)	0.42	0.12	1.0	J	µg/L	1	11/14/2016 2:45:01 PM	R38696
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
Naphthalene	27	0.093	2.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
1-Methylnaphthalene	110	2.0	40		µg/L	10	11/15/2016 5:24:18 AM	R38696
2-Methylnaphthalene	34	0.16	4.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
Acetone	5.5	4.9	10	J	µg/L	1	11/14/2016 2:45:01 PM	R38696
Bromobenzene	ND	0.098	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
Bromoform	ND	0.10	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
Bromomethane	ND	0.78	3.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
2-Butanone	ND	0.74	10		µg/L	1	11/14/2016 2:45:01 PM	R38696
Carbon disulfide	ND	0.60	10		µg/L	1	11/14/2016 2:45:01 PM	R38696
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
Chloroethane	ND	0.19	2.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
Chloroform	ND	0.089	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
Chloromethane	ND	0.21	3.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
cis-1,2-DCE	2.9	0.12	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-18
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 9:10:00 AM
Lab ID: 1611492-004 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
Dibromomethane	ND	0.12	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
1,4-Dichlorobenzene	0.48	0.14	1.0	J	µg/L	1	11/14/2016 2:45:01 PM	R38696
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
1,1-Dichloroethene	0.60	0.11	1.0	J	µg/L	1	11/14/2016 2:45:01 PM	R38696
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
2-Hexanone	ND	0.84	10		µg/L	1	11/14/2016 2:45:01 PM	R38696
Isopropylbenzene	2.0	0.10	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
4-Isopropyltoluene	0.99	0.14	1.0	J	µg/L	1	11/14/2016 2:45:01 PM	R38696
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/14/2016 2:45:01 PM	R38696
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
n-Butylbenzene	1.3	0.16	3.0	J	µg/L	1	11/14/2016 2:45:01 PM	R38696
n-Propylbenzene	2.6	0.13	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
sec-Butylbenzene	1.5	0.12	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
Styrene	ND	0.11	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
tert-Butylbenzene	0.32	0.12	1.0	J	µg/L	1	11/14/2016 2:45:01 PM	R38696
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/14/2016 2:45:01 PM	R38696
Xylenes, Total	0.76	0.37	1.5	J	µg/L	1	11/14/2016 2:45:01 PM	R38696
Surr: 1,2-Dichloroethane-d4	94.4	0	70-130		%Rec	1	11/14/2016 2:45:01 PM	R38696

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-18
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 9:10:00 AM
Lab ID: 1611492-004
Matrix: AQUEOUS
Received Date: 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 4-Bromofluorobenzene	93.2	0	70-130		%Rec	1	11/14/2016 2:45:01 PM	R38696
Surr: Dibromofluoromethane	101	0	70-130		%Rec	1	11/14/2016 2:45:01 PM	R38696
Surr: Toluene-d8	99.2	0	70-130		%Rec	1	11/14/2016 2:45:01 PM	R38696

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-36
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 9:45:00 AM
Lab ID: 1611492-005 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	11/21/2016 1:03:19 PM	28775
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	11	0.69	1.0		mg/L	1	11/14/2016 10:17:41 PM	28621
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/14/2016 10:17:41 PM	28621
Surr: DNOP	104	0	77.1-144		%Rec	1	11/14/2016 10:17:41 PM	28621
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	40	1.3	2.5		mg/L	50	11/11/2016 9:56:33 AM	B38637
Surr: BFB	96.1	0	66.4-120		%Rec	50	11/11/2016 9:56:33 AM	B38637
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.67	0.25	0.50		mg/L	5	11/14/2016 11:54:19 PM	R38701
Chloride	130	1.0	10		mg/L	20	11/15/2016 12:06:44 AM	R38701
Bromide	0.66	0.22	0.50		mg/L	5	11/14/2016 11:54:19 PM	R38701
Phosphorus, Orthophosphate (As P)	ND	0.38	2.5	H	mg/L	5	11/14/2016 11:54:19 PM	R38701
Sulfate	ND	0.71	2.5		mg/L	5	11/14/2016 11:54:19 PM	R38701
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	11/17/2016 1:32:45 AM	A38771
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	6.0	0.066	0.10	*	mg/L	50	12/6/2016 4:39:57 PM	A39177
Cadmium	ND	0.00075	0.0020		mg/L	1	12/5/2016 7:18:09 PM	A39164
Calcium	130	2.5	5.0		mg/L	5	12/6/2016 4:38:08 PM	A39177
Chromium	ND	0.0018	0.0060		mg/L	1	12/5/2016 7:18:09 PM	A39164
Copper	ND	0.0040	0.0060		mg/L	1	12/5/2016 7:18:09 PM	A39164
Iron	13	1.0	1.0	*	mg/L	50	12/6/2016 4:39:57 PM	A39177
Magnesium	38	0.50	1.0		mg/L	1	12/6/2016 4:36:30 PM	A39177
Manganese	1.9	0.0016	0.010	*	mg/L	5	12/6/2016 4:38:08 PM	A39177
Potassium	1.0	0.50	1.0		mg/L	1	12/6/2016 4:36:30 PM	A39177
Silver	ND	0.0028	0.0050		mg/L	1	12/5/2016 7:18:09 PM	A39164
Sodium	210	2.5	5.0		mg/L	5	12/6/2016 4:38:08 PM	A39177
Zinc	0.0055	0.0028	0.010	J	mg/L	1	12/5/2016 7:18:09 PM	A39164
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	6.6	0.0079	0.020	*	mg/L	10	12/6/2016 3:37:49 PM	28977
Cadmium	ND	0.0015	0.0020		mg/L	1	12/5/2016 8:57:39 PM	28977
Chromium	ND	0.0027	0.0060		mg/L	1	12/5/2016 8:57:39 PM	28977
Copper	0.0068	0.0030	0.0060		mg/L	1	12/5/2016 8:57:39 PM	28977
Iron	18	1.0	1.0	*	mg/L	50	12/6/2016 3:39:34 PM	28977
Manganese	1.9	0.0014	0.010	*	mg/L	5	12/5/2016 8:59:20 PM	28977
Silver	ND	0.0015	0.0050		mg/L	1	12/5/2016 8:57:39 PM	28977
Zinc	0.16	0.0027	0.010		mg/L	1	12/5/2016 8:57:39 PM	28977

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-36
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 9:45:00 AM
Lab ID: 1611492-005
Matrix: AQUEOUS
Received Date: 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.015	0.00014	0.0010	*	mg/L	1	11/23/2016 5:22:23 PM	B38954
Lead	0.0022	0.00017	0.00050		mg/L	1	11/23/2016 5:22:23 PM	B38954
Selenium	0.0042	0.00021	0.0010		mg/L	1	11/23/2016 5:22:23 PM	B38954
Uranium	0.00021	0.000051	0.00050	J	mg/L	1	11/23/2016 5:22:23 PM	B38954
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.018	0.00021	0.0010	*	mg/L	1	12/5/2016 2:25:19 PM	28977
Lead	0.010	0.000081	0.00050		mg/L	1	12/5/2016 2:25:19 PM	28977
Selenium	0.0045	0.0019	0.010	J	mg/L	10	12/7/2016 1:26:19 PM	28977
Uranium	0.00085	0.00017	0.00050		mg/L	1	12/5/2016 2:25:19 PM	28977
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/23/2016 6:24:18 PM	28845
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	5.1	2.6	10	J	µg/L	1	11/15/2016 3:15:50 PM	28584
Acenaphthylene	ND	2.4	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Aniline	ND	2.4	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Anthracene	ND	2.5	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Azobenzene	ND	2.7	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Benzoic acid	ND	2.6	20		µg/L	1	11/15/2016 3:15:50 PM	28584
Benzyl alcohol	ND	3.0	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Bis(2-ethylhexyl)phthalate	7.1	2.6	10	J	µg/L	1	11/15/2016 3:15:50 PM	28584
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Butyl benzyl phthalate	2.7	2.5	10	J	µg/L	1	11/15/2016 3:15:50 PM	28584
Carbazole	6.0	2.3	10	J	µg/L	1	11/15/2016 3:15:50 PM	28584
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/15/2016 3:15:50 PM	28584
4-Chloroaniline	ND	2.7	10		µg/L	1	11/15/2016 3:15:50 PM	28584
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/15/2016 3:15:50 PM	28584
2-Chlorophenol	ND	2.2	10		µg/L	1	11/15/2016 3:15:50 PM	28584
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Chrysene	ND	2.8	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/15/2016 3:15:50 PM	28584

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-36
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 9:45:00 AM
Lab ID: 1611492-005 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	8.0	2.0	10	J	µg/L	1	11/15/2016 3:15:50 PM	28584
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Dibenzofuran	ND	2.5	10		µg/L	1	11/15/2016 3:15:50 PM	28584
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/15/2016 3:15:50 PM	28584
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/15/2016 3:15:50 PM	28584
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/15/2016 3:15:50 PM	28584
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Diethyl phthalate	ND	2.7	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/15/2016 3:15:50 PM	28584
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/15/2016 3:15:50 PM	28584
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/15/2016 3:15:50 PM	28584
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/15/2016 3:15:50 PM	28584
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/15/2016 3:15:50 PM	28584
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/15/2016 3:15:50 PM	28584
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Fluoranthene	ND	2.6	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Fluorene	8.0	2.7	10	J	µg/L	1	11/15/2016 3:15:50 PM	28584
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Hexachloroethane	ND	2.4	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Isophorone	ND	2.6	10		µg/L	1	11/15/2016 3:15:50 PM	28584
1-Methylnaphthalene	150	2.9	10		µg/L	1	11/15/2016 3:15:50 PM	28584
2-Methylnaphthalene	230	2.9	10		µg/L	1	11/15/2016 3:15:50 PM	28584
2-Methylphenol	ND	2.5	10		µg/L	1	11/15/2016 3:15:50 PM	28584
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/15/2016 3:15:50 PM	28584
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/15/2016 3:15:50 PM	28584
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/15/2016 3:15:50 PM	28584
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Naphthalene	270	5.2	20		µg/L	2	11/16/2016 5:37:59 PM	28584
2-Nitroaniline	ND	2.8	10		µg/L	1	11/15/2016 3:15:50 PM	28584
3-Nitroaniline	ND	2.9	10		µg/L	1	11/15/2016 3:15:50 PM	28584
4-Nitroaniline	ND	2.6	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Nitrobenzene	ND	2.8	10		µg/L	1	11/15/2016 3:15:50 PM	28584
2-Nitrophenol	ND	2.4	10		µg/L	1	11/15/2016 3:15:50 PM	28584
4-Nitrophenol	ND	2.6	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Pentachlorophenol	ND	2.3	20		µg/L	1	11/15/2016 3:15:50 PM	28584
Phenanthrene	4.4	2.6	10	J	µg/L	1	11/15/2016 3:15:50 PM	28584

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-36
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 9:45:00 AM
Lab ID: 1611492-005 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	28	2.0	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Pyrene	ND	3.1	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Pyridine	ND	2.2	10		µg/L	1	11/15/2016 3:15:50 PM	28584
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/15/2016 3:15:50 PM	28584
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/15/2016 3:15:50 PM	28584
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/15/2016 3:15:50 PM	28584
Surr: 2-Fluorophenol	20.8	0	15-98.1		%Rec	1	11/15/2016 3:15:50 PM	28584
Surr: Phenol-d5	19.1	0	15-80.7		%Rec	1	11/15/2016 3:15:50 PM	28584
Surr: 2,4,6-Tribromophenol	41.2	0	15-112		%Rec	1	11/15/2016 3:15:50 PM	28584
Surr: Nitrobenzene-d5	52.8	0	27.2-90.7		%Rec	1	11/15/2016 3:15:50 PM	28584
Surr: 2-Fluorobiphenyl	46.9	0	23.3-85.6		%Rec	1	11/15/2016 3:15:50 PM	28584
Surr: 4-Terphenyl-d14	35.7	0	27.6-107		%Rec	1	11/15/2016 3:15:50 PM	28584
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	8400	9.6	100		µg/L	100	11/14/2016 3:14:11 PM	R38696
Toluene	21	1.2	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
Ethylbenzene	1300	11	100		µg/L	100	11/14/2016 3:14:11 PM	R38696
Methyl tert-butyl ether (MTBE)	6000	21	100		µg/L	100	11/14/2016 3:14:11 PM	R38696
1,2,4-Trimethylbenzene	60	1.1	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
1,3,5-Trimethylbenzene	13	1.2	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
1,2-Dichloroethane (EDC)	ND	1.2	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
Naphthalene	700	0.93	20		µg/L	10	11/14/2016 3:43:18 PM	R38696
1-Methylnaphthalene	400	2.0	40		µg/L	10	11/14/2016 3:43:18 PM	R38696
2-Methylnaphthalene	480	1.6	40		µg/L	10	11/14/2016 3:43:18 PM	R38696
Acetone	ND	49	100		µg/L	10	11/14/2016 3:43:18 PM	R38696
Bromobenzene	ND	0.98	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
Bromodichloromethane	ND	1.4	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
Bromoform	ND	1.0	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
Bromomethane	ND	7.8	30		µg/L	10	11/14/2016 3:43:18 PM	R38696
2-Butanone	ND	7.4	100		µg/L	10	11/14/2016 3:43:18 PM	R38696
Carbon disulfide	ND	6.0	100		µg/L	10	11/14/2016 3:43:18 PM	R38696
Carbon Tetrachloride	ND	1.1	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
Chlorobenzene	ND	1.1	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
Chloroethane	ND	1.9	20		µg/L	10	11/14/2016 3:43:18 PM	R38696
Chloroform	ND	0.89	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
Chloromethane	ND	2.1	30		µg/L	10	11/14/2016 3:43:18 PM	R38696
2-Chlorotoluene	ND	4.0	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
4-Chlorotoluene	ND	1.3	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
cis-1,2-DCE	ND	1.2	10		µg/L	10	11/14/2016 3:43:18 PM	R38696

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-36
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 9:45:00 AM
Lab ID: 1611492-005 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	11/14/2016 3:43:18 PM	R38696
Dibromochloromethane	ND	0.87	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
Dibromomethane	ND	1.2	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
1,1-Dichloroethane	ND	1.1	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
1,1-Dichloroethene	ND	1.1	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
1,2-Dichloropropane	ND	1.1	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
1,3-Dichloropropane	ND	1.6	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
2,2-Dichloropropane	ND	1.7	20		µg/L	10	11/14/2016 3:43:18 PM	R38696
1,1-Dichloropropene	ND	1.3	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
Hexachlorobutadiene	ND	2.0	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
2-Hexanone	ND	8.4	100		µg/L	10	11/14/2016 3:43:18 PM	R38696
Isopropylbenzene	28	1.0	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
4-Isopropyltoluene	ND	1.4	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	11/14/2016 3:43:18 PM	R38696
Methylene Chloride	ND	1.9	30		µg/L	10	11/14/2016 3:43:18 PM	R38696
n-Butylbenzene	8.0	1.6	30	J	µg/L	10	11/14/2016 3:43:18 PM	R38696
n-Propylbenzene	64	1.3	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
sec-Butylbenzene	5.8	1.2	10	J	µg/L	10	11/14/2016 3:43:18 PM	R38696
Styrene	ND	1.1	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
tert-Butylbenzene	ND	1.2	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	11/14/2016 3:43:18 PM	R38696
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
trans-1,2-DCE	ND	4.0	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
1,1,1-Trichloroethane	ND	0.91	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
Trichlorofluoromethane	ND	2.0	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	11/14/2016 3:43:18 PM	R38696
Vinyl chloride	ND	2.0	10		µg/L	10	11/14/2016 3:43:18 PM	R38696
Xylenes, Total	130	3.7	15		µg/L	10	11/14/2016 3:43:18 PM	R38696

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MKTF-36
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 9:45:00 AM
Lab ID: 1611492-005 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	89.7	0	70-130		%Rec	10	11/14/2016 3:43:18 PM	R38696
Surr: 4-Bromofluorobenzene	96.2	0	70-130		%Rec	10	11/14/2016 3:43:18 PM	R38696
Surr: Dibromofluoromethane	96.9	0	70-130		%Rec	10	11/14/2016 3:43:18 PM	R38696
Surr: Toluene-d8	100	0	70-130		%Rec	10	11/14/2016 3:43:18 PM	R38696

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110816
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 10:10:00 AM
Lab ID: 1611492-006
Matrix: AQUEOUS
Received Date: 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	11/21/2016 1:18:27 PM	28775
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/14/2016 10:44:43 PM	28621
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/14/2016 10:44:43 PM	28621
Surr: DNOP	105	0	77.1-144		%Rec	1	11/14/2016 10:44:43 PM	28621
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/11/2016 1:13:48 AM	G38599
Surr: BFB	83.6	0	66.4-120		%Rec	1	11/11/2016 1:13:48 AM	G38599
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	ND	0.050	0.10		mg/L	1	11/15/2016 12:19:09 AM	R38701
Chloride	ND	0.051	0.50		mg/L	1	11/15/2016 12:19:09 AM	R38701
Bromide	ND	0.044	0.10		mg/L	1	11/15/2016 12:19:09 AM	R38701
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/15/2016 12:19:09 AM	R38701
Sulfate	ND	0.14	0.50		mg/L	1	11/15/2016 12:19:09 AM	R38701
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	11/17/2016 1:45:10 AM	A38771
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **TES**	
Barium	ND	0.0013	0.0020		mg/L	1	12/5/2016 7:19:52 PM	A39164
Cadmium	ND	0.00075	0.0020		mg/L	1	12/5/2016 7:19:52 PM	A39164
Calcium	ND	0.50	1.0		mg/L	1	12/6/2016 4:41:56 PM	A39177
Chromium	ND	0.0018	0.0060		mg/L	1	12/5/2016 7:19:52 PM	A39164
Copper	ND	0.0040	0.0060		mg/L	1	12/5/2016 7:19:52 PM	A39164
Iron	ND	0.020	0.020		mg/L	1	12/5/2016 7:19:52 PM	A39164
Magnesium	ND	0.50	1.0		mg/L	1	12/6/2016 4:41:56 PM	A39177
Manganese	ND	0.00032	0.0020		mg/L	1	12/5/2016 7:19:52 PM	A39164
Potassium	ND	0.50	1.0		mg/L	1	12/6/2016 4:41:56 PM	A39177
Silver	ND	0.0028	0.0050		mg/L	1	12/5/2016 7:19:52 PM	A39164
Sodium	ND	0.50	1.0		mg/L	1	12/6/2016 4:41:56 PM	A39177
Zinc	ND	0.0028	0.010		mg/L	1	12/5/2016 7:19:52 PM	A39164
EPA METHOD 200.7: TOTAL METALS							Analyst: **TES**	
Barium	ND	0.00079	0.0020		mg/L	1	12/5/2016 9:01:06 PM	28977
Cadmium	ND	0.0015	0.0020		mg/L	1	12/5/2016 9:01:06 PM	28977
Chromium	ND	0.0027	0.0060		mg/L	1	12/5/2016 9:01:06 PM	28977
Copper	0.0040	0.0030	0.0060	J	mg/L	1	12/5/2016 9:01:06 PM	28977
Iron	ND	0.020	0.020		mg/L	1	12/5/2016 9:01:06 PM	28977
Manganese	ND	0.00027	0.0020		mg/L	1	12/5/2016 9:01:06 PM	28977
Silver	ND	0.0015	0.0050		mg/L	1	12/5/2016 9:01:06 PM	28977
Zinc	ND	0.0027	0.010		mg/L	1	12/5/2016 9:01:06 PM	28977

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110816
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 10:10:00 AM
Lab ID: 1611492-006 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	ND	0.00014	0.0010		mg/L	1	11/23/2016 5:27:31 PM	B38954
Lead	ND	0.00017	0.00050		mg/L	1	11/23/2016 5:27:31 PM	B38954
Selenium	ND	0.00021	0.0010		mg/L	1	11/23/2016 5:27:31 PM	B38954
Uranium	ND	0.000051	0.00050		mg/L	1	11/23/2016 5:27:31 PM	B38954
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.00021	0.0010		mg/L	1	12/5/2016 2:28:20 PM	28977
Lead	ND	0.000081	0.00050		mg/L	1	12/5/2016 2:28:20 PM	28977
Selenium	ND	0.00019	0.0010		mg/L	1	12/5/2016 2:28:20 PM	28977
Uranium	ND	0.00017	0.00050		mg/L	1	12/5/2016 2:28:20 PM	28977
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/23/2016 6:30:31 PM	28845
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Acenaphthylene	ND	2.4	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Aniline	ND	2.4	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Anthracene	ND	2.5	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Azobenzene	ND	2.7	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Benzoic acid	14	2.6	20	J	µg/L	1	11/15/2016 3:43:26 PM	28584
Benzyl alcohol	ND	3.0	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Bis(2-ethylhexyl)phthalate	6.7	2.6	10	J	µg/L	1	11/15/2016 3:43:26 PM	28584
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Butyl benzyl phthalate	2.6	2.5	10	J	µg/L	1	11/15/2016 3:43:26 PM	28584
Carbazole	ND	2.3	10		µg/L	1	11/15/2016 3:43:26 PM	28584
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/15/2016 3:43:26 PM	28584
4-Chloroaniline	ND	2.7	10		µg/L	1	11/15/2016 3:43:26 PM	28584
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/15/2016 3:43:26 PM	28584
2-Chlorophenol	ND	2.2	10		µg/L	1	11/15/2016 3:43:26 PM	28584
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Chrysene	ND	2.8	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/15/2016 3:43:26 PM	28584

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110816
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 10:10:00 AM
Lab ID: 1611492-006 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Di-n-octyl phthalate	7.5	2.0	10	J	µg/L	1	11/15/2016 3:43:26 PM	28584
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Dibenzofuran	ND	2.5	10		µg/L	1	11/15/2016 3:43:26 PM	28584
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/15/2016 3:43:26 PM	28584
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/15/2016 3:43:26 PM	28584
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/15/2016 3:43:26 PM	28584
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Diethyl phthalate	ND	2.7	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/15/2016 3:43:26 PM	28584
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/15/2016 3:43:26 PM	28584
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/15/2016 3:43:26 PM	28584
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/15/2016 3:43:26 PM	28584
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/15/2016 3:43:26 PM	28584
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/15/2016 3:43:26 PM	28584
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Fluoranthene	ND	2.6	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Fluorene	ND	2.7	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Hexachloroethane	ND	2.4	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Isophorone	ND	2.6	10		µg/L	1	11/15/2016 3:43:26 PM	28584
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/15/2016 3:43:26 PM	28584
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/15/2016 3:43:26 PM	28584
2-Methylphenol	ND	2.5	10		µg/L	1	11/15/2016 3:43:26 PM	28584
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/15/2016 3:43:26 PM	28584
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/15/2016 3:43:26 PM	28584
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/15/2016 3:43:26 PM	28584
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Naphthalene	ND	2.6	10		µg/L	1	11/15/2016 3:43:26 PM	28584
2-Nitroaniline	ND	2.8	10		µg/L	1	11/15/2016 3:43:26 PM	28584
3-Nitroaniline	ND	2.9	10		µg/L	1	11/15/2016 3:43:26 PM	28584
4-Nitroaniline	ND	2.6	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Nitrobenzene	ND	2.8	10		µg/L	1	11/15/2016 3:43:26 PM	28584
2-Nitrophenol	ND	2.4	10		µg/L	1	11/15/2016 3:43:26 PM	28584
4-Nitrophenol	ND	2.6	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Pentachlorophenol	ND	2.3	20		µg/L	1	11/15/2016 3:43:26 PM	28584
Phenanthrene	ND	2.6	10		µg/L	1	11/15/2016 3:43:26 PM	28584

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110816
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 10:10:00 AM
Lab ID: 1611492-006 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Phenol	ND	2.0	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Pyrene	ND	3.1	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Pyridine	ND	2.2	10		µg/L	1	11/15/2016 3:43:26 PM	28584
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/15/2016 3:43:26 PM	28584
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/15/2016 3:43:26 PM	28584
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/15/2016 3:43:26 PM	28584
Surr: 2-Fluorophenol	34.9	0	15-98.1		%Rec	1	11/15/2016 3:43:26 PM	28584
Surr: Phenol-d5	29.2	0	15-80.7		%Rec	1	11/15/2016 3:43:26 PM	28584
Surr: 2,4,6-Tribromophenol	46.0	0	15-112		%Rec	1	11/15/2016 3:43:26 PM	28584
Surr: Nitrobenzene-d5	77.7	0	27.2-90.7		%Rec	1	11/15/2016 3:43:26 PM	28584
Surr: 2-Fluorobiphenyl	69.0	0	23.3-85.6		%Rec	1	11/15/2016 3:43:26 PM	28584
Surr: 4-Terphenyl-d14	75.4	0	27.6-107		%Rec	1	11/15/2016 3:43:26 PM	28584
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	1.0	0.096	1.0	J	µg/L	1	11/14/2016 4:12:46 PM	R38696
Toluene	0.17	0.12	1.0	J	µg/L	1	11/14/2016 4:12:46 PM	R38696
Ethylbenzene	0.41	0.11	1.0	J	µg/L	1	11/14/2016 4:12:46 PM	R38696
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
1,2,4-Trimethylbenzene	0.13	0.11	1.0	J	µg/L	1	11/14/2016 4:12:46 PM	R38696
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
Naphthalene	0.77	0.093	2.0	J	µg/L	1	11/14/2016 4:12:46 PM	R38696
1-Methylnaphthalene	1.7	0.20	4.0	J	µg/L	1	11/14/2016 4:12:46 PM	R38696
2-Methylnaphthalene	1.2	0.16	4.0	J	µg/L	1	11/14/2016 4:12:46 PM	R38696
Acetone	7.3	4.9	10	J	µg/L	1	11/14/2016 4:12:46 PM	R38696
Bromobenzene	ND	0.098	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
Bromoform	ND	0.10	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
Bromomethane	ND	0.78	3.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
2-Butanone	ND	0.74	10		µg/L	1	11/14/2016 4:12:46 PM	R38696
Carbon disulfide	ND	0.60	10		µg/L	1	11/14/2016 4:12:46 PM	R38696
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
Chloroethane	ND	0.19	2.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
Chloroform	ND	0.089	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
Chloromethane	ND	0.21	3.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110816
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 10:10:00 AM
Lab ID: 1611492-006 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
Dibromomethane	ND	0.12	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
2-Hexanone	ND	0.84	10		µg/L	1	11/14/2016 4:12:46 PM	R38696
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/14/2016 4:12:46 PM	R38696
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
Styrene	ND	0.11	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/14/2016 4:12:46 PM	R38696
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/14/2016 4:12:46 PM	R38696

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110816
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016 10:10:00 AM
Lab ID: 1611492-006
Matrix: AQUEOUS
Received Date: 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	1	11/14/2016 4:12:46 PM	R38696
Surr: 4-Bromofluorobenzene	90.3	0	70-130		%Rec	1	11/14/2016 4:12:46 PM	R38696
Surr: Dibromofluoromethane	111	0	70-130		%Rec	1	11/14/2016 4:12:46 PM	R38696
Surr: Toluene-d8	99.0	0	70-130		%Rec	1	11/14/2016 4:12:46 PM	R38696

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP06
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016
Lab ID: 1611492-007
Matrix: AQUEOUS
Received Date: 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/14/2016 11:11:24 PM	28621
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/14/2016 11:11:24 PM	28621
Surr: DNOP	108	0	77.1-144		%Rec	1	11/14/2016 11:11:24 PM	28621
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/11/2016 1:38:10 AM	G38599
Surr: BFB	88.9	0	66.4-120		%Rec	1	11/11/2016 1:38:10 AM	G38599
EPA METHOD 300.0: ANIONS							Analyst: **MRA**	
Fluoride	0.45	0.050	0.10		mg/L	1	11/15/2016 1:08:48 AM	R38701
Chloride	240	1.0	10		mg/L	20	11/15/2016 1:21:12 AM	R38701
Bromide	1.4	0.044	0.10		mg/L	1	11/15/2016 1:08:48 AM	R38701
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50	H	mg/L	1	11/15/2016 1:08:48 AM	R38701
Sulfate	210	2.8	10		mg/L	20	11/15/2016 1:21:12 AM	R38701
Nitrate+Nitrite as N	9.1	0.46	1.0		mg/L	5	11/17/2016 1:57:34 AM	A38771
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **TES**	
Barium	0.057	0.0013	0.0020		mg/L	1	12/5/2016 7:21:52 PM	A39164
Cadmium	ND	0.00075	0.0020		mg/L	1	12/5/2016 7:21:52 PM	A39164
Calcium	54	0.50	1.0		mg/L	1	12/6/2016 4:43:54 PM	A39177
Chromium	ND	0.0018	0.0060		mg/L	1	12/5/2016 7:21:52 PM	A39164
Copper	ND	0.0040	0.0060		mg/L	1	12/5/2016 7:21:52 PM	A39164
Iron	ND	0.020	0.020		mg/L	1	12/5/2016 7:21:52 PM	A39164
Magnesium	13	0.50	1.0		mg/L	1	12/6/2016 4:43:54 PM	A39177
Manganese	0.00033	0.00032	0.0020	J	mg/L	1	12/5/2016 7:21:52 PM	A39164
Potassium	1.6	0.50	1.0		mg/L	1	12/6/2016 4:43:54 PM	A39177
Silver	ND	0.0028	0.0050		mg/L	1	12/5/2016 7:21:52 PM	A39164
Sodium	390	2.5	5.0		mg/L	5	12/6/2016 4:45:48 PM	A39177
Zinc	0.0034	0.0028	0.010	J	mg/L	1	12/5/2016 7:21:52 PM	A39164
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.075	0.00079	0.0020		mg/L	1	12/6/2016 3:41:34 PM	28977
Cadmium	ND	0.0015	0.0020		mg/L	1	12/6/2016 3:41:34 PM	28977
Chromium	ND	0.0027	0.0060		mg/L	1	12/6/2016 3:41:34 PM	28977
Copper	ND	0.0030	0.0060		mg/L	1	12/6/2016 3:41:34 PM	28977
Iron	0.40	0.020	0.020	*	mg/L	1	12/6/2016 3:41:34 PM	28977
Manganese	0.014	0.00027	0.0020		mg/L	1	12/6/2016 3:41:34 PM	28977
Silver	ND	0.0015	0.0050		mg/L	1	12/6/2016 3:41:34 PM	28977
Zinc	0.0068	0.0027	0.010	J	mg/L	1	12/6/2016 3:41:34 PM	28977
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0030	0.00069	0.0050	J	mg/L	5	11/28/2016 3:35:59 PM	B39007

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP06
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016
Lab ID: 1611492-007
Matrix: AQUEOUS
Received Date: 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Lead	ND	0.00017	0.00050		mg/L	1	11/23/2016 5:32:39 PM	B38954
Selenium	0.0085	0.0011	0.0050		mg/L	5	11/28/2016 3:35:59 PM	B39007
Uranium	0.036	0.00026	0.0025	*	mg/L	5	11/28/2016 3:35:59 PM	B39007
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0028	0.0011	0.0050	J	mg/L	5	12/7/2016 1:31:28 PM	28977
Lead	0.00058	0.000081	0.00050		mg/L	1	12/5/2016 2:31:20 PM	28977
Selenium	0.0093	0.0037	0.020	J	mg/L	20	12/7/2016 1:36:36 PM	28977
Uranium	0.039	0.00087	0.0025	*	mg/L	5	12/7/2016 1:31:28 PM	28977
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	0.00033	0.000053	0.00020		mg/L	1	11/23/2016 6:32:33 PM	28845
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	2.6	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Acenaphthylene	ND	2.4	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Aniline	ND	2.4	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Anthracene	ND	2.5	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Azobenzene	ND	2.7	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Benz(a)anthracene	ND	2.6	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Benzo(a)pyrene	ND	2.7	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Benzo(b)fluoranthene	ND	2.9	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Benzo(g,h,i)perylene	ND	2.6	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Benzo(k)fluoranthene	ND	3.0	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Benzoic acid	22	2.6	20		µg/L	1	11/15/2016 4:11:11 PM	28584
Benzyl alcohol	ND	3.0	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Bis(2-chloroethoxy)methane	ND	2.8	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Bis(2-chloroethyl)ether	ND	2.7	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Bis(2-chloroisopropyl)ether	ND	1.9	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Bis(2-ethylhexyl)phthalate	6.4	2.6	10	J	µg/L	1	11/15/2016 4:11:11 PM	28584
4-Bromophenyl phenyl ether	ND	2.6	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Butyl benzyl phthalate	ND	2.5	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Carbazole	ND	2.3	10		µg/L	1	11/15/2016 4:11:11 PM	28584
4-Chloro-3-methylphenol	ND	2.6	10		µg/L	1	11/15/2016 4:11:11 PM	28584
4-Chloroaniline	ND	2.7	10		µg/L	1	11/15/2016 4:11:11 PM	28584
2-Chloronaphthalene	ND	2.3	10		µg/L	1	11/15/2016 4:11:11 PM	28584
2-Chlorophenol	ND	2.2	10		µg/L	1	11/15/2016 4:11:11 PM	28584
4-Chlorophenyl phenyl ether	ND	2.6	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Chrysene	ND	2.8	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Di-n-butyl phthalate	ND	2.4	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Di-n-octyl phthalate	6.8	2.0	10	J	µg/L	1	11/15/2016 4:11:11 PM	28584

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP06
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016
Lab ID: 1611492-007
Matrix: AQUEOUS
Received Date: 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenz(a,h)anthracene	ND	2.7	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Dibenzofuran	ND	2.5	10		µg/L	1	11/15/2016 4:11:11 PM	28584
1,2-Dichlorobenzene	ND	2.3	10		µg/L	1	11/15/2016 4:11:11 PM	28584
1,3-Dichlorobenzene	ND	2.3	10		µg/L	1	11/15/2016 4:11:11 PM	28584
1,4-Dichlorobenzene	ND	2.4	10		µg/L	1	11/15/2016 4:11:11 PM	28584
3,3´-Dichlorobenzidine	ND	2.4	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Diethyl phthalate	ND	2.7	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Dimethyl phthalate	ND	2.4	10		µg/L	1	11/15/2016 4:11:11 PM	28584
2,4-Dichlorophenol	ND	2.3	20		µg/L	1	11/15/2016 4:11:11 PM	28584
2,4-Dimethylphenol	ND	3.0	10		µg/L	1	11/15/2016 4:11:11 PM	28584
4,6-Dinitro-2-methylphenol	ND	1.8	20		µg/L	1	11/15/2016 4:11:11 PM	28584
2,4-Dinitrophenol	ND	2.8	20		µg/L	1	11/15/2016 4:11:11 PM	28584
2,4-Dinitrotoluene	ND	3.1	10		µg/L	1	11/15/2016 4:11:11 PM	28584
2,6-Dinitrotoluene	ND	2.7	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Fluoranthene	ND	2.6	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Fluorene	ND	2.7	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Hexachlorobenzene	ND	2.6	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Hexachlorobutadiene	ND	2.2	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Hexachlorocyclopentadiene	ND	2.3	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Hexachloroethane	ND	2.4	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Indeno(1,2,3-cd)pyrene	ND	3.0	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Isophorone	ND	2.6	10		µg/L	1	11/15/2016 4:11:11 PM	28584
1-Methylnaphthalene	ND	2.9	10		µg/L	1	11/15/2016 4:11:11 PM	28584
2-Methylnaphthalene	ND	2.9	10		µg/L	1	11/15/2016 4:11:11 PM	28584
2-Methylphenol	ND	2.5	10		µg/L	1	11/15/2016 4:11:11 PM	28584
3+4-Methylphenol	ND	2.3	10		µg/L	1	11/15/2016 4:11:11 PM	28584
N-Nitrosodi-n-propylamine	ND	2.4	10		µg/L	1	11/15/2016 4:11:11 PM	28584
N-Nitrosodimethylamine	ND	2.2	10		µg/L	1	11/15/2016 4:11:11 PM	28584
N-Nitrosodiphenylamine	ND	2.3	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Naphthalene	ND	2.6	10		µg/L	1	11/15/2016 4:11:11 PM	28584
2-Nitroaniline	ND	2.8	10		µg/L	1	11/15/2016 4:11:11 PM	28584
3-Nitroaniline	ND	2.9	10		µg/L	1	11/15/2016 4:11:11 PM	28584
4-Nitroaniline	ND	2.6	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Nitrobenzene	ND	2.8	10		µg/L	1	11/15/2016 4:11:11 PM	28584
2-Nitrophenol	ND	2.4	10		µg/L	1	11/15/2016 4:11:11 PM	28584
4-Nitrophenol	ND	2.6	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Pentachlorophenol	ND	2.3	20		µg/L	1	11/15/2016 4:11:11 PM	28584
Phenanthrene	ND	2.6	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Phenol	ND	2.0	10		µg/L	1	11/15/2016 4:11:11 PM	28584

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP06
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016
Lab ID: 1611492-007
Matrix: AQUEOUS
Received Date: 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyrene	ND	3.1	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Pyridine	ND	2.2	10		µg/L	1	11/15/2016 4:11:11 PM	28584
1,2,4-Trichlorobenzene	ND	2.6	10		µg/L	1	11/15/2016 4:11:11 PM	28584
2,4,5-Trichlorophenol	ND	2.2	10		µg/L	1	11/15/2016 4:11:11 PM	28584
2,4,6-Trichlorophenol	ND	2.4	10		µg/L	1	11/15/2016 4:11:11 PM	28584
Surr: 2-Fluorophenol	37.9	0	15-98.1		%Rec	1	11/15/2016 4:11:11 PM	28584
Surr: Phenol-d5	31.1	0	15-80.7		%Rec	1	11/15/2016 4:11:11 PM	28584
Surr: 2,4,6-Tribromophenol	83.2	0	15-112		%Rec	1	11/15/2016 4:11:11 PM	28584
Surr: Nitrobenzene-d5	70.2	0	27.2-90.7		%Rec	1	11/15/2016 4:11:11 PM	28584
Surr: 2-Fluorobiphenyl	68.5	0	23.3-85.6		%Rec	1	11/15/2016 4:11:11 PM	28584
Surr: 4-Terphenyl-d14	68.3	0	27.6-107		%Rec	1	11/15/2016 4:11:11 PM	28584
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	0.34	0.096	1.0	J	µg/L	1	11/14/2016 4:42:14 PM	R38696
Toluene	ND	0.12	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
Ethylbenzene	0.17	0.11	1.0	J	µg/L	1	11/14/2016 4:42:14 PM	R38696
Methyl tert-butyl ether (MTBE)	0.85	0.21	1.0	J	µg/L	1	11/14/2016 4:42:14 PM	R38696
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
Naphthalene	ND	0.093	2.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
Acetone	ND	4.9	10		µg/L	1	11/14/2016 4:42:14 PM	R38696
Bromobenzene	ND	0.098	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
Bromoform	ND	0.10	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
Bromomethane	ND	0.78	3.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
2-Butanone	ND	0.74	10		µg/L	1	11/14/2016 4:42:14 PM	R38696
Carbon disulfide	ND	0.60	10		µg/L	1	11/14/2016 4:42:14 PM	R38696
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
Chloroethane	ND	0.19	2.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
Chloroform	ND	0.089	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
Chloromethane	ND	0.21	3.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
cis-1,2-DCE	0.29	0.12	1.0	J	µg/L	1	11/14/2016 4:42:14 PM	R38696
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP06
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016
Lab ID: 1611492-007
Matrix: AQUEOUS
Received Date: 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
Dibromomethane	ND	0.12	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
1,1-Dichloroethene	2.7	0.11	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
2-Hexanone	ND	0.84	10		µg/L	1	11/14/2016 4:42:14 PM	R38696
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/14/2016 4:42:14 PM	R38696
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
Styrene	ND	0.11	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
Tetrachloroethene (PCE)	0.25	0.15	1.0	J	µg/L	1	11/14/2016 4:42:14 PM	R38696
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
Trichloroethene (TCE)	4.9	0.18	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/14/2016 4:42:14 PM	R38696
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/14/2016 4:42:14 PM	R38696
Surr: 1,2-Dichloroethane-d4	97.6	0	70-130		%Rec	1	11/14/2016 4:42:14 PM	R38696

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP06
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/8/2016
Lab ID: 1611492-007
Matrix: AQUEOUS
Received Date: 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Surr: 4-Bromofluorobenzene	94.9	0	70-130		%Rec	1	11/14/2016 4:42:14 PM	R38696
Surr: Dibromofluoromethane	109	0	70-130		%Rec	1	11/14/2016 4:42:14 PM	R38696
Surr: Toluene-d8	94.8	0	70-130		%Rec	1	11/14/2016 4:42:14 PM	R38696

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-58
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/7/2016 2:50:00 PM
Lab ID: 1611492-008
Matrix: AQUEOUS
Received Date: 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	4.8	0.69	1.0		mg/L	1	11/14/2016 11:38:08 PM	28621
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/14/2016 11:38:08 PM	28621
Surr: DNOP	108	0	77.1-144		%Rec	1	11/14/2016 11:38:08 PM	28621
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	120	13	25		mg/L	500	11/11/2016 11:10:06 AM	B38637
Surr: BFB	90.1	0	66.4-120		%Rec	500	11/11/2016 11:10:06 AM	B38637
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	4.0	0.013	0.020	*	mg/L	10	12/6/2016 4:55:23 PM	A39177
Cadmium	ND	0.00075	0.0020		mg/L	1	12/5/2016 7:29:34 PM	A39164
Calcium	130	5.0	10		mg/L	10	12/6/2016 4:55:23 PM	A39177
Chromium	ND	0.0018	0.0060		mg/L	1	12/5/2016 7:29:34 PM	A39164
Copper	ND	0.0040	0.0060		mg/L	1	12/5/2016 7:29:34 PM	A39164
Iron	7.9	0.20	0.20	*	mg/L	10	12/6/2016 4:55:23 PM	A39177
Magnesium	38	0.50	1.0		mg/L	1	12/6/2016 4:47:48 PM	A39177
Manganese	2.2	0.0032	0.020	*	mg/L	10	12/6/2016 4:55:23 PM	A39177
Potassium	0.60	0.50	1.0	J	mg/L	1	12/6/2016 4:47:48 PM	A39177
Silver	ND	0.0028	0.0050		mg/L	1	12/5/2016 7:29:34 PM	A39164
Sodium	270	5.0	10		mg/L	10	12/6/2016 4:55:23 PM	A39177
Zinc	ND	0.0028	0.010		mg/L	1	12/5/2016 7:29:34 PM	A39164
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	4.8	0.0079	0.020	*	mg/L	10	12/6/2016 3:45:09 PM	28977
Cadmium	ND	0.0015	0.0020		mg/L	1	12/6/2016 3:43:27 PM	28977
Chromium	0.0044	0.0027	0.0060	J	mg/L	1	12/6/2016 3:43:27 PM	28977
Copper	ND	0.0030	0.0060		mg/L	1	12/6/2016 3:43:27 PM	28977
Iron	15	1.0	1.0	*	mg/L	50	12/6/2016 3:46:58 PM	28977
Manganese	3.0	0.0027	0.020	*	mg/L	10	12/6/2016 3:45:09 PM	28977
Silver	ND	0.0015	0.0050		mg/L	1	12/6/2016 3:43:27 PM	28977
Zinc	0.017	0.0027	0.010		mg/L	1	12/6/2016 3:43:27 PM	28977
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0056	0.0028	0.020	J	mg/L	20	11/28/2016 3:42:05 PM	B39007
Lead	0.00019	0.00017	0.00050	J	mg/L	1	11/23/2016 5:37:47 PM	B38954
Selenium	0.011	0.0042	0.020	J	mg/L	20	11/28/2016 3:42:05 PM	B39007
Uranium	0.00065	0.000051	0.00050		mg/L	1	11/23/2016 5:37:47 PM	B38954
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0060	0.0011	0.0050		mg/L	5	12/7/2016 1:41:44 PM	28977
Lead	0.012	0.00041	0.0025		mg/L	5	12/7/2016 1:41:44 PM	28977
Selenium	0.012	0.0037	0.020	J	mg/L	20	12/7/2016 1:57:14 PM	28977

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-58
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/7/2016 2:50:00 PM
Lab ID: 1611492-008 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.0012	0.00087	0.0025	J	mg/L	5	12/7/2016 1:41:44 PM	28977
EPA METHOD 245.1: MERCURY							Analyst: **DBD**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/23/2016 6:34:37 PM	28845
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	34000	96	1000		µg/L	1000	11/16/2016 11:34:01 AM	R38763
Toluene	1100	2.4	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
Ethylbenzene	1300	2.2	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
Methyl tert-butyl ether (MTBE)	2700	4.2	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
1,2,4-Trimethylbenzene	210	2.2	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
1,3,5-Trimethylbenzene	71	2.3	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
1,2-Dichloroethane (EDC)	ND	2.3	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
1,2-Dibromoethane (EDB)	ND	2.2	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
Naphthalene	190	1.9	40		µg/L	20	11/15/2016 3:26:02 PM	W38715
1-Methylnaphthalene	77	4.1	80	J	µg/L	20	11/15/2016 3:26:02 PM	W38715
2-Methylnaphthalene	61	3.2	80	J	µg/L	20	11/15/2016 3:26:02 PM	W38715
Acetone	ND	98	200		µg/L	20	11/15/2016 3:26:02 PM	W38715
Bromobenzene	ND	2.0	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
Bromodichloromethane	ND	2.8	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
Bromoform	ND	2.0	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
Bromomethane	ND	16	60		µg/L	20	11/15/2016 3:26:02 PM	W38715
2-Butanone	ND	15	200		µg/L	20	11/15/2016 3:26:02 PM	W38715
Carbon disulfide	ND	12	200		µg/L	20	11/15/2016 3:26:02 PM	W38715
Carbon Tetrachloride	ND	2.2	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
Chlorobenzene	ND	2.3	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
Chloroethane	ND	3.8	40		µg/L	20	11/15/2016 3:26:02 PM	W38715
Chloroform	ND	1.8	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
Chloromethane	ND	4.3	60		µg/L	20	11/15/2016 3:26:02 PM	W38715
2-Chlorotoluene	ND	8.0	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
4-Chlorotoluene	ND	2.6	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
cis-1,2-DCE	ND	2.5	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
cis-1,3-Dichloropropene	ND	2.1	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
1,2-Dibromo-3-chloropropane	ND	4.7	40		µg/L	20	11/15/2016 3:26:02 PM	W38715
Dibromochloromethane	ND	1.7	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
Dibromomethane	ND	2.4	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
1,2-Dichlorobenzene	ND	8.0	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
1,3-Dichlorobenzene	ND	2.9	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
1,4-Dichlorobenzene	ND	2.9	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
Dichlorodifluoromethane	ND	7.1	20		µg/L	20	11/15/2016 3:26:02 PM	W38715

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-58
Project: 2016 4th Qtr (MKTF)
Collection Date: 11/7/2016 2:50:00 PM
Lab ID: 1611492-008 **Matrix:** AQUEOUS **Received Date:** 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloroethane	ND	2.2	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
1,1-Dichloroethene	ND	2.1	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
1,2-Dichloropropane	ND	2.2	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
1,3-Dichloropropane	ND	3.1	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
2,2-Dichloropropane	ND	3.3	40		µg/L	20	11/15/2016 3:26:02 PM	W38715
1,1-Dichloropropene	ND	2.7	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
Hexachlorobutadiene	ND	4.0	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
2-Hexanone	ND	17	200		µg/L	20	11/15/2016 3:26:02 PM	W38715
Isopropylbenzene	43	2.1	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
4-Isopropyltoluene	7.5	2.8	20	J	µg/L	20	11/15/2016 3:26:02 PM	W38715
4-Methyl-2-pentanone	ND	8.6	200		µg/L	20	11/15/2016 3:26:02 PM	W38715
Methylene Chloride	ND	3.7	60		µg/L	20	11/15/2016 3:26:02 PM	W38715
n-Butylbenzene	14	3.2	60	J	µg/L	20	11/15/2016 3:26:02 PM	W38715
n-Propylbenzene	110	2.6	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
sec-Butylbenzene	12	2.5	20	J	µg/L	20	11/15/2016 3:26:02 PM	W38715
Styrene	ND	2.2	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
tert-Butylbenzene	ND	2.3	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
1,1,1,2-Tetrachloroethane	ND	2.2	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
1,1,2,2-Tetrachloroethane	ND	2.6	40		µg/L	20	11/15/2016 3:26:02 PM	W38715
Tetrachloroethene (PCE)	ND	3.0	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
trans-1,2-DCE	ND	8.0	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
trans-1,3-Dichloropropene	ND	2.1	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
1,2,3-Trichlorobenzene	ND	2.3	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
1,2,4-Trichlorobenzene	ND	2.7	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
1,1,1-Trichloroethane	ND	1.8	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
1,1,2-Trichloroethane	ND	2.5	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
Trichloroethene (TCE)	ND	3.5	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
Trichlorofluoromethane	ND	4.1	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
1,2,3-Trichloropropane	ND	4.0	40		µg/L	20	11/15/2016 3:26:02 PM	W38715
Vinyl chloride	ND	3.9	20		µg/L	20	11/15/2016 3:26:02 PM	W38715
Xylenes, Total	1200	7.3	30		µg/L	20	11/15/2016 3:26:02 PM	W38715
Surr: 1,2-Dichloroethane-d4	90.0	0	70-130		%Rec	20	11/15/2016 3:26:02 PM	W38715
Surr: 4-Bromofluorobenzene	90.4	0	70-130		%Rec	20	11/15/2016 3:26:02 PM	W38715
Surr: Dibromofluoromethane	96.7	0	70-130		%Rec	20	11/15/2016 3:26:02 PM	W38715
Surr: Toluene-d8	100	0	70-130		%Rec	20	11/15/2016 3:26:02 PM	W38715

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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2016 4th Qtr (MKTF)
Collection Date:
Lab ID: 1611492-009
Matrix: AQUEOUS
Received Date: 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/11/2016 11:59:03 AM	B38637
Surr: BFB	92.9	0	66.4-120		%Rec	1	11/11/2016 11:59:03 AM	B38637
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	0.13	0.096	1.0	J	µg/L	1	11/14/2016 12:48:54 PM	R38696
Toluene	ND	0.12	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
Ethylbenzene	0.16	0.11	1.0	J	µg/L	1	11/14/2016 12:48:54 PM	R38696
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
Naphthalene	ND	0.093	2.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
Acetone	5.1	4.9	10	J	µg/L	1	11/14/2016 12:48:54 PM	R38696
Bromobenzene	ND	0.098	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
Bromoform	ND	0.10	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
Bromomethane	ND	0.78	3.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
2-Butanone	ND	0.74	10		µg/L	1	11/14/2016 12:48:54 PM	R38696
Carbon disulfide	ND	0.60	10		µg/L	1	11/14/2016 12:48:54 PM	R38696
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
Chloroethane	ND	0.19	2.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
Chloroform	0.13	0.089	1.0	J	µg/L	1	11/14/2016 12:48:54 PM	R38696
Chloromethane	ND	0.21	3.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
Dibromomethane	ND	0.12	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2016 4th Qtr (MKTF)
Collection Date:
Lab ID: 1611492-009
Matrix: AQUEOUS
Received Date: 11/8/2016 3:55:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
2-Hexanone	ND	0.84	10		µg/L	1	11/14/2016 12:48:54 PM	R38696
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/14/2016 12:48:54 PM	R38696
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
Styrene	ND	0.11	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/14/2016 12:48:54 PM	R38696
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/14/2016 12:48:54 PM	R38696
Surr: 1,2-Dichloroethane-d4	98.1	0	70-130		%Rec	1	11/14/2016 12:48:54 PM	R38696
Surr: 4-Bromofluorobenzene	92.6	0	70-130		%Rec	1	11/14/2016 12:48:54 PM	R38696
Surr: Dibromofluoromethane	110	0	70-130		%Rec	1	11/14/2016 12:48:54 PM	R38696
Surr: Toluene-d8	98.5	0	70-130		%Rec	1	11/14/2016 12:48:54 PM	R38696

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A39111**	RunNo: **39111**
Prep Date:	Analysis Date: **12/2/2016**	SeqNo: **1224109** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A39111**	RunNo: **39111**
Prep Date:	Analysis Date: **12/2/2016**	SeqNo: **1224110** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.1	85	115			
Cadmium	0.49	0.0020	0.5000	0	97.5	85	115			
Calcium	51	1.0	50.00	0	102	85	115			
Chromium	0.48	0.0060	0.5000	0	95.9	85	115			
Copper	0.48	0.0060	0.5000	0	96.2	85	115			
Iron	0.48	0.020	0.5000	0	96.1	85	115			
Magnesium	51	1.0	50.00	0	103	85	115			
Manganese	0.47	0.0020	0.5000	0	94.7	85	115			
Silver	0.097	0.0050	0.1000	0	97.1	85	115			
Zinc	0.47	0.010	0.5000	0	94.9	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A39111**	RunNo: **39111**
Prep Date:	Analysis Date: **12/2/2016**	SeqNo: **1224111** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0016	0.0020	0.002000	0	82.0	50	150			J
Cadmium	0.0020	0.0020	0.002000	0	98.0	50	150			J
Calcium	0.56	1.0	0.5000	0	111	50	150			J
Chromium	0.0063	0.0060	0.006000	0	105	50	150			
Copper	0.0067	0.0060	0.006000	0	111	50	150			
Iron	0.020	0.020	0.02000	0	99.3	50	150			J
Magnesium	0.55	1.0	0.5000	0	111	50	150			J
Manganese	0.0021	0.0020	0.002000	0	104	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID	**LLLCS-A**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**A39111**	RunNo:	**39111**					
Prep Date:		Analysis Date:	**12/2/2016**	SeqNo:	**1224111**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.0048	0.0050	0.005000	0	96.2	50	150			J
Zinc	0.0058	0.010	0.005000	0	115	50	150			J

Sample ID	**1611492-001FMS**	SampType:	**MS**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**MKTF-17**	Batch ID:	**A39111**	RunNo:	**39111**					
Prep Date:		Analysis Date:	**12/2/2016**	SeqNo:	**1224124**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.98	0.0020	0.5000	0.5229	91.2	70	130			
Cadmium	0.48	0.0020	0.5000	0	95.9	70	130			
Chromium	0.47	0.0060	0.5000	0	94.1	70	130			
Copper	0.50	0.0060	0.5000	0	99.0	70	130			
Iron	0.68	0.020	0.5000	0.2146	92.5	70	130			
Magnesium	71	1.0	50.00	21.25	99.6	70	130			
Silver	0.089	0.0050	0.1000	0	89.4	70	130			
Zinc	0.47	0.010	0.5000	0	93.0	70	130			

Sample ID	**1611492-001FMSD**	SampType:	**MSD**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**MKTF-17**	Batch ID:	**A39111**	RunNo:	**39111**					
Prep Date:		Analysis Date:	**12/2/2016**	SeqNo:	**1224125**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.97	0.0020	0.5000	0.5229	90.3	70	130	0.460	20	
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130	0.169	20	
Chromium	0.47	0.0060	0.5000	0	93.7	70	130	0.345	20	
Copper	0.49	0.0060	0.5000	0	98.6	70	130	0.492	20	
Iron	0.69	0.020	0.5000	0.2146	95.0	70	130	1.84	20	
Magnesium	71	1.0	50.00	21.25	100	70	130	0.528	20	
Silver	0.088	0.0050	0.1000	0	88.1	70	130	1.49	20	
Zinc	0.46	0.010	0.5000	0	92.8	70	130	0.282	20	

Sample ID	**1611492-001FMS**	SampType:	**MS**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**MKTF-17**	Batch ID:	**A39111**	RunNo:	**39111**					
Prep Date:		Analysis Date:	**12/2/2016**	SeqNo:	**1224127**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	104.3	97.6	70	130			
Manganese	4.9	0.010	2.500	2.735	85.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID	**1611492-001FMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**MKTF-17**	Batch ID:	**A39111**		RunNo:	**39111**				
Prep Date:		Analysis Date:	**12/2/2016**		SeqNo:	**1224128**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	104.3	97.8	70	130	0.152	20	
Manganese	4.9	0.010	2.500	2.735	85.7	70	130	0.116	20	

Sample ID	**MB-A**	SampType:	**MBLK**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**PBW**	Batch ID:	**A39164**		RunNo:	**39164**				
Prep Date:		Analysis Date:	**12/5/2016**		SeqNo:	**1225227**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	**LLLCS-A**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**BatchQC**	Batch ID:	**A39164**		RunNo:	**39164**				
Prep Date:		Analysis Date:	**12/5/2016**		SeqNo:	**1225228**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0025	0.0020	0.002000	0	125	50	150			
Cadmium	0.0025	0.0020	0.002000	0	124	50	150			
Chromium	0.0065	0.0060	0.006000	0	108	50	150			
Copper	0.0073	0.0060	0.006000	0	122	50	150			
Iron	0.024	0.020	0.02000	0	118	50	150			
Manganese	0.0022	0.0020	0.002000	0	110	50	150			
Silver	0.0053	0.0050	0.005000	0	105	50	150			
Zinc	0.0064	0.010	0.005000	0	127	50	150			J

Sample ID	**LCS-A**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Dissolved Metals**				
Client ID:	**LCSW**	Batch ID:	**A39164**		RunNo:	**39164**				
Prep Date:		Analysis Date:	**12/5/2016**		SeqNo:	**1225229**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.9	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.2	85	115			
Chromium	0.48	0.0060	0.5000	0	96.9	85	115			
Copper	0.49	0.0060	0.5000	0	98.5	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A39164**	RunNo: **39164**
Prep Date:	Analysis Date: **12/5/2016**	SeqNo: **1225229** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.49	0.020	0.5000	0	97.6	85	115			
Manganese	0.48	0.0020	0.5000	0	95.9	85	115			
Silver	0.098	0.0050	0.1000	0	97.6	85	115			
Zinc	0.48	0.010	0.5000	0	96.9	85	115			

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A39177**	RunNo: **39177**
Prep Date:	Analysis Date: **12/6/2016**	SeqNo: **1225881** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A39177**	RunNo: **39177**
Prep Date:	Analysis Date: **12/6/2016**	SeqNo: **1225882** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.1	85	115			
Calcium	51	1.0	50.00	0	103	85	115			
Iron	0.49	0.020	0.5000	0	97.4	85	115			
Magnesium	52	1.0	50.00	0	103	85	115			
Manganese	0.49	0.0020	0.5000	0	97.2	85	115			
Potassium	51	1.0	50.00	0	102	85	115			
Sodium	51	1.0	50.00	0	102	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A39177**	RunNo: **39177**
Prep Date:	Analysis Date: **12/6/2016**	SeqNo: **1225883** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0021	0.0020	0.002000	0	106	50	150			
Calcium	0.54	1.0	0.5000	0	108	50	150			J
Iron	0.022	0.020	0.02000	0	109	50	150			
Magnesium	0.55	1.0	0.5000	0	110	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID	**LLLCS-A**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**A39177**	RunNo:	**39177**					
Prep Date:		Analysis Date:	**12/6/2016**	SeqNo:	**1225883**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	0.0021	0.0020	0.002000	0	106	50	150			
Potassium	0.58	1.0	0.5000	0	116	50	150			J
Sodium	0.57	1.0	0.5000	0	114	50	150			J

Sample ID	**1611492-001FMS**	SampType:	**MS**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**MKTF-17**	Batch ID:	**A39177**	RunNo:	**39177**					
Prep Date:		Analysis Date:	**12/6/2016**	SeqNo:	**1226086**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	52	1.0	50.00	0.8473	103	70	130			

Sample ID	**1611492-001FMSD**	SampType:	**MSD**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**MKTF-17**	Batch ID:	**A39177**	RunNo:	**39177**					
Prep Date:		Analysis Date:	**12/6/2016**	SeqNo:	**1226087**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	52	1.0	50.00	0.8473	102	70	130	0.190	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID **MB-28977**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **28977**	RunNo: **39164**
Prep Date: **12/2/2016**	Analysis Date: **12/5/2016**	SeqNo: **1225287** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LLLCS-28977**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **28977**	RunNo: **39164**
Prep Date: **12/2/2016**	Analysis Date: **12/5/2016**	SeqNo: **1225288** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0023	0.0020	0.002000	0	116	50	150			
Cadmium	0.0024	0.0020	0.002000	0	122	50	150			
Chromium	0.0055	0.0060	0.006000	0	91.5	50	150			J
Copper	0.0087	0.0060	0.006000	0	146	50	150			
Iron	0.023	0.020	0.02000	0	114	50	150			
Manganese	0.0021	0.0020	0.002000	0	103	50	150			
Silver	0.0050	0.0050	0.005000	0	99.8	50	150			J
Zinc	0.0052	0.010	0.005000	0	104	50	150			J

Sample ID **LCS-28977**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **28977**	RunNo: **39164**
Prep Date: **12/2/2016**	Analysis Date: **12/5/2016**	SeqNo: **1225292** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.0020	0.5000	0	94.4	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.8	85	115			
Chromium	0.47	0.0060	0.5000	0	93.7	85	115			
Copper	0.50	0.0060	0.5000	0	99.6	85	115			
Iron	0.47	0.020	0.5000	0	94.2	85	115			
Manganese	0.46	0.0020	0.5000	0	92.8	85	115			
Silver	0.099	0.0050	0.1000	0	99.4	85	115			
Zinc	0.46	0.010	0.5000	0	91.2	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID	**1611492-001GMS**	SampType: **MS**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-17**	Batch ID: **28977**		RunNo: **39164**					
Prep Date:	**12/2/2016**	Analysis Date: **12/5/2016**		SeqNo: **1225294**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.48	0.0020	0.5000	0	96.8	70	130			
Chromium	0.47	0.0060	0.5000	0	94.2	70	130			
Copper	0.52	0.0060	0.5000	0	104	70	130			
Silver	0.079	0.0050	0.1000	0	78.8	70	130			
Zinc	0.45	0.010	0.5000	0.006800	88.8	70	130			

Sample ID	**1611492-001GMSD**	SampType: **MSD**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-17**	Batch ID: **28977**		RunNo: **39164**					
Prep Date:	**12/2/2016**	Analysis Date: **12/5/2016**		SeqNo: **1225295**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.49	0.0020	0.5000	0	97.4	70	130	0.637	20	
Chromium	0.47	0.0060	0.5000	0	94.5	70	130	0.280	20	
Copper	0.52	0.0060	0.5000	0	105	70	130	0.329	20	
Silver	0.072	0.0050	0.1000	0	71.6	70	130	9.47	20	
Zinc	0.45	0.010	0.5000	0.006800	89.2	70	130	0.542	20	

Sample ID	**1611492-001GMS**	SampType: **MS**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-17**	Batch ID: **28977**		RunNo: **39164**					
Prep Date:	**12/2/2016**	Analysis Date: **12/5/2016**		SeqNo: **1225297**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.1	0.010	0.5000	0.6022	103	70	130			
Manganese	3.3	0.010	0.5000	2.787	104	70	130			

Sample ID	**1611492-001GMSD**	SampType: **MSD**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-17**	Batch ID: **28977**		RunNo: **39164**					
Prep Date:	**12/2/2016**	Analysis Date: **12/5/2016**		SeqNo: **1225298**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.1	0.010	0.5000	0.6022	93.7	70	130	4.34	20	
Manganese	3.2	0.010	0.5000	2.787	83.1	70	130	3.25	20	

Sample ID	**1611492-002GMS**	SampType: **MS**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-19**	Batch ID: **28977**		RunNo: **39164**					
Prep Date:	**12/2/2016**	Analysis Date: **12/5/2016**		SeqNo: **1225300**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.46	0.0020	0.5000	0	92.0	70	130			
Chromium	0.44	0.0060	0.5000	0.008810	87.2	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID **1611492-002GMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **MKTF-19**	Batch ID: **28977**	RunNo: **39164**
Prep Date: **12/2/2016**	Analysis Date: **12/5/2016**	SeqNo: **1225300** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.51	0.0060	0.5000	0.01529	98.1	70	130			
Zinc	0.49	0.010	0.5000	0.07039	83.2	70	130			

Sample ID **1611492-002GMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **MKTF-19**	Batch ID: **28977**	RunNo: **39164**
Prep Date: **12/2/2016**	Analysis Date: **12/5/2016**	SeqNo: **1225301** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.47	0.0020	0.5000	0	93.6	70	130	1.74	20	
Chromium	0.45	0.0060	0.5000	0.008810	89.0	70	130	2.09	20	
Copper	0.51	0.0060	0.5000	0.01529	99.8	70	130	1.68	20	
Zinc	0.50	0.010	0.5000	0.07039	85.2	70	130	2.05	20	

Sample ID **1611492-002GMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **MKTF-19**	Batch ID: **28977**	RunNo: **39164**
Prep Date: **12/2/2016**	Analysis Date: **12/5/2016**	SeqNo: **1225306** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	2.6	0.010	0.5000	2.162	90.3	70	130			
Manganese	3.0	0.010	0.5000	2.608	84.3	70	130			

Sample ID **1611492-002GMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **MKTF-19**	Batch ID: **28977**	RunNo: **39164**
Prep Date: **12/2/2016**	Analysis Date: **12/5/2016**	SeqNo: **1225307** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	2.7	0.010	0.5000	2.162	102	70	130	2.25	20	
Manganese	3.1	0.010	0.5000	2.608	97.0	70	130	2.08	20	

Sample ID **1611492-002GMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **MKTF-19**	Batch ID: **28977**	RunNo: **39177**
Prep Date: **12/2/2016**	Analysis Date: **12/6/2016**	SeqNo: **1226061** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.012	0.0050	0.1000	0	12.0	70	130			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID	**1611492-002GMSD**	SampType: **MSD**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-19**	Batch ID: **28977**			RunNo: **39177**					
Prep Date:	**12/2/2016**	Analysis Date: **12/6/2016**			SeqNo: **1226062**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.012	0.0050	0.1000	0	12.2	70	130	1.32	20	S

Sample ID	**1611492-001GMS**	SampType: **MS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-17**	Batch ID: **28977**			RunNo: **39457**					
Prep Date:	**12/2/2016**	Analysis Date: **12/16/2016**			SeqNo: **1235846**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	3.2	0.10	0.5000	1.926	247	70	130			S

Sample ID	**1611492-001GMSD**	SampType: **MSD**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**MKTF-17**	Batch ID: **28977**			RunNo: **39457**					
Prep Date:	**12/2/2016**	Analysis Date: **12/16/2016**			SeqNo: **1235847**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	3.1	0.10	0.5000	1.926	228	70	130	3.07	20	S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B38954**	RunNo: **38954**
Prep Date:	Analysis Date: **11/23/2016**	SeqNo: **1218542** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Lead	0.013	0.00050	0.01250	0	102	85	115			
Selenium	0.025	0.0010	0.02500	0	99.5	85	115			
Uranium	0.012	0.00050	0.01250	0	98.8	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B38954**	RunNo: **38954**
Prep Date:	Analysis Date: **11/23/2016**	SeqNo: **1218543** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00092	0.0010	0.001000	0	91.5	50	150			J
Lead	0.00051	0.00050	0.0005000	0	102	50	150			
Selenium	0.00092	0.0010	0.001000	0	92.3	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	97.7	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B38954**	RunNo: **38954**
Prep Date:	Analysis Date: **11/23/2016**	SeqNo: **1218544** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B39007**	RunNo: **39007**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1220003** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.4	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			
Uranium	0.012	0.00050	0.01250	0	96.6	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B39007**	RunNo: **39007**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1220007** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00097	0.0010	0.001000	0	97.5	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B39007**	RunNo: **39007**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1220007** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.0010	0.0010	0.001000	0	104	50	150			
Uranium	0.00049	0.00050	0.0005000	0	98.6	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B39007**	RunNo: **39007**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1220008** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID	**1611492-003GMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-34**	Batch ID:	**28977**		RunNo:	**39143**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/5/2016**		SeqNo:	**1224656**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.015	0.00050	0.01250	0.0008682	111	70	130			

Sample ID	**MB-28977**	SampType:	**MBLK**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**PBW**	Batch ID:	**28977**		RunNo:	**39143**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/5/2016**		SeqNo:	**1224657**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-28977**	SampType:	**LCS**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**LCSW**	Batch ID:	**28977**		RunNo:	**39143**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/5/2016**		SeqNo:	**1224659**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.5	85	115			
Lead	0.012	0.00050	0.01250	0	98.2	85	115			
Selenium	0.024	0.0010	0.02500	0	97.2	85	115			
Uranium	0.012	0.00050	0.01250	0	97.5	85	115			

Sample ID	**MSLLLCS-28977**	SampType:	**LCSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**BatchQC**	Batch ID:	**28977**		RunNo:	**39143**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/5/2016**		SeqNo:	**1224661**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00099	0.0010	0.001000	0	98.8	50	150			J
Lead	0.00049	0.00050	0.0005000	0	97.2	50	150			J
Selenium	0.00092	0.0010	0.001000	0	92.0	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	97.2	50	150			J

Sample ID	**1611492-004GMSDL**	SampType:	**MSDLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-18**	Batch ID:	**28977**		RunNo:	**39143**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/5/2016**		SeqNo:	**1225624**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0010	0.02500	0.003264	102	70	130	1.30	20	
Lead	0.014	0.00050	0.01250	0.0004068	110	70	130	0.596	20	
Uranium	0.016	0.00050	0.01250	0.001106	121	70	130	0.103	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID	**1611492-004GMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-18**	Batch ID:	**28977**		RunNo:	**39143**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/5/2016**		SeqNo:	**1225625**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.028	0.0010	0.02500	0.003264	100	70	130			
Lead	0.014	0.00050	0.01250	0.0004068	109	70	130			
Uranium	0.016	0.00050	0.01250	0.001106	121	70	130			

Sample ID	**1611492-003GMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**MKTF-34**	Batch ID:	**28977**		RunNo:	**39218**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/7/2016**		SeqNo:	**1227105**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.030	0.0050	0.02500	0.002649	111	70	130			
Uranium	0.052	0.0025	0.01250	0.03795	113	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID	**MB-28845**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**28845**	RunNo:	**38959**					
Prep Date:	**11/23/2016**	Analysis Date:	**11/23/2016**	SeqNo:	**1218431**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-28845**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**28845**	RunNo:	**38959**					
Prep Date:	**11/23/2016**	Analysis Date:	**11/23/2016**	SeqNo:	**1218432**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	101	80	120			

Sample ID	**1611492-001GMS**	SampType:	**MS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**MKTF-17**	Batch ID:	**28845**	RunNo:	**38959**					
Prep Date:	**11/23/2016**	Analysis Date:	**11/23/2016**	SeqNo:	**1218447**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.0010	0.005000	0	101	75	125			

Sample ID	**1611492-001GMSD**	SampType:	**MSD**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**MKTF-17**	Batch ID:	**28845**	RunNo:	**38959**					
Prep Date:	**11/23/2016**	Analysis Date:	**11/23/2016**	SeqNo:	**1218448**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.0010	0.005000	0	99.8	75	125	1.18	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R38701**	RunNo: **38701**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208773** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R38701**	RunNo: **38701**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208774** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.8	0.50	5.000	0	95.9	90	110			
Bromide	2.5	0.10	2.500	0	98.6	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.5	90	110			
Sulfate	9.9	0.50	10.00	0	99.1	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A38771**	RunNo: **38771**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211379** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A38771**	RunNo: **38771**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211380** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.3	0.20	3.500	0	95.5	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID	**MB-28775**	SampType:	**MBLK**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**PBW**	Batch ID:	**28775**	RunNo:	**38889**					
Prep Date:	**11/21/2016**	Analysis Date:	**11/21/2016**	SeqNo:	**1215711**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID	**LCS-28775**	SampType:	**LCS**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**LCSW**	Batch ID:	**28775**	RunNo:	**38889**					
Prep Date:	**11/21/2016**	Analysis Date:	**11/21/2016**	SeqNo:	**1215713**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.11	0.010	0.1000	0	105	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID **MB-28621**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **28621**	RunNo: **38670**
Prep Date: **11/11/2016**	Analysis Date: **11/14/2016**	SeqNo: **1208052** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		100	77.1	144			

Sample ID **LCS-28621**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **28621**	RunNo: **38670**
Prep Date: **11/11/2016**	Analysis Date: **11/14/2016**	SeqNo: **1208053** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.5	1.0	5.000	0	90.6	63.2	155			
Surr: DNOP	0.51		0.5000		101	77.1	144			

Sample ID **1611492-001CMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **MKTF-17**	Batch ID: **28621**	RunNo: **38686**
Prep Date: **11/11/2016**	Analysis Date: **11/14/2016**	SeqNo: **1208297** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	7.4	1.0	5.000	1.262	123	79.6	148			
Surr: DNOP	0.53		0.5000		106	77.1	144			

Sample ID **1611492-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **MKTF-17**	Batch ID: **28621**	RunNo: **38686**
Prep Date: **11/11/2016**	Analysis Date: **11/14/2016**	SeqNo: **1208298** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	7.0	1.0	5.000	1.262	115	79.6	148	5.46	20	
Surr: DNOP	0.50		0.5000		101	77.1	144	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G38599**	RunNo: **38599**
Prep Date:	Analysis Date: **11/10/2016**	SeqNo: **1206149** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		89.5	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G38599**	RunNo: **38599**
Prep Date:	Analysis Date: **11/10/2016**	SeqNo: **1206150** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	92.4	80	120			
Surr: BFB	19		20.00		94.8	66.4	120			

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **B38637**	RunNo: **38637**
Prep Date:	Analysis Date: **11/11/2016**	SeqNo: **1207583** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		90.7	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **B38637**	RunNo: **38637**
Prep Date:	Analysis Date: **11/11/2016**	SeqNo: **1207584** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.45	0.050	0.5000	0	91.0	80	120			
Surr: BFB	18		20.00		91.2	66.4	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R38696**	RunNo: **38696**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208466** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	70	130			
Toluene	20	1.0	20.00	0	100	70	130			
Chlorobenzene	19	1.0	20.00	0	92.9	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	112	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	94.1	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.5	70	130			
Surr: 4-Bromofluorobenzene	9.0		10.00		90.2	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	9.9		10.00		98.7	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38696**	RunNo: **38696**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208472** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	0.14	1.0								J
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38696**	RunNo: **38696**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208472** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	0.49	1.0								J
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	0.30	3.0								J
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	0.23	1.0								J
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38696**	RunNo: **38696**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208472** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.9	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.9	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.6		10.00		95.7	70	130			

Sample ID **1611492-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-17**	Batch ID: **R38696**	RunNo: **38696**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208508** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	860	5.0	100.0	729.3	126	70	130			E
Toluene	100	5.0	100.0	1.903	102	70	130			
Chlorobenzene	98	5.0	100.0	0	97.6	70	130			
1,1-Dichloroethene	99	5.0	100.0	0	99.0	70	130			
Trichloroethene (TCE)	86	5.0	100.0	0	86.2	70	130			
Surr: 1,2-Dichloroethane-d4	47		50.00		94.2	70	130			
Surr: 4-Bromofluorobenzene	50		50.00		100	70	130			
Surr: Dibromofluoromethane	45		50.00		90.5	70	130			
Surr: Toluene-d8	51		50.00		103	70	130			

Sample ID **1611492-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **MKTF-17**	Batch ID: **R38696**	RunNo: **38696**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208510** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	840	5.0	100.0	729.3	110	70	130	1.93	20	E
Toluene	100	5.0	100.0	1.903	99.2	70	130	3.00	20	
Chlorobenzene	95	5.0	100.0	0	95.4	70	130	2.25	20	
1,1-Dichloroethene	97	5.0	100.0	0	96.6	70	130	2.44	20	
Trichloroethene (TCE)	83	5.0	100.0	0	83.4	70	130	3.35	20	
Surr: 1,2-Dichloroethane-d4	47		50.00		94.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	48		50.00		96.7	70	130	0	0	
Surr: Dibromofluoromethane	45		50.00		89.4	70	130	0	0	
Surr: Toluene-d8	53		50.00		106	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **W38715**	RunNo: **38715**
Prep Date:	Analysis Date: **11/15/2016**	SeqNo: **1209294** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	20	1.0	20.00	0	102	70	130			
Chlorobenzene	18	1.0	20.00	0	92.2	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	107	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	92.6	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.3	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	9.6		10.00		96.4	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **W38715**	RunNo: **38715**
Prep Date:	Analysis Date: **11/15/2016**	SeqNo: **1209295** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **W38715**	RunNo: **38715**
Prep Date:	Analysis Date: **11/15/2016**	SeqNo: **1209295** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	0.30	3.0								J
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **W38715**	RunNo: **38715**
Prep Date:	Analysis Date: **11/15/2016**	SeqNo: **1209295** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		94.5	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.7		10.00		96.8	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R38763**	RunNo: **38763**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211136** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.7	70	130			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		98.9	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.3	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	10		10.00		99.7	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38763**	RunNo: **38763**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211137** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.1	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.0	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	9.9		10.00		99.2	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**

22-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (MKTF)

Sample ID **1611492-001dms**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **MKTF-17**	Batch ID: **28584**	RunNo: **38737**
Prep Date: **11/11/2016**	Analysis Date: **11/15/2016**	SeqNo: **1210289** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	57	10	100.0	0	56.7	27.6	123			
4-Chloro-3-methylphenol	64	10	200.0	0	32.2	29.3	126			
2-Chlorophenol	66	10	200.0	0	32.8	15	133			
1,4-Dichlorobenzene	41	10	100.0	0	41.3	17.6	127			
2,4-Dinitrotoluene	59	10	100.0	0	59.1	38.9	98.5			
N-Nitrosodi-n-propylamine	62	10	100.0	0	62.0	25.9	131			
4-Nitrophenol	43	10	200.0	0	21.4	15	102			
Pentachlorophenol	69	20	200.0	0	34.3	15	120			
Phenol	36	10	200.0	3.460	16.0	15	100			
Pyrene	46	10	100.0	0	45.8	22.8	126			
1,2,4-Trichlorobenzene	47	10	100.0	0	47.3	15	143			
Surr: 2-Fluorophenol	43		200.0		21.4	15	98.1			
Surr: Phenol-d5	32		200.0		16.2	15	80.7			
Surr: 2,4,6-Tribromophenol	73		200.0		36.7	15	112			
Surr: Nitrobenzene-d5	58		100.0		57.9	27.2	90.7			
Surr: 2-Fluorobiphenyl	49		100.0		48.6	23.3	85.6			
Surr: 4-Terphenyl-d14	28		100.0		28.0	27.6	107			

Sample ID **1611492-001dmsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **MKTF-17**	Batch ID: **28584**	RunNo: **38737**
Prep Date: **11/11/2016**	Analysis Date: **11/15/2016**	SeqNo: **1210290** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	70	10	100.0	0	69.6	27.6	123	20.5	31.3	
4-Chloro-3-methylphenol	80	10	200.0	0	40.1	29.3	126	22.0	29	
2-Chlorophenol	75	10	200.0	0	37.4	15	133	13.0	28.4	
1,4-Dichlorobenzene	45	10	100.0	0	45.4	17.6	127	9.36	28.2	
2,4-Dinitrotoluene	73	10	100.0	0	72.8	38.9	98.5	20.8	22.9	
N-Nitrosodi-n-propylamine	69	10	100.0	0	69.2	25.9	131	11.0	28.8	
4-Nitrophenol	53	10	200.0	0	26.4	15	102	20.8	41.5	
Pentachlorophenol	91	20	200.0	0	45.5	15	120	28.0	45.1	
Phenol	43	10	200.0	3.460	19.9	15	100	19.6	33.9	
Pyrene	67	10	100.0	0	67.1	22.8	126	37.6	33.6	R
1,2,4-Trichlorobenzene	57	10	100.0	0	56.5	15	143	17.8	28.2	
Surr: 2-Fluorophenol	48		200.0		24.1	15	98.1	0	0	
Surr: Phenol-d5	38		200.0		19.1	15	80.7	0	0	
Surr: 2,4,6-Tribromophenol	99		200.0		49.7	15	112	0	0	
Surr: Nitrobenzene-d5	67		100.0		66.9	27.2	90.7	0	0	
Surr: 2-Fluorobiphenyl	62		100.0		62.4	23.3	85.6	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**
22-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Qtr (MKTF)

Sample ID **1611492-001dmsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **MKTF-17**	Batch ID: **28584**	RunNo: **38737**
Prep Date: **11/11/2016**	Analysis Date: **11/15/2016**	SeqNo: **1210290** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	49		100.0		48.8	27.6	107	0	0	

Sample ID **lcs-28584**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **28584**	RunNo: **38737**
Prep Date: **11/10/2016**	Analysis Date: **11/15/2016**	SeqNo: **1210297** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	76	10	100.0	0	75.5	42.9	100			
4-Chloro-3-methylphenol	170	10	200.0	0	86.0	36.2	110			
2-Chlorophenol	140	10	200.0	0	71.8	33.4	97.8			
1,4-Dichlorobenzene	61	10	100.0	0	60.9	32.8	79.3			
2,4-Dinitrotoluene	71	10	100.0	0	70.8	34.9	107			
N-Nitrosodi-n-propylamine	74	10	100.0	0	73.5	30.7	111			
4-Nitrophenol	120	10	200.0	0	61.3	15	91.9			
Pentachlorophenol	130	20	200.0	0	64.8	33.3	93.5			
Phenol	120	10	200.0	0	60.2	20.9	86.4			
Pyrene	66	10	100.0	0	66.1	45.6	111			
1,2,4-Trichlorobenzene	73	10	100.0	0	72.8	38.7	88.2			
Surr: 2-Fluorophenol	130		200.0		66.1	15	98.1			
Surr: Phenol-d5	130		200.0		63.4	15	80.7			
Surr: 2,4,6-Tribromophenol	160		200.0		79.1	15	112			
Surr: Nitrobenzene-d5	72		100.0		71.9	27.2	90.7			
Surr: 2-Fluorobiphenyl	72		100.0		72.2	23.3	85.6			
Surr: 4-Terphenyl-d14	67		100.0		67.3	27.6	107			

Sample ID **mb-28584**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28584**	RunNo: **38737**
Prep Date: **11/10/2016**	Analysis Date: **11/15/2016**	SeqNo: **1210298** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**
22-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Qtr (MKTF)

Sample ID **mb-28584**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28584**	RunNo: **38737**
Prep Date: **11/10/2016**	Analysis Date: **11/15/2016**	SeqNo: **1210298** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzoic acid	11	20								J
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	7.1	10								J
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	2.7	10								J
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	7.6	10								J
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								

Qualifiers:

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QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1611492**
22-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Qtr (MKTF)

Sample ID **mb-28584**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **28584**	RunNo: **38737**
Prep Date: **11/10/2016**	Analysis Date: **11/15/2016**	SeqNo: **1210298** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	79		200.0		39.5	15	98.1			
Surr: Phenol-d5	61		200.0		30.4	15	80.7			
Surr: 2,4,6-Tribromophenol	110		200.0		56.8	15	112			
Surr: Nitrobenzene-d5	55		100.0		54.7	27.2	90.7			
Surr: 2-Fluorobiphenyl	45		100.0		45.2	23.3	85.6			
Surr: 4-Terphenyl-d14	52		100.0		51.9	27.6	107			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1611492** RcptNo: 1

Received by/date: AT 11/8/16

Logged By: **Anne Thorne** 11/8/2016 3:55:00 PM Anne Thorne

Completed By: **Anne Thorne** 11/9/2016 Anne Thorne

Reviewed By: aJ 11/10/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 23
(<2 or >12 unless noted)
Adjusted? No
Checked by: JC

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☑ NA ☐

Person Notified: Date
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
3	1.0	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: WESTERN REFINING SW, INC.

GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING RD

GALLUP NM 87301

Phone #: 505-722-0231

Email or Fax#: CHERYL.JOHNSON@WNR.COM

QA/QC Package: Standard ☒ Level 4 (Full Validation)

Accreditation: ☒ NELAP ☐ Other

EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: 2016 4TH QTR (MKTF)

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611492	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS / ANIONS	WQCC METALS	(TOTAL & DISSOLVED)		Air Bubbles (Y or N)
11/16	0710	WATER	MKTF-17	40 mL VOA-5	HCL	-001			✓							✓						
				1L AMBER-2	NEAT	-001											✓					
				250 mL AMBER-1	NEAT	-001			✓													
				500 mL PLASTIC-1	HNO_3	-001													✓			
				125 mL PLASTIC-1	HNO_3	-001												✓	✓			
				125 mL PLASTIC-1	H_2SO_4	-001												✓				
				500 mL PLASTIC-1	NEAT	-001													✓			
	0745		MKTF-19	40 mL VOA-5	HCL	-002			✓							✓						
				1L AMBER-1	NEAT	-002											✓		AP			
				250 mL AMBER-1	NEAT	-002			✓										✓			
				500 mL PLASTIC-1	HNO_3	-002													✓			
				125 mL PLASTIC-1	HNO_3	-002												✓	✓			

Date	Time	Relinquished by:	Received by:	Date	Time
11/16	1115			11/8/16	1400
11/16	1555			11/08/16	1555

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: WESTERN REFINING SW, INC.

GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING RD

GALLUP, NM 87301

Phone #: 505-722-0231

Email or Fax#: CHERYL.JOHNSON@WNR.COM

QA/QC Package: Standard ☒ Level 4 (Full Validation)

Accreditation: ☒ NELAP ☐ Other

EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: 2016 4TH QTR (MKTF)

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HEAL No. 1611492

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
11/6	0745	WATER	MKTF-19	125 mL Plastic-1	H_2SO_4	-002
	↓		↓	500 mL Plastic-1	NEAT	-002
	0825		MKTF-34	40 mL VOA-5	HCL	-003
				1 L Amber-1	NEAT	-003
				250 mL Amber-1	NEAT	-003
				500 mL Plastic-1	HNO_3	-003
				125 mL Plastic-1	HNO_3	-003
				125 mL Plastic-1	H_2SO_4	-003
				500 mL Plastic-1	NEAT	-003 -004 (11/10/16)
	0910		MKTF-18	40 mL VOA-5	HCL	-004 -005 (11/10/16)
				1 L Amber-1	NEAT	-004 -005
				250 mL Amber-1	NEAT	-004 -005

Analysis Request	
BTEX + MTBE + TMB's (8021)	
BTEX + MTBE + TPH (Gas only)	
TPH 8015B (GRO / DRO / MRO)	✓
TPH (Method 418.1)	
EDB (Method 504.1)	
PAH's (8310 or 8270 SIMS)	
RCRA 8 Metals	
Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	
8081 Pesticides / 8082 PCB's	
8260B (VOA)	✓
8270 (Semi-VOA)	✓
MAJOR CATIONS/ANIONS	✓
WQCC METALS	✓
(TOTAL & DISSOLVED)	
Air Bubbles (Y or N)	

Date	Time	Relinquished by:	Received by:	Date	Time
11/6	1115			11/8/16	1400
11/6	1553			11/08/16	1555

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP NM 87301
Phone #: 505-722-0231
Mail or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard ☒ Level 4 (Full Validation)
Accreditation: ☒ NELAP ☐ Other
EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2016 4TH QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611492	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations / Anions	WQCC Metals	(Total & Dissolved)	BTEX/G,2-DIBROMOMETHANE	Air Bubbles (Y or N)
5/16	0910	WATER	MKTF-18	500 ML PLASTIC-1	HNO_3	-004 AT 5/16/16 -005													✓			
				125 ML PLASTIC-1	HNO_3	-004 -005												✓	✓			
				125 ML PLASTIC-1	H_2SO_4	-004 -005												✓				
				500 ML PLASTIC-1	NEAT	-004 -005													✓			
	0945	WATER	MKTF-36	40 ML VOA-5	HCL	-005			✓							✓						
				40 ML VOA-3	HCL	-005															✓	
				1L AMBER-1	NEAT	-005											✓					
				250 ML AMBER-1	NEAT	-005			✓													
				500 ML PLASTIC-1	HNO_3	-005													✓			
				125 ML PLASTIC-1	HNO_3	-005												✓	✓			
				125 ML PLASTIC-1	H_2SO_4	-005												✓				
				500 ML PLASTIC-1	NEAT	-005													✓			

Date	Time	Relinquished by:	Received by:	Date	Time
5/16	1115			5/16/16	1900
5/16	1555			5/16/16	1555

Remarks:

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GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard / [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 4TH QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611492	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Major Cations/Anions	WQCC Metals	(Total & Dissolved)	8011 (1,2-Dibromoethane)	Air Bubbles (Y or N)
/16	1010	WATER	FB1108816	40 mL VOA-5	HCL	-006			✓							✓						
				40 mL VOA-3	HCL	-006															✓	
				1 L AMBER-1	NEAT	-006											✓					
				250 mL AMBER-1	NEAT	-006			✓													
				500 mL PLASTIC-1	HNO_3	-006													✓			
				125 mL PLASTIC-1	HNO_3	-006												✓	✓			
				125 mL PLASTIC-1	H_2SO_4	-006												✓				
				500 mL PLASTIC-1	NEAT	-006													✓			
	—	WATER	DUP06	40 mL VOA-5	HCL	-007			✓							✓						
				1 L AMBER	NEAT	-007											✓					
				250 mL AMBER	NEAT	-007			✓													

Date: /16 Time: 1115 Relinquished by: [signature]
Received by: [signature] Date: 11/8/16 Time: 1400

Date: /16 Time: 15:55 Relinquished by: [signature]
Received by: [signature] Date: 11/08/16 Time: 1555

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client:	WESTERN REFINING SW, INC. GALLUP REFINERY
Mailing Address:	92 GIANT CROSSING RD GALLUP, NM 87301
Phone #:	505-722-0231
Mail or Fax#:	CHERYL.JOHNSON@WNR
QA/QC Package:	☐ Standard ☒ Level 4 (Full Validation)
Accreditation	☒ NELAP ☐ Other
EDD (Type)	EXCEL
Turn-Around Time:	☒ Standard ☐ Rush
Project Name:	2016 4TH QTR (OW)
Project #:	
Project Manager:	CHERYL JOHNSON
Sampler:	TRACY PAYNE
On Ice:	☒ Yes ☐ No
Sample Temperature:	1.0

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611492	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	WQCC METALS (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
3/16	1450	WATER	OW-58	40 ML VOA-5	HCL	008			✓							✓					
				250 ML AMBER-1	NEAT	008			✓												
				500 ML PLASTIC-1	HNO_3	008												✓			
				125 ML PLASTIC-1	HNO_3	008												✓			
				500 ML PLASTIC-1	NEAT	008												✓			

Date	Time	Relinquished by:	Received by:	Date	Time
3/16	1115			11/8/16	1400
3/16	15:53			11/08/16	1555

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
EDD (Type) EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 4TH QTR (MKTF)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611492	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	MAJOR CATIONS/ANIONS	WQCC METALS	(TOTAL & DISSOLVED)		Air Bubbles (Y or N)
3/16	—	WATER	DUP06	1P 125 mL PLASTIC-1	H_2SO_4	-007 -009												✓				
				125 mL PLASTIC-1	HNO_3	-007 -009													✓			
				500 mL PLASTIC-1	HNO_3	-007 -009												✓	✓			
				500 mL PLASTIC-1	NEAT	-007 -009													✓			
3/16	—	WATER	TRIP BLANK	40 mL VOA-4	HCL	-009 -010			✓							✓						

AT 11/09/16

Date	Time	Relinquished by:	Received by:	Date	Time
11/16	1115			11/8/16	1400
11/16	1555			11/08/16	1555

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 16, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 4th Qtr (OW) OrderNo.: 1611528

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 7 sample(s) on 11/9/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110916
Project: 2016 4th Qtr (OW)
Collection Date: 11/9/2016 9:55:00 AM
Lab ID: 1611528-001
Matrix: AQUEOUS
Received Date: 11/9/2016 4:45:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/14/2016 4:52:51 PM	28621
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/14/2016 4:52:51 PM	28621
Surr: DNOP	106	0	77.1-144		%Rec	1	11/14/2016 4:52:51 PM	28621
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/14/2016 12:47:47 PM	G38685
Surr: BFB	90.8	0	66.4-120		%Rec	1	11/14/2016 12:47:47 PM	G38685
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	ND	0.0013	0.0020		mg/L	1	12/6/2016 5:32:14 PM	B39177
Cadmium	ND	0.00075	0.0020		mg/L	1	12/6/2016 5:32:14 PM	B39177
Chromium	ND	0.0018	0.0060		mg/L	1	12/6/2016 5:32:14 PM	B39177
Copper	ND	0.0040	0.0060		mg/L	1	12/6/2016 5:32:14 PM	B39177
Iron	ND	0.020	0.020		mg/L	1	12/6/2016 5:32:14 PM	B39177
Manganese	ND	0.00032	0.0020		mg/L	1	12/6/2016 5:32:14 PM	B39177
Silver	ND	0.0028	0.0050		mg/L	1	12/6/2016 5:32:14 PM	B39177
Zinc	ND	0.0028	0.010		mg/L	1	12/8/2016 1:02:57 PM	A39247
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	ND	0.00079	0.0020		mg/L	1	12/8/2016 2:30:58 PM	28977
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 2:30:58 PM	28977
Chromium	ND	0.0027	0.0060		mg/L	1	12/8/2016 2:30:58 PM	28977
Copper	ND	0.0030	0.0060		mg/L	1	12/8/2016 2:30:58 PM	28977
Iron	ND	0.020	0.020		mg/L	1	12/8/2016 2:30:58 PM	28977
Manganese	ND	0.00027	0.0020		mg/L	1	12/8/2016 2:30:58 PM	28977
Silver	ND	0.0015	0.0050		mg/L	1	12/8/2016 2:30:58 PM	28977
Zinc	ND	0.0027	0.010		mg/L	1	12/8/2016 2:30:58 PM	28977
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	ND	0.00014	0.0010		mg/L	1	11/28/2016 3:45:09 PM	B39007
Lead	ND	0.00017	0.00050		mg/L	1	11/28/2016 3:45:09 PM	B39007
Selenium	ND	0.00021	0.0010		mg/L	1	11/28/2016 3:45:09 PM	B39007
Uranium	ND	0.000051	0.00050		mg/L	1	11/28/2016 3:45:09 PM	B39007
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.00021	0.0010		mg/L	1	12/5/2016 2:37:21 PM	28977
Lead	ND	0.000081	0.00050		mg/L	1	12/5/2016 2:37:21 PM	28977
Selenium	ND	0.00019	0.0010		mg/L	1	12/5/2016 2:37:21 PM	28977
Uranium	ND	0.00017	0.00050		mg/L	1	12/5/2016 2:37:21 PM	28977
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	0.000068	0.000053	0.00020	J	mg/L	1	11/29/2016 3:08:18 PM	28890

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110916
Project: 2016 4th Qtr (OW)
Collection Date: 11/9/2016 9:55:00 AM
Lab ID: 1611528-001 **Matrix:** AQUEOUS **Received Date:** 11/9/2016 4:45:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
Toluene	0.17	0.12	1.0	J	µg/L	1	11/14/2016 11:04:00 AM	R38681
Ethylbenzene	0.12	0.11	1.0	J	µg/L	1	11/14/2016 11:04:00 AM	R38681
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
Naphthalene	0.10	0.093	2.0	J	µg/L	1	11/14/2016 11:04:00 AM	R38681
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
2-Methylnaphthalene	0.18	0.16	4.0	J	µg/L	1	11/14/2016 11:04:00 AM	R38681
Acetone	ND	4.9	10		µg/L	1	11/14/2016 11:04:00 AM	R38681
Bromobenzene	ND	0.098	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
Bromoform	ND	0.10	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
Bromomethane	ND	0.78	3.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
2-Butanone	ND	0.74	10		µg/L	1	11/14/2016 11:04:00 AM	R38681
Carbon disulfide	ND	0.60	10		µg/L	1	11/14/2016 11:04:00 AM	R38681
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
Chloroethane	ND	0.19	2.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
Chloroform	ND	0.089	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
Chloromethane	ND	0.21	3.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
Dibromomethane	ND	0.12	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/14/2016 11:04:00 AM	R38681

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB110916
Project: 2016 4th Qtr (OW)
Collection Date: 11/9/2016 9:55:00 AM
Lab ID: 1611528-001
Matrix: AQUEOUS
Received Date: 11/9/2016 4:45:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
2-Hexanone	ND	0.84	10		µg/L	1	11/14/2016 11:04:00 AM	R38681
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/14/2016 11:04:00 AM	R38681
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
Styrene	ND	0.11	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/14/2016 11:04:00 AM	R38681
Xylenes, Total	0.58	0.37	1.5	J	µg/L	1	11/14/2016 11:04:00 AM	R38681
Surr: 1,2-Dichloroethane-d4	95.9	0	70-130		%Rec	1	11/14/2016 11:04:00 AM	R38681
Surr: 4-Bromofluorobenzene	99.7	0	70-130		%Rec	1	11/14/2016 11:04:00 AM	R38681
Surr: Dibromofluoromethane	98.1	0	70-130		%Rec	1	11/14/2016 11:04:00 AM	R38681
Surr: Toluene-d8	102	0	70-130		%Rec	1	11/14/2016 11:04:00 AM	R38681

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-55
Project: 2016 4th Qtr (OW)
Collection Date: 11/9/2016 10:40:00 AM
Lab ID: 1611528-002
Matrix: AQUEOUS
Received Date: 11/9/2016 4:45:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	3.4	0.69	1.0		mg/L	1	11/14/2016 5:20:04 PM	28621
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/14/2016 5:20:04 PM	28621
Surr: DNOP	109	0	77.1-144		%Rec	1	11/14/2016 5:20:04 PM	28621
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	51	2.5	5.0		mg/L	100	11/14/2016 1:12:28 PM	G38685
Surr: BFB	89.3	0	66.4-120		%Rec	100	11/14/2016 1:12:28 PM	G38685
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.62	0.0013	0.0020		mg/L	1	12/6/2016 5:34:28 PM	B39177
Cadmium	ND	0.00075	0.0020		mg/L	1	12/6/2016 5:34:28 PM	B39177
Chromium	ND	0.0018	0.0060		mg/L	1	12/6/2016 5:34:28 PM	B39177
Copper	ND	0.0040	0.0060		mg/L	1	12/6/2016 5:34:28 PM	B39177
Iron	3.8	0.20	0.20	*	mg/L	10	12/8/2016 1:12:54 PM	A39247
Manganese	4.4	0.0032	0.020	*	mg/L	10	12/8/2016 1:12:54 PM	A39247
Silver	ND	0.0028	0.0050		mg/L	1	12/6/2016 5:34:28 PM	B39177
Zinc	0.0094	0.0028	0.010	J	mg/L	1	12/8/2016 1:11:14 PM	A39247
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.85	0.00079	0.0020		mg/L	1	12/8/2016 2:33:10 PM	28977
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 2:33:10 PM	28977
Chromium	0.0057	0.0027	0.0060	J	mg/L	1	12/8/2016 2:33:10 PM	28977
Copper	0.0032	0.0030	0.0060	J	mg/L	1	12/8/2016 2:33:10 PM	28977
Iron	8.7	0.20	0.20	*	mg/L	10	12/9/2016 11:02:34 AM	28977
Manganese	4.5	0.0027	0.020	*	mg/L	10	12/9/2016 11:02:34 AM	28977
Silver	0.0062	0.0015	0.0050		mg/L	1	12/8/2016 2:33:10 PM	28977
Zinc	0.018	0.0027	0.010		mg/L	1	12/8/2016 2:33:10 PM	28977
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0075	0.00014	0.0010		mg/L	1	11/28/2016 3:48:12 PM	B39007
Lead	0.00021	0.00017	0.00050	J	mg/L	1	11/28/2016 3:48:12 PM	B39007
Selenium	0.0081	0.00021	0.0010		mg/L	1	11/28/2016 3:48:12 PM	B39007
Uranium	0.0074	0.000051	0.00050		mg/L	1	11/28/2016 3:48:12 PM	B39007
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0077	0.00021	0.0010		mg/L	1	12/5/2016 2:40:22 PM	28977
Lead	0.012	0.00041	0.0025		mg/L	5	12/7/2016 2:07:29 PM	28977
Selenium	0.0076	0.0037	0.020	J	mg/L	20	12/7/2016 2:12:38 PM	28977
Uranium	0.0070	0.00087	0.0025		mg/L	5	12/7/2016 2:07:29 PM	28977
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/29/2016 3:10:07 PM	28890

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-55
Project: 2016 4th Qtr (OW)
Collection Date: 11/9/2016 10:40:00 AM
Lab ID: 1611528-002 **Matrix:** AQUEOUS **Received Date:** 11/9/2016 4:45:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	11000	48	500		µg/L	500	11/14/2016 11:27:00 AM	R38681
Toluene	3200	5.9	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
Ethylbenzene	680	5.6	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
Methyl tert-butyl ether (MTBE)	1800	11	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
1,2,4-Trimethylbenzene	550	5.5	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
1,3,5-Trimethylbenzene	170	5.8	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
1,2-Dichloroethane (EDC)	ND	5.8	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
1,2-Dibromoethane (EDB)	ND	5.6	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
Naphthalene	74	4.6	100	J	µg/L	50	11/14/2016 11:50:00 AM	R38681
1-Methylnaphthalene	29	10	200	J	µg/L	50	11/14/2016 11:50:00 AM	R38681
2-Methylnaphthalene	32	7.9	200	J	µg/L	50	11/14/2016 11:50:00 AM	R38681
Acetone	ND	250	500		µg/L	50	11/14/2016 11:50:00 AM	R38681
Bromobenzene	ND	4.9	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
Bromodichloromethane	ND	7.0	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
Bromoform	ND	5.1	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
Bromomethane	ND	39	150		µg/L	50	11/14/2016 11:50:00 AM	R38681
2-Butanone	ND	37	500		µg/L	50	11/14/2016 11:50:00 AM	R38681
Carbon disulfide	ND	30	500		µg/L	50	11/14/2016 11:50:00 AM	R38681
Carbon Tetrachloride	ND	5.4	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
Chlorobenzene	ND	5.7	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
Chloroethane	ND	9.6	100		µg/L	50	11/14/2016 11:50:00 AM	R38681
Chloroform	7.7	4.4	50	J	µg/L	50	11/14/2016 11:50:00 AM	R38681
Chloromethane	ND	11	150		µg/L	50	11/14/2016 11:50:00 AM	R38681
2-Chlorotoluene	ND	20	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
4-Chlorotoluene	ND	6.4	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
cis-1,2-DCE	ND	6.2	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
cis-1,3-Dichloropropene	ND	5.3	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
1,2-Dibromo-3-chloropropane	ND	12	100		µg/L	50	11/14/2016 11:50:00 AM	R38681
Dibromochloromethane	ND	4.3	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
Dibromomethane	ND	6.0	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
1,2-Dichlorobenzene	ND	20	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
1,3-Dichlorobenzene	ND	7.2	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
1,4-Dichlorobenzene	ND	7.1	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
Dichlorodifluoromethane	ND	18	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
1,1-Dichloroethane	ND	5.4	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
1,1-Dichloroethene	ND	5.4	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
1,2-Dichloropropane	ND	5.5	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
1,3-Dichloropropane	ND	7.8	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
2,2-Dichloropropane	ND	8.3	100		µg/L	50	11/14/2016 11:50:00 AM	R38681

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-55
Project: 2016 4th Qtr (OW)
Collection Date: 11/9/2016 10:40:00 AM
Lab ID: 1611528-002
Matrix: AQUEOUS
Received Date: 11/9/2016 4:45:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,1-Dichloropropene	ND	6.7	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
Hexachlorobutadiene	ND	9.9	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
2-Hexanone	ND	42	500		µg/L	50	11/14/2016 11:50:00 AM	R38681
Isopropylbenzene	28	5.2	50	J	µg/L	50	11/14/2016 11:50:00 AM	R38681
4-Isopropyltoluene	7.7	7.0	50	J	µg/L	50	11/14/2016 11:50:00 AM	R38681
4-Methyl-2-pentanone	ND	21	500		µg/L	50	11/14/2016 11:50:00 AM	R38681
Methylene Chloride	ND	9.4	150		µg/L	50	11/14/2016 11:50:00 AM	R38681
n-Butylbenzene	20	8.0	150	J	µg/L	50	11/14/2016 11:50:00 AM	R38681
n-Propylbenzene	88	6.6	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
sec-Butylbenzene	11	6.2	50	J	µg/L	50	11/14/2016 11:50:00 AM	R38681
Styrene	ND	5.5	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
tert-Butylbenzene	ND	5.8	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
1,1,1,2-Tetrachloroethane	ND	5.6	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
1,1,2,2-Tetrachloroethane	ND	6.4	100		µg/L	50	11/14/2016 11:50:00 AM	R38681
Tetrachloroethene (PCE)	ND	7.6	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
trans-1,2-DCE	ND	20	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
trans-1,3-Dichloropropene	ND	5.2	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
1,2,3-Trichlorobenzene	ND	5.6	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
1,2,4-Trichlorobenzene	ND	6.6	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
1,1,1-Trichloroethane	ND	4.6	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
1,1,2-Trichloroethane	ND	6.4	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
Trichloroethene (TCE)	ND	8.8	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
Trichlorofluoromethane	ND	10	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
1,2,3-Trichloropropane	ND	10	100		µg/L	50	11/14/2016 11:50:00 AM	R38681
Vinyl chloride	ND	9.8	50		µg/L	50	11/14/2016 11:50:00 AM	R38681
Xylenes, Total	2400	18	75		µg/L	50	11/14/2016 11:50:00 AM	R38681
Surr: 1,2-Dichloroethane-d4	98.7	0	70-130		%Rec	50	11/14/2016 11:50:00 AM	R38681
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	50	11/14/2016 11:50:00 AM	R38681
Surr: Dibromofluoromethane	99.3	0	70-130		%Rec	50	11/14/2016 11:50:00 AM	R38681
Surr: Toluene-d8	102	0	70-130		%Rec	50	11/14/2016 11:50:00 AM	R38681

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-57
Project: 2016 4th Qtr (OW)
Collection Date: 11/8/2016 12:45:00 PM
Lab ID: 1611528-003
Matrix: AQUEOUS
Received Date: 11/9/2016 4:45:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	7.8	0.69	1.0		mg/L	1	11/14/2016 5:47:22 PM	28621
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/14/2016 5:47:22 PM	28621
Surr: DNOP	108	0	77.1-144		%Rec	1	11/14/2016 5:47:22 PM	28621
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	39	5.1	10		mg/L	200	11/14/2016 2:26:41 PM	G38685
Surr: BFB	90.3	0	66.4-120		%Rec	200	11/14/2016 2:26:41 PM	G38685
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	2.4	0.0066	0.010	*	mg/L	5	12/8/2016 1:16:38 PM	A39247
Cadmium	ND	0.00075	0.0020		mg/L	1	12/6/2016 5:36:11 PM	B39177
Chromium	ND	0.0018	0.0060		mg/L	1	12/6/2016 5:36:11 PM	B39177
Copper	ND	0.0040	0.0060		mg/L	1	12/6/2016 5:36:11 PM	B39177
Iron	1.6	0.10	0.10	*	mg/L	5	12/8/2016 1:16:38 PM	A39247
Manganese	2.3	0.0016	0.010	*	mg/L	5	12/8/2016 1:16:38 PM	A39247
Silver	ND	0.0028	0.0050		mg/L	1	12/6/2016 5:36:11 PM	B39177
Zinc	0.0037	0.0028	0.010	J	mg/L	1	12/8/2016 1:14:48 PM	A39247
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	2.4	0.0040	0.010	*	mg/L	5	12/9/2016 11:04:32 AM	28977
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 2:34:53 PM	28977
Chromium	ND	0.0027	0.0060		mg/L	1	12/8/2016 2:34:53 PM	28977
Copper	ND	0.0030	0.0060		mg/L	1	12/8/2016 2:34:53 PM	28977
Iron	4.6	0.10	0.10	*	mg/L	5	12/9/2016 11:04:32 AM	28977
Manganese	2.5	0.0014	0.010	*	mg/L	5	12/9/2016 11:04:32 AM	28977
Silver	0.0040	0.0015	0.0050	J	mg/L	1	12/8/2016 2:34:53 PM	28977
Zinc	0.0089	0.0027	0.010	J	mg/L	1	12/8/2016 2:34:53 PM	28977
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0051	0.0028	0.020	J	mg/L	20	11/30/2016 3:05:27 PM	R39071
Lead	ND	0.00017	0.00050		mg/L	1	11/28/2016 3:57:26 PM	B39007
Selenium	0.012	0.0042	0.020	J	mg/L	20	11/30/2016 3:05:27 PM	R39071
Uranium	0.0047	0.000051	0.00050		mg/L	1	11/28/2016 3:57:26 PM	B39007
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0046	0.0042	0.020	J	mg/L	20	12/7/2016 2:22:54 PM	28977
Lead	0.0028	0.000081	0.00050		mg/L	1	12/5/2016 2:49:28 PM	28977
Selenium	0.012	0.0037	0.020	J	mg/L	20	12/7/2016 2:22:54 PM	28977
Uranium	0.0053	0.00017	0.00050		mg/L	1	12/5/2016 2:49:28 PM	28977
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	0.000057	0.000053	0.00020	J	mg/L	1	11/29/2016 4:02:29 PM	28890

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-57
Project: 2016 4th Qtr (OW)
Collection Date: 11/8/2016 12:45:00 PM
Lab ID: 1611528-003 **Matrix:** AQUEOUS **Received Date:** 11/9/2016 4:45:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	10000	48	500		µg/L	500	11/14/2016 9:27:00 PM	R38681
Toluene	35	0.59	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
Ethylbenzene	580	5.6	50		µg/L	50	11/14/2016 1:24:00 PM	R38681
Methyl tert-butyl ether (MTBE)	160	1.1	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
1,2,4-Trimethylbenzene	0.96	0.55	5.0	J	µg/L	5	11/14/2016 1:47:00 PM	R38681
1,3,5-Trimethylbenzene	1.6	0.58	5.0	J	µg/L	5	11/14/2016 1:47:00 PM	R38681
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
Naphthalene	210	0.46	10		µg/L	5	11/14/2016 1:47:00 PM	R38681
1-Methylnaphthalene	170	1.0	20		µg/L	5	11/14/2016 1:47:00 PM	R38681
2-Methylnaphthalene	130	0.79	20		µg/L	5	11/14/2016 1:47:00 PM	R38681
Acetone	54	25	50		µg/L	5	11/14/2016 1:47:00 PM	R38681
Bromobenzene	ND	0.49	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
Bromodichloromethane	ND	0.70	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
Bromoform	ND	0.51	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
Bromomethane	ND	3.9	15		µg/L	5	11/14/2016 1:47:00 PM	R38681
2-Butanone	17	3.7	50	J	µg/L	5	11/14/2016 1:47:00 PM	R38681
Carbon disulfide	ND	3.0	50		µg/L	5	11/14/2016 1:47:00 PM	R38681
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
Chlorobenzene	ND	0.57	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
Chloroethane	ND	0.96	10		µg/L	5	11/14/2016 1:47:00 PM	R38681
Chloroform	ND	0.44	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
Chloromethane	ND	1.1	15		µg/L	5	11/14/2016 1:47:00 PM	R38681
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	11/14/2016 1:47:00 PM	R38681
Dibromochloromethane	ND	0.43	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
Dibromomethane	ND	0.60	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
2,2-Dichloropropane	ND	0.83	10		µg/L	5	11/14/2016 1:47:00 PM	R38681

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-57
Project: 2016 4th Qtr (OW)
Collection Date: 11/8/2016 12:45:00 PM
Lab ID: 1611528-003
Matrix: AQUEOUS
Received Date: 11/9/2016 4:45:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
2-Hexanone	ND	4.2	50		µg/L	5	11/14/2016 1:47:00 PM	R38681
Isopropylbenzene	15	0.52	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
4-Isopropyltoluene	1.8	0.70	5.0	J	µg/L	5	11/14/2016 1:47:00 PM	R38681
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	11/14/2016 1:47:00 PM	R38681
Methylene Chloride	ND	0.94	15		µg/L	5	11/14/2016 1:47:00 PM	R38681
n-Butylbenzene	3.3	0.80	15	J	µg/L	5	11/14/2016 1:47:00 PM	R38681
n-Propylbenzene	39	0.66	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
sec-Butylbenzene	1.9	0.62	5.0	J	µg/L	5	11/14/2016 1:47:00 PM	R38681
Styrene	ND	0.55	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	11/14/2016 1:47:00 PM	R38681
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	11/14/2016 1:47:00 PM	R38681
Vinyl chloride	ND	0.98	5.0		µg/L	5	11/14/2016 1:47:00 PM	R38681
Xylenes, Total	110	1.8	7.5		µg/L	5	11/14/2016 1:47:00 PM	R38681
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	5	11/14/2016 1:47:00 PM	R38681
Surr: 4-Bromofluorobenzene	99.9	0	70-130		%Rec	5	11/14/2016 1:47:00 PM	R38681
Surr: Dibromofluoromethane	101	0	70-130		%Rec	5	11/14/2016 1:47:00 PM	R38681
Surr: Toluene-d8	101	0	70-130		%Rec	5	11/14/2016 1:47:00 PM	R38681

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-54
Project: 2016 4th Qtr (OW)
Collection Date: 11/9/2016 9:35:00 AM
Lab ID: 1611528-004
Matrix: AQUEOUS
Received Date: 11/9/2016 4:45:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	1.8	0.69	1.0		mg/L	1	11/14/2016 6:14:42 PM	28621
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/14/2016 6:14:42 PM	28621
Surr: DNOP	110	0	77.1-144		%Rec	1	11/14/2016 6:14:42 PM	28621
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	4.5	0.13	0.25		mg/L	5	11/14/2016 2:51:32 PM	G38685
Surr: BFB	94.6	0	66.4-120		%Rec	5	11/14/2016 2:51:32 PM	G38685
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.15	0.0013	0.0020		mg/L	1	12/6/2016 5:37:52 PM	B39177
Cadmium	ND	0.00075	0.0020		mg/L	1	12/6/2016 5:37:52 PM	B39177
Chromium	ND	0.0018	0.0060		mg/L	1	12/6/2016 5:37:52 PM	B39177
Copper	0.0067	0.0040	0.0060		mg/L	1	12/6/2016 5:37:52 PM	B39177
Iron	0.24	0.020	0.020		mg/L	1	12/6/2016 5:37:52 PM	B39177
Manganese	1.4	0.0016	0.010	*	mg/L	5	12/8/2016 1:20:32 PM	A39247
Silver	ND	0.0028	0.0050		mg/L	1	12/6/2016 5:37:52 PM	B39177
Zinc	0.011	0.0028	0.010		mg/L	1	12/8/2016 1:18:36 PM	A39247
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.46	0.00079	0.0020		mg/L	1	12/8/2016 2:36:31 PM	28977
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 2:36:31 PM	28977
Chromium	0.0061	0.0027	0.0060		mg/L	1	12/8/2016 2:36:31 PM	28977
Copper	0.024	0.0030	0.0060		mg/L	1	12/8/2016 2:36:31 PM	28977
Iron	4.4	0.10	0.10	*	mg/L	5	12/9/2016 11:06:31 AM	28977
Manganese	1.7	0.0014	0.010	*	mg/L	5	12/9/2016 11:06:31 AM	28977
Silver	0.0044	0.0015	0.0050	J	mg/L	1	12/8/2016 2:36:31 PM	28977
Zinc	0.018	0.0027	0.010		mg/L	1	12/8/2016 2:36:31 PM	28977
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0060	0.0028	0.020	J	mg/L	20	11/30/2016 3:15:44 PM	R39071
Lead	0.0064	0.00017	0.00050		mg/L	1	11/28/2016 4:00:29 PM	B39007
Selenium	0.013	0.0042	0.020	J	mg/L	20	11/30/2016 3:15:44 PM	R39071
Uranium	0.057	0.00026	0.0025	*	mg/L	5	11/30/2016 3:10:35 PM	R39071
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0061	0.0042	0.020	J	mg/L	20	12/7/2016 2:33:11 PM	28977
Lead	0.019	0.00041	0.0025	*	mg/L	5	12/7/2016 2:28:03 PM	28977
Selenium	0.015	0.0037	0.020	J	mg/L	20	12/7/2016 2:33:11 PM	28977
Uranium	0.062	0.00087	0.0025	*	mg/L	5	12/7/2016 2:28:03 PM	28977
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	0.000057	0.000053	0.00020	J	mg/L	1	11/29/2016 3:13:49 PM	28890

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-54
Project: 2016 4th Qtr (OW)
Collection Date: 11/9/2016 9:35:00 AM
Lab ID: 1611528-004 **Matrix:** AQUEOUS **Received Date:** 11/9/2016 4:45:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	94	0.48	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
Toluene	6.5	0.59	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
Ethylbenzene	25	0.56	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
Methyl tert-butyl ether (MTBE)	2100	11	50		µg/L	50	11/14/2016 2:35:00 PM	R38681
1,2,4-Trimethylbenzene	16	0.55	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
1,3,5-Trimethylbenzene	4.8	0.58	5.0	J	µg/L	5	11/14/2016 2:59:00 PM	R38681
1,2-Dichloroethane (EDC)	ND	0.58	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
Naphthalene	3.7	0.46	10	J	µg/L	5	11/14/2016 2:59:00 PM	R38681
1-Methylnaphthalene	1.9	1.0	20	J	µg/L	5	11/14/2016 2:59:00 PM	R38681
2-Methylnaphthalene	2.1	0.79	20	J	µg/L	5	11/14/2016 2:59:00 PM	R38681
Acetone	ND	25	50		µg/L	5	11/14/2016 2:59:00 PM	R38681
Bromobenzene	ND	0.49	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
Bromodichloromethane	ND	0.70	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
Bromoform	ND	0.51	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
Bromomethane	ND	3.9	15		µg/L	5	11/14/2016 2:59:00 PM	R38681
2-Butanone	ND	3.7	50		µg/L	5	11/14/2016 2:59:00 PM	R38681
Carbon disulfide	ND	3.0	50		µg/L	5	11/14/2016 2:59:00 PM	R38681
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
Chlorobenzene	ND	0.57	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
Chloroethane	ND	0.96	10		µg/L	5	11/14/2016 2:59:00 PM	R38681
Chloroform	ND	0.44	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
Chloromethane	ND	1.1	15		µg/L	5	11/14/2016 2:59:00 PM	R38681
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	11/14/2016 2:59:00 PM	R38681
Dibromochloromethane	ND	0.43	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
Dibromomethane	ND	0.60	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
2,2-Dichloropropane	ND	0.83	10		µg/L	5	11/14/2016 2:59:00 PM	R38681

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-54
Project: 2016 4th Qtr (OW)
Collection Date: 11/9/2016 9:35:00 AM
Lab ID: 1611528-004 **Matrix:** AQUEOUS **Received Date:** 11/9/2016 4:45:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
2-Hexanone	ND	4.2	50		µg/L	5	11/14/2016 2:59:00 PM	R38681
Isopropylbenzene	1.2	0.52	5.0	J	µg/L	5	11/14/2016 2:59:00 PM	R38681
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	11/14/2016 2:59:00 PM	R38681
Methylene Chloride	ND	0.94	15		µg/L	5	11/14/2016 2:59:00 PM	R38681
n-Butylbenzene	1.0	0.80	15	J	µg/L	5	11/14/2016 2:59:00 PM	R38681
n-Propylbenzene	3.1	0.66	5.0	J	µg/L	5	11/14/2016 2:59:00 PM	R38681
sec-Butylbenzene	1.1	0.62	5.0	J	µg/L	5	11/14/2016 2:59:00 PM	R38681
Styrene	ND	0.55	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	11/14/2016 2:59:00 PM	R38681
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	11/14/2016 2:59:00 PM	R38681
Vinyl chloride	ND	0.98	5.0		µg/L	5	11/14/2016 2:59:00 PM	R38681
Xylenes, Total	20	1.8	7.5		µg/L	5	11/14/2016 2:59:00 PM	R38681
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	5	11/14/2016 2:59:00 PM	R38681
Surr: 4-Bromofluorobenzene	99.5	0	70-130		%Rec	5	11/14/2016 2:59:00 PM	R38681
Surr: Dibromofluoromethane	102	0	70-130		%Rec	5	11/14/2016 2:59:00 PM	R38681
Surr: Toluene-d8	101	0	70-130		%Rec	5	11/14/2016 2:59:00 PM	R38681

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-56
Project: 2016 4th Qtr (OW)
Collection Date: 11/9/2016 11:20:00 AM
Lab ID: 1611528-005
Matrix: AQUEOUS
Received Date: 11/9/2016 4:45:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/17/2016 6:57:29 PM	28698
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/17/2016 6:57:29 PM	28698
Surr: DNOP	101	0	77.1-144		%Rec	1	11/17/2016 6:57:29 PM	28698
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.61	0.051	0.10		mg/L	2	11/15/2016 10:07:39 AM	G38714
Surr: BFB	245	0	66.4-120	S	%Rec	2	11/15/2016 10:07:39 AM	G38714
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.36	0.0013	0.0020		mg/L	1	12/6/2016 5:39:47 PM	B39177
Cadmium	ND	0.00075	0.0020		mg/L	1	12/6/2016 5:39:47 PM	B39177
Chromium	ND	0.0018	0.0060		mg/L	1	12/6/2016 5:39:47 PM	B39177
Copper	0.0058	0.0040	0.0060	J	mg/L	1	12/6/2016 5:39:47 PM	B39177
Iron	0.045	0.020	0.020		mg/L	1	12/6/2016 5:39:47 PM	B39177
Manganese	0.26	0.00032	0.0020	*	mg/L	1	12/6/2016 5:39:47 PM	B39177
Silver	ND	0.0028	0.0050		mg/L	1	12/6/2016 5:39:47 PM	B39177
Zinc	0.0077	0.0028	0.010	J	mg/L	1	12/8/2016 1:22:29 PM	A39247
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.38	0.00079	0.0020		mg/L	1	12/8/2016 2:38:14 PM	28977
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 2:38:14 PM	28977
Chromium	ND	0.0027	0.0060		mg/L	1	12/8/2016 2:38:14 PM	28977
Copper	0.0089	0.0030	0.0060		mg/L	1	12/8/2016 2:38:14 PM	28977
Iron	1.1	0.10	0.10	*	mg/L	5	12/9/2016 11:08:29 AM	28977
Manganese	0.28	0.00027	0.0020	*	mg/L	1	12/8/2016 2:38:14 PM	28977
Silver	0.0044	0.0015	0.0050	J	mg/L	1	12/8/2016 2:38:14 PM	28977
Zinc	0.015	0.0027	0.010		mg/L	1	12/8/2016 2:38:14 PM	28977
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0045	0.0028	0.020	J	mg/L	20	11/30/2016 3:26:00 PM	R39071
Lead	0.00051	0.00017	0.00050		mg/L	1	11/28/2016 4:03:32 PM	B39007
Selenium	0.011	0.0011	0.0050		mg/L	5	11/30/2016 3:20:52 PM	R39071
Uranium	0.021	0.000051	0.00050		mg/L	1	11/28/2016 4:03:32 PM	B39007
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0097	0.0042	0.020	J	mg/L	20	12/7/2016 2:53:51 PM	28977
Lead	0.0020	0.00041	0.0025	J	mg/L	5	12/7/2016 2:38:19 PM	28977
Selenium	0.011	0.0037	0.020	J	mg/L	20	12/7/2016 2:53:51 PM	28977
Uranium	0.022	0.00087	0.0025		mg/L	5	12/7/2016 2:38:19 PM	28977
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	0.000066	0.000053	0.00020	J	mg/L	1	11/29/2016 4:04:22 PM	28890

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-56
Project: 2016 4th Qtr (OW)
Collection Date: 11/9/2016 11:20:00 AM
Lab ID: 1611528-005 **Matrix:** AQUEOUS **Received Date:** 11/9/2016 4:45:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	1.0	0.096	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
Toluene	ND	0.12	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
Methyl tert-butyl ether (MTBE)	160	0.21	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
1,2,4-Trimethylbenzene	0.18	0.11	1.0	J	µg/L	1	11/14/2016 3:46:00 PM	R38681
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
1,2-Dichloroethane (EDC)	17	0.12	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
Naphthalene	0.12	0.093	2.0	J	µg/L	1	11/14/2016 3:46:00 PM	R38681
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
2-Methylnaphthalene	0.19	0.16	4.0	J	µg/L	1	11/14/2016 3:46:00 PM	R38681
Acetone	10	4.9	10		µg/L	1	11/14/2016 3:46:00 PM	R38681
Bromobenzene	ND	0.098	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
Bromoform	ND	0.10	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
Bromomethane	ND	0.78	3.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
2-Butanone	0.79	0.74	10	J	µg/L	1	11/14/2016 3:46:00 PM	R38681
Carbon disulfide	ND	0.60	10		µg/L	1	11/14/2016 3:46:00 PM	R38681
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
Chloroethane	ND	0.19	2.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
Chloroform	ND	0.089	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
Chloromethane	ND	0.21	3.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
Dibromomethane	ND	0.12	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
1,1-Dichloroethane	0.95	0.11	1.0	J	µg/L	1	11/14/2016 3:46:00 PM	R38681
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/14/2016 3:46:00 PM	R38681

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-56
Project: 2016 4th Qtr (OW)
Collection Date: 11/9/2016 11:20:00 AM
Lab ID: 1611528-005 **Matrix:** AQUEOUS **Received Date:** 11/9/2016 4:45:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
2-Hexanone	ND	0.84	10		µg/L	1	11/14/2016 3:46:00 PM	R38681
Isopropylbenzene	0.67	0.10	1.0	J	µg/L	1	11/14/2016 3:46:00 PM	R38681
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/14/2016 3:46:00 PM	R38681
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
n-Butylbenzene	0.21	0.16	3.0	J	µg/L	1	11/14/2016 3:46:00 PM	R38681
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
sec-Butylbenzene	0.19	0.12	1.0	J	µg/L	1	11/14/2016 3:46:00 PM	R38681
Styrene	ND	0.11	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/14/2016 3:46:00 PM	R38681
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/14/2016 3:46:00 PM	R38681
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	11/14/2016 3:46:00 PM	R38681
Surr: 4-Bromofluorobenzene	99.7	0	70-130		%Rec	1	11/14/2016 3:46:00 PM	R38681
Surr: Dibromofluoromethane	101	0	70-130		%Rec	1	11/14/2016 3:46:00 PM	R38681
Surr: Toluene-d8	102	0	70-130		%Rec	1	11/14/2016 3:46:00 PM	R38681

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP 01
Project: 2016 4th Qtr (OW)
Collection Date: 11/9/2016
Lab ID: 1611528-006
Matrix: AQUEOUS
Received Date: 11/9/2016 4:45:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	1.7	0.69	1.0		mg/L	1	11/14/2016 6:41:33 PM	28621
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/14/2016 6:41:33 PM	28621
Surr: DNOP	113	0	77.1-144		%Rec	1	11/14/2016 6:41:33 PM	28621
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	4.5	0.13	0.25		mg/L	5	11/14/2016 3:41:25 PM	G38685
Surr: BFB	91.4	0	66.4-120		%Rec	5	11/14/2016 3:41:25 PM	G38685
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.15	0.0013	0.0020		mg/L	1	12/6/2016 5:49:59 PM	B39177
Cadmium	ND	0.00075	0.0020		mg/L	1	12/6/2016 5:49:59 PM	B39177
Chromium	ND	0.0018	0.0060		mg/L	1	12/6/2016 5:49:59 PM	B39177
Copper	0.0062	0.0040	0.0060		mg/L	1	12/6/2016 5:49:59 PM	B39177
Iron	0.24	0.020	0.020		mg/L	1	12/6/2016 5:49:59 PM	B39177
Manganese	1.4	0.0016	0.010	*	mg/L	5	12/8/2016 1:26:21 PM	A39247
Silver	ND	0.0028	0.0050		mg/L	1	12/6/2016 5:49:59 PM	B39177
Zinc	0.0079	0.0028	0.010	J	mg/L	1	12/8/2016 1:24:22 PM	A39247
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.47	0.00079	0.0020		mg/L	1	12/8/2016 2:40:18 PM	28977
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 2:40:18 PM	28977
Chromium	0.0066	0.0027	0.0060		mg/L	1	12/8/2016 2:40:18 PM	28977
Copper	0.024	0.0030	0.0060		mg/L	1	12/8/2016 2:40:18 PM	28977
Iron	5.3	0.20	0.20	*	mg/L	10	12/9/2016 11:14:22 AM	28977
Manganese	1.7	0.0014	0.010	*	mg/L	5	12/9/2016 11:10:24 AM	28977
Silver	0.0040	0.0015	0.0050	J	mg/L	1	12/8/2016 2:40:18 PM	28977
Zinc	0.017	0.0027	0.010		mg/L	1	12/8/2016 2:40:18 PM	28977
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0056	0.0028	0.020	J	mg/L	20	11/30/2016 3:36:17 PM	R39071
Lead	0.0064	0.00017	0.00050		mg/L	1	11/28/2016 4:06:35 PM	B39007
Selenium	0.012	0.0042	0.020	J	mg/L	20	11/30/2016 3:36:17 PM	R39071
Uranium	0.059	0.00026	0.0025	*	mg/L	5	11/30/2016 3:31:08 PM	R39071
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0058	0.0042	0.020	J	mg/L	20	12/7/2016 3:04:08 PM	28977
Lead	0.018	0.00041	0.0025	*	mg/L	5	12/7/2016 2:59:00 PM	28977
Selenium	0.014	0.0037	0.020	J	mg/L	20	12/7/2016 3:04:08 PM	28977
Uranium	0.061	0.00087	0.0025	*	mg/L	5	12/7/2016 2:59:00 PM	28977
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	0.000056	0.000053	0.00020	J	mg/L	1	11/29/2016 3:17:17 PM	28890

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP 01
Project: 2016 4th Qtr (OW)
Collection Date: 11/9/2016
Lab ID: 1611528-006
Matrix: AQUEOUS
Received Date: 11/9/2016 4:45:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	93	0.096	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
Toluene	5.9	0.12	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
Ethylbenzene	24	0.11	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
Methyl tert-butyl ether (MTBE)	1800	11	50		µg/L	50	11/15/2016 10:45:00 AM	R38707
1,2,4-Trimethylbenzene	15	0.11	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
1,3,5-Trimethylbenzene	4.5	0.12	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
Naphthalene	3.3	0.093	2.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
1-Methylnaphthalene	1.4	0.20	4.0	J	µg/L	1	11/14/2016 4:11:00 PM	R38681
2-Methylnaphthalene	1.5	0.16	4.0	J	µg/L	1	11/14/2016 4:11:00 PM	R38681
Acetone	14	4.9	10		µg/L	1	11/14/2016 4:11:00 PM	R38681
Bromobenzene	ND	0.098	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
Bromoform	ND	0.10	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
Bromomethane	ND	0.78	3.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
2-Butanone	ND	0.74	10		µg/L	1	11/14/2016 4:11:00 PM	R38681
Carbon disulfide	ND	0.60	10		µg/L	1	11/14/2016 4:11:00 PM	R38681
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
Chloroethane	ND	0.19	2.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
Chloroform	ND	0.089	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
Chloromethane	ND	0.21	3.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
Dibromomethane	ND	0.12	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/14/2016 4:11:00 PM	R38681

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Lab ID: 1611528-006
Matrix: AQUEOUS
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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
2-Hexanone	ND	0.84	10		µg/L	1	11/14/2016 4:11:00 PM	R38681
Isopropylbenzene	0.87	0.10	1.0	J	µg/L	1	11/14/2016 4:11:00 PM	R38681
4-Isopropyltoluene	0.19	0.14	1.0	J	µg/L	1	11/14/2016 4:11:00 PM	R38681
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/14/2016 4:11:00 PM	R38681
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
n-Butylbenzene	0.47	0.16	3.0	J	µg/L	1	11/14/2016 4:11:00 PM	R38681
n-Propylbenzene	2.8	0.13	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
sec-Butylbenzene	0.81	0.12	1.0	J	µg/L	1	11/14/2016 4:11:00 PM	R38681
Styrene	ND	0.11	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/14/2016 4:11:00 PM	R38681
Xylenes, Total	18	0.37	1.5		µg/L	1	11/14/2016 4:11:00 PM	R38681
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	1	11/14/2016 4:11:00 PM	R38681
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	11/14/2016 4:11:00 PM	R38681
Surr: Dibromofluoromethane	101	0	70-130		%Rec	1	11/14/2016 4:11:00 PM	R38681
Surr: Toluene-d8	99.6	0	70-130		%Rec	1	11/14/2016 4:11:00 PM	R38681

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Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2016 4th Qtr (OW)
Collection Date:
Lab ID: 1611528-007
Matrix: AQUEOUS
Received Date: 11/9/2016 4:45:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/14/2016 4:06:25 PM	G38685
Surr: BFB	94.9	0	66.4-120		%Rec	1	11/14/2016 4:06:25 PM	G38685
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	0.15	0.096	1.0	J	µg/L	1	11/14/2016 4:35:00 PM	R38681
Toluene	ND	0.12	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
Methyl tert-butyl ether (MTBE)	0.40	0.21	1.0	J	µg/L	1	11/14/2016 4:35:00 PM	R38681
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
Naphthalene	0.14	0.093	2.0	J	µg/L	1	11/14/2016 4:35:00 PM	R38681
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
2-Methylnaphthalene	0.20	0.16	4.0	J	µg/L	1	11/14/2016 4:35:00 PM	R38681
Acetone	ND	4.9	10		µg/L	1	11/14/2016 4:35:00 PM	R38681
Bromobenzene	ND	0.098	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
Bromoform	ND	0.10	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
Bromomethane	ND	0.78	3.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
2-Butanone	ND	0.74	10		µg/L	1	11/14/2016 4:35:00 PM	R38681
Carbon disulfide	ND	0.60	10		µg/L	1	11/14/2016 4:35:00 PM	R38681
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
Chloroethane	ND	0.19	2.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
Chloroform	ND	0.089	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
Chloromethane	ND	0.21	3.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
Dibromomethane	ND	0.12	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2016 4th Qtr (OW)
Collection Date:
Lab ID: 1611528-007
Matrix: AQUEOUS
Received Date: 11/9/2016 4:45:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
2-Hexanone	ND	0.84	10		µg/L	1	11/14/2016 4:35:00 PM	R38681
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/14/2016 4:35:00 PM	R38681
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
Styrene	ND	0.11	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/14/2016 4:35:00 PM	R38681
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/14/2016 4:35:00 PM	R38681
Surr: 1,2-Dichloroethane-d4	104	0	70-130		%Rec	1	11/14/2016 4:35:00 PM	R38681
Surr: 4-Bromofluorobenzene	97.9	0	70-130		%Rec	1	11/14/2016 4:35:00 PM	R38681
Surr: Dibromofluoromethane	103	0	70-130		%Rec	1	11/14/2016 4:35:00 PM	R38681
Surr: Toluene-d8	101	0	70-130		%Rec	1	11/14/2016 4:35:00 PM	R38681

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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611528**

16-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (OW)

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B39177**	RunNo: **39177**
Prep Date:	Analysis Date: **12/6/2016**	SeqNo: **1226115** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B39177**	RunNo: **39177**
Prep Date:	Analysis Date: **12/6/2016**	SeqNo: **1226116** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.8	85	115			
Cadmium	0.49	0.0020	0.5000	0	99.0	85	115			
Chromium	0.47	0.0060	0.5000	0	94.7	85	115			
Copper	0.47	0.0060	0.5000	0	94.3	85	115			
Iron	0.48	0.020	0.5000	0	96.7	85	115			
Manganese	0.47	0.0020	0.5000	0	94.6	85	115			
Silver	0.099	0.0050	0.1000	0	98.8	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B39177**	RunNo: **39177**
Prep Date:	Analysis Date: **12/6/2016**	SeqNo: **1226383** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0018	0.0020	0.002000	0	91.5	50	150			J
Cadmium	0.0021	0.0020	0.002000	0	106	50	150			
Chromium	0.0056	0.0060	0.006000	0	93.0	50	150			J
Copper	0.0040	0.0060	0.006000	0	67.0	50	150			J
Iron	0.022	0.020	0.02000	0	109	50	150			
Manganese	0.0022	0.0020	0.002000	0	108	50	150			
Silver	0.0050	0.0050	0.005000	0	101	50	150			

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A39247**	RunNo: **39247**
Prep Date:	Analysis Date: **12/8/2016**	SeqNo: **1228271** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								

Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611528**

16-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (OW)

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A39247**	RunNo: **39247**
Prep Date:	Analysis Date: **12/8/2016**	SeqNo: **1228271** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A39247**	RunNo: **39247**
Prep Date:	Analysis Date: **12/8/2016**	SeqNo: **1228272** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.4	85	115			
Iron	0.49	0.020	0.5000	0	97.9	85	115			
Manganese	0.49	0.0020	0.5000	0	97.6	85	115			
Zinc	0.49	0.010	0.5000	0	99.0	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A39247**	RunNo: **39247**
Prep Date:	Analysis Date: **12/8/2016**	SeqNo: **1228273** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	97.5	50	150			J
Iron	0.024	0.020	0.02000	0	122	50	150			
Manganese	0.0024	0.0020	0.002000	0	123	50	150			
Zinc	0.0067	0.010	0.005000	0	134	50	150			J

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611528**

16-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (OW)

Sample ID **MB-28977**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **28977**	RunNo: **39164**
Prep Date: **12/2/2016**	Analysis Date: **12/5/2016**	SeqNo: **1225287** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LLLCS-28977**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **28977**	RunNo: **39164**
Prep Date: **12/2/2016**	Analysis Date: **12/5/2016**	SeqNo: **1225288** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0023	0.0020	0.002000	0	116	50	150			
Cadmium	0.0024	0.0020	0.002000	0	122	50	150			
Chromium	0.0055	0.0060	0.006000	0	91.5	50	150			J
Copper	0.0087	0.0060	0.006000	0	146	50	150			
Iron	0.023	0.020	0.02000	0	114	50	150			
Manganese	0.0021	0.0020	0.002000	0	103	50	150			
Silver	0.0050	0.0050	0.005000	0	99.8	50	150			J
Zinc	0.0052	0.010	0.005000	0	104	50	150			J

Sample ID **LCS-28977**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **28977**	RunNo: **39164**
Prep Date: **12/2/2016**	Analysis Date: **12/5/2016**	SeqNo: **1225292** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.0020	0.5000	0	94.4	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.8	85	115			
Chromium	0.47	0.0060	0.5000	0	93.7	85	115			
Copper	0.50	0.0060	0.5000	0	99.6	85	115			
Iron	0.47	0.020	0.5000	0	94.2	85	115			
Manganese	0.46	0.0020	0.5000	0	92.8	85	115			
Silver	0.099	0.0050	0.1000	0	99.4	85	115			
Zinc	0.46	0.010	0.5000	0	91.2	85	115			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611528**

16-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (OW)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B39007**	RunNo: **39007**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1220003** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.4	85	115			
Lead	0.012	0.00050	0.01250	0	98.0	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			
Uranium	0.012	0.00050	0.01250	0	96.6	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B39007**	RunNo: **39007**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1220007** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00097	0.0010	0.001000	0	97.5	50	150			J
Lead	0.00048	0.00050	0.0005000	0	96.4	50	150			J
Selenium	0.0010	0.0010	0.001000	0	104	50	150			
Uranium	0.00049	0.00050	0.0005000	0	98.6	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B39007**	RunNo: **39007**
Prep Date:	Analysis Date: **11/28/2016**	SeqNo: **1220008** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R39071**	RunNo: **39071**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1222065** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	102	85	115			
Selenium	0.027	0.0010	0.02500	0	107	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R39071**	RunNo: **39071**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1222066** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611528**

16-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (OW)

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R39071**	RunNo: **39071**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1222066** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.027	0.0010	0.02500	0	108	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R39071**	RunNo: **39071**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1222067** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00099	0.0010	0.001000	0	98.5	50	150			J
Selenium	0.00097	0.0010	0.001000	0	97.3	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	98.4	50	150			J

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R39071**	RunNo: **39071**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1222068** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	101	50	150			
Selenium	0.0011	0.0010	0.001000	0	105	50	150			
Uranium	0.00048	0.00050	0.0005000	0	96.9	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R39071**	RunNo: **39071**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1222069** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R39071**	RunNo: **39071**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1222070** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611528**

16-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (OW)

Sample ID	**MB-28977**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**28977**	RunNo:	**39143**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/5/2016**	SeqNo:	**1224657**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-28977**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**28977**	RunNo:	**39143**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/5/2016**	SeqNo:	**1224659**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.5	85	115			
Lead	0.012	0.00050	0.01250	0	98.2	85	115			
Selenium	0.024	0.0010	0.02500	0	97.2	85	115			
Uranium	0.012	0.00050	0.01250	0	97.5	85	115			

Sample ID	**MSLLLCS-28977**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**28977**	RunNo:	**39143**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/5/2016**	SeqNo:	**1224661**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00099	0.0010	0.001000	0	98.8	50	150			J
Lead	0.00049	0.00050	0.0005000	0	97.2	50	150			J
Selenium	0.00092	0.0010	0.001000	0	92.0	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	97.2	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611528**

16-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (OW)

Sample ID	**MB-28890**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**28890**	RunNo:	**39024**					
Prep Date:	**11/29/2016**	Analysis Date:	**11/29/2016**	SeqNo:	**1220570**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000067	0.00020								J

Sample ID	**LCS-28890**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**28890**	RunNo:	**39024**					
Prep Date:	**11/29/2016**	Analysis Date:	**11/29/2016**	SeqNo:	**1220571**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.5	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611528**

16-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (OW)

Sample ID **MB-28621**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **28621**	RunNo: **38670**
Prep Date: **11/11/2016**	Analysis Date: **11/14/2016**	SeqNo: **1208052** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		100	77.1	144			

Sample ID **LCS-28621**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **28621**	RunNo: **38670**
Prep Date: **11/11/2016**	Analysis Date: **11/14/2016**	SeqNo: **1208053** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.5	1.0	5.000	0	90.6	63.2	155			
Surr: DNOP	0.51		0.5000		101	77.1	144			

Sample ID **MB-28698**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **28698**	RunNo: **38769**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1212026** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		104	77.1	144			

Sample ID **LCS-28698**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **28698**	RunNo: **38769**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1212027** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	115	63.2	155			
Surr: DNOP	0.52		0.5000		104	77.1	144			

Sample ID **1611528-005CMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **OW-56**	Batch ID: **28698**	RunNo: **38769**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1212049** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.3	1.0	5.000	0	126	79.6	148			
Surr: DNOP	0.51		0.5000		102	77.1	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611528**

16-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (OW)

Sample ID	**1611528-005CMSD**	SampType:	**MSD**	TestCode:	**EPA Method 8015M/D: Diesel Range**
Client ID:	**OW-56**	Batch ID:	**28698**	RunNo:	**38769**
Prep Date:	**11/16/2016**	Analysis Date:	**11/17/2016**	SeqNo:	**1212050** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.4	1.0	5.000	0	128	79.6	148	1.15	20	
Surr: DNOP	0.52		0.5000		104	77.1	144	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611528**

16-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (OW)

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G38685**	RunNo: **38685**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208308** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		94.1	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G38685**	RunNo: **38685**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208309** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	96.4	80	120			
Surr: BFB	21		20.00		103	66.4	120			

Sample ID **1611528-002BMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **OW-55**	Batch ID: **G38685**	RunNo: **38685**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208312** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	95	5.0	50.00	50.78	87.6	64.8	129			
Surr: BFB	2000		2000		99.9	66.4	120			

Sample ID **1611528-002BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **OW-55**	Batch ID: **G38685**	RunNo: **38685**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208313** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	96	5.0	50.00	50.78	91.0	64.8	129	1.76	20	
Surr: BFB	2000		2000		101	66.4	120	0	0	

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G38714**	RunNo: **38714**
Prep Date:	Analysis Date: **11/15/2016**	SeqNo: **1209444** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		94.0	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G38714**	RunNo: **38714**
Prep Date:	Analysis Date: **11/15/2016**	SeqNo: **1209445** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611528**

16-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (OW)

Sample ID	**2.5UG GRO LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**
Client ID:	**LCSW**	Batch ID:	**G38714**	RunNo:	**38714**
Prep Date:		Analysis Date:	**11/15/2016**	SeqNo:	**1209445** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.45	0.050	0.5000	0	91.0	80	120			
Surr: BFB	19		20.00		96.1	66.4	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611528**

16-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (OW)

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R38681**	RunNo: **38681**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208069** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.5	70	130			
Toluene	19	1.0	20.00	0	97.4	70	130			
Chlorobenzene	20	1.0	20.00	0	97.7	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	93.4	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	87.4	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.8		10.00		97.7	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38681**	RunNo: **38681**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208070** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.10	1.0								J
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	0.12	2.0								J
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	0.22	4.0								J
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	0.14	1.0								J
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611528**

16-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (OW)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38681**	RunNo: **38681**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208070** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	1.1	10								J
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	0.13	1.0								J
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	0.19	1.0								J
1,2,3-Trichlorobenzene	0.19	1.0								J
1,2,4-Trichlorobenzene	0.24	1.0								J
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611528**

16-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (OW)

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38681**	RunNo: **38681**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208070** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.7	70	130			
Surr: Dibromofluoromethane	9.8		10.00		97.6	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID **1611528-002ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **OW-55**	Batch ID: **R38681**	RunNo: **38681**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208074** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	12000	50	1000	10700	97.4	70	130			E
Toluene	4200	50	1000	3194	98.2	70	130			
Chlorobenzene	970	50	1000	0	96.8	70	130			
1,1-Dichloroethene	950	50	1000	0	94.6	70	130			
Trichloroethene (TCE)	890	50	1000	0	88.6	70	130			
Surr: 1,2-Dichloroethane-d4	500		500.0		99.1	70	130			
Surr: 4-Bromofluorobenzene	500		500.0		101	70	130			
Surr: Dibromofluoromethane	500		500.0		99.7	70	130			
Surr: Toluene-d8	510		500.0		103	70	130			

Sample ID **1611528-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **OW-55**	Batch ID: **R38681**	RunNo: **38681**
Prep Date:	Analysis Date: **11/14/2016**	SeqNo: **1208075** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	11000	50	1000	10700	63.6	70	130	2.94	20	ES
Toluene	4000	50	1000	3194	76.1	70	130	5.44	20	
Chlorobenzene	920	50	1000	0	92.3	70	130	4.82	20	
1,1-Dichloroethene	900	50	1000	0	89.7	70	130	5.35	20	
Trichloroethene (TCE)	860	50	1000	0	86.1	70	130	2.87	20	
Surr: 1,2-Dichloroethane-d4	500		500.0		100	70	130	0	0	
Surr: 4-Bromofluorobenzene	500		500.0		100	70	130	0	0	
Surr: Dibromofluoromethane	500		500.0		101	70	130	0	0	
Surr: Toluene-d8	510		500.0		101	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611528**

16-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Qtr (OW)

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R38707**	RunNo: **38707**
Prep Date:	Analysis Date: **11/15/2016**	SeqNo: **1209105** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.6	70	130			
Surr: Dibromofluoromethane	9.2		10.00		91.6	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38707**	RunNo: **38707**
Prep Date:	Analysis Date: **11/15/2016**	SeqNo: **1209106** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.0								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.7	70	130			
Surr: Dibromofluoromethane	9.3		10.00		92.5	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1611528 RcptNo: 1

Received by/date: LC 11/09/16

Logged By: Anne Thorne 11/9/2016 4:45:00 PM Anne Thorne

Completed By: Anne Thorne 11/11/2016 Anne Thorne

Reviewed By: AJ 11/11/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 12 (<2 or >12 unless noted)

Adjusted? NO

Checked by: JC

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: ____ Date ____

By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: ____

Client Instructions: ____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL JOHNSON @ WNR.COM
QA/QC Package: Standard ☐ Level 4 (Full Validation)
Accreditation: NELAP ☐ Other
EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2016 4TH QTR (OW)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 2.4

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611528	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	WQCC METALS (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
11/6	0955	WATER	FB110916	40 ML VOA-5	HCL	001			✓							✓					
				250 ML AMBER-1	NEAT	001			✓												
				500 ML PLASTIC-1	HNO_3	001												✓			
				125 ML PLASTIC-1	HNO_3	001												✓			
				500 ML PLASTIC-1	NEAT	001												✓			
	1040	WATER	OW-55	40 ML VOA-5	HCL	002			✓							✓					
				250 ML AMBER-1	NEAT	002			✓												
				500 ML PLASTIC-1	HNO_3	002												✓			
				125 ML PLASTIC-1	HNO_3	002												✓			
				500 ML PLASTIC-1	NEAT	002												✓			

Date	Time	Relinquished by:	Received by:	Date	Time
11/6	1245			11/06/16	14 50
11/6	16 45		Lindsey Cancha	11/7/16	1645

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client:	WESTERN REFINING SW, INC.
	GALLUP REFINERY
Mailing Address:	92 GIANT CROSSING RD
	GALLUP, NM 87301
Phone #:	505-722-0231
Mail or Fax#:	CHERYL.JOHNSON@WNR.COM
QA/QC Package:	Standard / [X] Level 4 (Full Validation)
Accreditation	[X] NELAP [ ] Other
EDD (Type)	EXCEL

Turn-Around Time:	[X] Standard [ ] Rush
Project Name:	2016 4TH QTR (OW)
Project #:	
Project Manager:	CHERYL JOHNSON
Sampler:	TRACY PAYNE
On Ice:	[X] Yes [ ] No
Sample Temperature:	2.4

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611528
9/16	1245	WATER	OW-57	40 mL VOA-5	HCL	003
				250mL AMBER-1	NEAT	003
				500mL PLASTIC-1	HNO_3	003
				125 mL PLASTIC-1	HNO_3	003
				500 mL PLASTIC-1	NEAT	003
9/16	0935	WATER	OW-54	40 mL VOA-5	HCL	004
				250 mL AMBER	NEAT	004
				500 mL PLASTIC-1	HNO_3	004
				125 mL PLASTIC-1	HNO_3	004
				500 mL PLASTIC-1	NEAT	004

Analysis Request	
BTEX + MTBE + TMB's (8021)	
BTEX + MTBE + TPH (Gas only)	
TPH 8015B (GRO / DRO / MRO)	✓
TPH (Method 418.1)	
EDB (Method 504.1)	
PAH's (8310 or 8270 SIMS)	
RCRA 8 Metals	
Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	
8081 Pesticides / 8082 PCB's	
8260B (VOA)	✓
8270 (Semi-VOA)	
WQCC METALS (TOTAL & DISSOLVED)	✓
Air Bubbles (Y or N)	

Date	Time	Relinquished by:	Received by:	Date	Time
9/16	1245			11/09/16	1450
9/16	1645		Lmelsey Cordova	11/9/16	1645

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING RD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: 2016 4TH QTR (OW)
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 2.4

HALL ENVIRONMENTAL ANALYSIS LABORATORY
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Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611528
9/16	1120	WATER	OW-56	40 ML VOA-5	HCL	-005
				250 ML AMBER-1	NEAT	-005
				500 ML PLASTIC-1	KNO_3	-005
				125 ML PLASTIC-1	HNO_3	-005
				500 ML PLASTIC-1	NEAT	-005
	—	WATER	DUP01	40 ML VOA-5	HCL	-006
				250 ML AMBER-1	NEAT	-006
				500 ML PLASTIC-1	HNO_3	-006
				125 ML PLASTIC-1	HNO_3	-006
				500 ML PLASTIC-1	NEAT	-006
9/16	—	WATER	TRIP BLANK	40 ML VOA-4	HCL	-007

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	WQCC METALS (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
		✓							✓					
		✓												
											✓			
											✓			
											✓			
		✓							✓					
		✓												
											✓			
											✓			
											✓			

Relinquished by:	Received by:	Date	Time
	Cosme Vigil	11/09/16	1950
	Lindsey Cordova	11/9/16	1645

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 19, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2016 4th Quarter OW Wells OrderNo.: 1611785

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 11/15/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 7:00:00 AM
Lab ID: 1611785-001 **Matrix:** AQUEOUS **Received Date:** 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Toluene	ND	0.12	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Naphthalene	ND	0.093	2.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Acetone	ND	4.9	10		µg/L	1	11/16/2016 4:50:39 PM	R38763
Bromobenzene	ND	0.098	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Bromoform	ND	0.10	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Bromomethane	ND	0.78	3.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
2-Butanone	ND	0.74	10		µg/L	1	11/16/2016 4:50:39 PM	R38763
Carbon disulfide	ND	0.60	10		µg/L	1	11/16/2016 4:50:39 PM	R38763
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Chloroethane	ND	0.19	2.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Chloroform	ND	0.089	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Chloromethane	ND	0.21	3.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Dibromomethane	ND	0.12	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/16/2016 4:50:39 PM	R38763

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 7:00:00 AM
Lab ID: 1611785-001 **Matrix:** AQUEOUS **Received Date:** 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
2-Hexanone	ND	0.84	10		µg/L	1	11/16/2016 4:50:39 PM	R38763
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/16/2016 4:50:39 PM	R38763
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Styrene	ND	0.11	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/16/2016 4:50:39 PM	R38763
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/16/2016 4:50:39 PM	R38763
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	1	11/16/2016 4:50:39 PM	R38763
Surr: 4-Bromofluorobenzene	98.7	0	70-130		%Rec	1	11/16/2016 4:50:39 PM	R38763
Surr: Dibromofluoromethane	108	0	70-130		%Rec	1	11/16/2016 4:50:39 PM	R38763
Surr: Toluene-d8	101	0	70-130		%Rec	1	11/16/2016 4:50:39 PM	R38763

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-14
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 9:20:00 AM
Lab ID: 1611785-002
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	11/21/2016 5:37:15 PM	28775
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	3.4	0.69	1.0		mg/L	1	11/17/2016 8:52:14 PM	28698
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/17/2016 8:52:14 PM	28698
Surr: DNOP	100	0	77.1-144		%Rec	1	11/17/2016 8:52:14 PM	28698
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	29	1.3	2.5		mg/L	50	11/16/2016 12:53:23 PM	G38747
Surr: BFB	93.0	0	66.4-120		%Rec	50	11/16/2016 12:53:23 PM	G38747
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	2.2	0.013	0.020	*	mg/L	10	12/8/2016 1:37:46 PM	A39247
Cadmium	ND	0.00075	0.0020		mg/L	1	12/6/2016 6:16:14 PM	B39177
Chromium	ND	0.0018	0.0060		mg/L	1	12/6/2016 6:16:14 PM	B39177
Copper	ND	0.0040	0.0060		mg/L	1	12/6/2016 6:16:14 PM	B39177
Iron	4.7	0.20	0.20	*	mg/L	10	12/8/2016 1:37:46 PM	A39247
Manganese	2.1	0.0032	0.020	*	mg/L	10	12/8/2016 1:37:46 PM	A39247
Silver	ND	0.0028	0.0050		mg/L	1	12/6/2016 6:16:14 PM	B39177
Zinc	ND	0.0028	0.010		mg/L	1	12/8/2016 1:28:16 PM	A39247
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	2.3	0.0079	0.020	*	mg/L	10	12/8/2016 2:20:49 PM	28978
Cadmium	ND	0.0015	0.0020		mg/L	1	12/6/2016 2:44:06 PM	28978
Chromium	ND	0.0027	0.0060		mg/L	1	12/6/2016 2:44:06 PM	28978
Copper	ND	0.0030	0.0060		mg/L	1	12/6/2016 2:44:06 PM	28978
Iron	5.1	0.20	0.20	*	mg/L	10	12/8/2016 2:20:49 PM	28978
Manganese	2.3	0.0027	0.020	*	mg/L	10	12/8/2016 2:20:49 PM	28978
Silver	ND	0.0015	0.0050		mg/L	1	12/6/2016 2:44:06 PM	28978
Zinc	ND	0.0027	0.010		mg/L	1	12/8/2016 2:15:46 PM	28978
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0099	0.00069	0.0050		mg/L	5	11/30/2016 3:41:25 PM	R39071
Lead	ND	0.00017	0.00050		mg/L	1	11/28/2016 4:52:32 PM	C39007
Selenium	0.015	0.0042	0.020	J	mg/L	20	11/30/2016 4:15:52 PM	R39071
Uranium	0.0048	0.000051	0.00050		mg/L	1	11/28/2016 4:52:32 PM	C39007
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.011	0.0011	0.0050	*	mg/L	5	12/7/2016 3:09:16 PM	28978
Lead	ND	0.00041	0.0025		mg/L	5	12/7/2016 3:09:16 PM	28978
Selenium	0.018	0.0094	0.050	J	mg/L	50	12/7/2016 3:14:24 PM	28978
Uranium	0.0041	0.00087	0.0025		mg/L	5	12/7/2016 3:09:16 PM	28978

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-14
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 9:20:00 AM
Lab ID: 1611785-002 **Matrix:** AQUEOUS **Received Date:** 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	ND	0.000053	0.00020		mg/L	1	11/29/2016 3:42:42 PM	28890
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	8700	9.6	100		µg/L	100	11/16/2016 7:14:35 PM	R38763
Toluene	5.7	1.2	10	J	µg/L	10	11/16/2016 7:43:30 PM	R38763
Ethylbenzene	300	1.1	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
Methyl tert-butyl ether (MTBE)	500	2.1	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
1,2,4-Trimethylbenzene	8.4	1.1	10	J	µg/L	10	11/16/2016 7:43:30 PM	R38763
1,3,5-Trimethylbenzene	1.5	1.2	10	J	µg/L	10	11/16/2016 7:43:30 PM	R38763
1,2-Dichloroethane (EDC)	3.4	1.2	10	J	µg/L	10	11/16/2016 7:43:30 PM	R38763
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
Naphthalene	20	0.93	20	J	µg/L	10	11/16/2016 7:43:30 PM	R38763
1-Methylnaphthalene	30	2.0	40	J	µg/L	10	11/16/2016 7:43:30 PM	R38763
2-Methylnaphthalene	ND	1.6	40		µg/L	10	11/16/2016 7:43:30 PM	R38763
Acetone	ND	49	100		µg/L	10	11/16/2016 7:43:30 PM	R38763
Bromobenzene	ND	0.98	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
Bromodichloromethane	ND	1.4	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
Bromoform	ND	1.0	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
Bromomethane	ND	7.8	30		µg/L	10	11/16/2016 7:43:30 PM	R38763
2-Butanone	ND	7.4	100		µg/L	10	11/16/2016 7:43:30 PM	R38763
Carbon disulfide	ND	6.0	100		µg/L	10	11/16/2016 7:43:30 PM	R38763
Carbon Tetrachloride	ND	1.1	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
Chlorobenzene	ND	1.1	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
Chloroethane	ND	1.9	20		µg/L	10	11/16/2016 7:43:30 PM	R38763
Chloroform	ND	0.89	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
Chloromethane	ND	2.1	30		µg/L	10	11/16/2016 7:43:30 PM	R38763
2-Chlorotoluene	ND	4.0	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
4-Chlorotoluene	ND	1.3	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
cis-1,2-DCE	ND	1.2	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
cis-1,3-Dichloropropene	ND	1.1	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
1,2-Dibromo-3-chloropropane	ND	2.3	20		µg/L	10	11/16/2016 7:43:30 PM	R38763
Dibromochloromethane	ND	0.87	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
Dibromomethane	ND	1.2	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
Dichlorodifluoromethane	ND	3.6	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
1,1-Dichloroethane	ND	1.1	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
1,1-Dichloroethene	ND	1.1	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
1,2-Dichloropropane	ND	1.1	10		µg/L	10	11/16/2016 7:43:30 PM	R38763

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-14
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 9:20:00 AM
Lab ID: 1611785-002
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichloropropane	ND	1.6	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
2,2-Dichloropropane	ND	1.7	20		µg/L	10	11/16/2016 7:43:30 PM	R38763
1,1-Dichloropropene	ND	1.3	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
Hexachlorobutadiene	ND	2.0	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
2-Hexanone	ND	8.4	100		µg/L	10	11/16/2016 7:43:30 PM	R38763
Isopropylbenzene	10	1.0	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
4-Isopropyltoluene	ND	1.4	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
4-Methyl-2-pentanone	ND	4.3	100		µg/L	10	11/16/2016 7:43:30 PM	R38763
Methylene Chloride	ND	1.9	30		µg/L	10	11/16/2016 7:43:30 PM	R38763
n-Butylbenzene	3.4	1.6	30	J	µg/L	10	11/16/2016 7:43:30 PM	R38763
n-Propylbenzene	13	1.3	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
sec-Butylbenzene	4.1	1.2	10	J	µg/L	10	11/16/2016 7:43:30 PM	R38763
Styrene	ND	1.1	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
tert-Butylbenzene	ND	1.2	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
1,1,2,2-Tetrachloroethane	ND	1.3	20		µg/L	10	11/16/2016 7:43:30 PM	R38763
Tetrachloroethene (PCE)	ND	1.5	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
trans-1,2-DCE	ND	4.0	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
trans-1,3-Dichloropropene	ND	1.0	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
1,1,1-Trichloroethane	ND	0.91	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
1,1,2-Trichloroethane	ND	1.3	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
Trichloroethene (TCE)	ND	1.8	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
Trichlorofluoromethane	ND	2.0	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
1,2,3-Trichloropropane	ND	2.0	20		µg/L	10	11/16/2016 7:43:30 PM	R38763
Vinyl chloride	ND	2.0	10		µg/L	10	11/16/2016 7:43:30 PM	R38763
Xylenes, Total	13	3.7	15	J	µg/L	10	11/16/2016 7:43:30 PM	R38763
Surr: 1,2-Dichloroethane-d4	84.8	0	70-130		%Rec	10	11/16/2016 7:43:30 PM	R38763
Surr: 4-Bromofluorobenzene	91.0	0	70-130		%Rec	10	11/16/2016 7:43:30 PM	R38763
Surr: Dibromofluoromethane	86.2	0	70-130		%Rec	10	11/16/2016 7:43:30 PM	R38763
Surr: Toluene-d8	101	0	70-130		%Rec	10	11/16/2016 7:43:30 PM	R38763

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-13
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 10:35:00 AM
Lab ID: 1611785-003
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	11/21/2016 5:52:28 PM	28775
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/17/2016 9:14:15 PM	28698
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/17/2016 9:14:15 PM	28698
Surr: DNOP	100	0	77.1-144		%Rec	1	11/17/2016 9:14:15 PM	28698
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.068	0.025	0.050		mg/L	1	11/16/2016 2:06:57 PM	G38747
Surr: BFB	91.9	0	66.4-120		%Rec	1	11/16/2016 2:06:57 PM	G38747
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.020	0.0013	0.0020		mg/L	1	12/6/2016 6:17:59 PM	B39177
Cadmium	ND	0.00075	0.0020		mg/L	1	12/6/2016 6:17:59 PM	B39177
Chromium	ND	0.0018	0.0060		mg/L	1	12/6/2016 6:17:59 PM	B39177
Copper	ND	0.0040	0.0060		mg/L	1	12/6/2016 6:17:59 PM	B39177
Iron	ND	0.020	0.020		mg/L	1	12/6/2016 6:17:59 PM	B39177
Manganese	0.021	0.00032	0.0020		mg/L	1	12/6/2016 6:17:59 PM	B39177
Silver	ND	0.0028	0.0050		mg/L	1	12/6/2016 6:17:59 PM	B39177
Zinc	ND	0.0028	0.010		mg/L	1	12/8/2016 1:39:41 PM	A39247
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.020	0.00079	0.0020		mg/L	1	12/8/2016 2:44:12 PM	28978
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 2:44:12 PM	28978
Chromium	ND	0.0027	0.0060		mg/L	1	12/8/2016 2:44:12 PM	28978
Copper	ND	0.0030	0.0060		mg/L	1	12/8/2016 2:44:12 PM	28978
Iron	ND	0.020	0.020		mg/L	1	12/8/2016 2:44:12 PM	28978
Manganese	0.021	0.00027	0.0020		mg/L	1	12/8/2016 2:44:12 PM	28978
Silver	ND	0.0015	0.0050		mg/L	1	12/8/2016 2:44:12 PM	28978
Zinc	ND	0.0027	0.010		mg/L	1	12/8/2016 2:44:12 PM	28978
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0013	0.00069	0.0050	J	mg/L	5	11/30/2016 4:21:00 PM	R39071
Lead	ND	0.00017	0.00050		mg/L	1	11/28/2016 5:04:49 PM	C39007
Selenium	0.0026	0.0011	0.0050	J	mg/L	5	11/30/2016 4:21:00 PM	R39071
Uranium	0.017	0.000051	0.00050		mg/L	1	11/28/2016 5:04:49 PM	C39007
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0016	0.00021	0.0010		mg/L	1	12/5/2016 3:04:32 PM	28978
Lead	ND	0.000081	0.00050		mg/L	1	12/5/2016 3:04:32 PM	28978
Selenium	0.0033	0.00094	0.0050	J	mg/L	5	12/7/2016 3:19:33 PM	28978
Uranium	0.017	0.00087	0.0025		mg/L	5	12/7/2016 3:19:33 PM	28978

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-13
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 10:35:00 AM
Lab ID: 1611785-003
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	0.000062	0.000053	0.00020	J	mg/L	1	11/29/2016 3:48:15 PM	28890
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Toluene	ND	0.12	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Methyl tert-butyl ether (MTBE)	44	0.21	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
1,2-Dichloroethane (EDC)	0.76	0.12	1.0	J	µg/L	1	11/16/2016 5:19:31 PM	R38763
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Naphthalene	ND	0.093	2.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Acetone	ND	4.9	10		µg/L	1	11/16/2016 5:19:31 PM	R38763
Bromobenzene	ND	0.098	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Bromoform	ND	0.10	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Bromomethane	ND	0.78	3.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
2-Butanone	ND	0.74	10		µg/L	1	11/16/2016 5:19:31 PM	R38763
Carbon disulfide	ND	0.60	10		µg/L	1	11/16/2016 5:19:31 PM	R38763
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Chloroethane	ND	0.19	2.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Chloroform	ND	0.089	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Chloromethane	ND	0.21	3.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Dibromomethane	ND	0.12	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-13
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 10:35:00 AM
Lab ID: 1611785-003
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
2-Hexanone	ND	0.84	10		µg/L	1	11/16/2016 5:19:31 PM	R38763
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/16/2016 5:19:31 PM	R38763
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Styrene	ND	0.11	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/16/2016 5:19:31 PM	R38763
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/16/2016 5:19:31 PM	R38763
Surr: 1,2-Dichloroethane-d4	105	0	70-130		%Rec	1	11/16/2016 5:19:31 PM	R38763
Surr: 4-Bromofluorobenzene	95.3	0	70-130		%Rec	1	11/16/2016 5:19:31 PM	R38763
Surr: Dibromofluoromethane	109	0	70-130		%Rec	1	11/16/2016 5:19:31 PM	R38763
Surr: Toluene-d8	101	0	70-130		%Rec	1	11/16/2016 5:19:31 PM	R38763

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-29
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 11:40:00 AM
Lab ID: 1611785-004
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	11/21/2016 6:07:34 PM	28775
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/17/2016 9:36:02 PM	28698
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/17/2016 9:36:02 PM	28698
Surr: DNOP	105	0	77.1-144		%Rec	1	11/17/2016 9:36:02 PM	28698
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	6.0	0.25	0.50		mg/L	10	11/16/2016 2:31:23 PM	G38747
Surr: BFB	93.0	0	66.4-120		%Rec	10	11/16/2016 2:31:23 PM	G38747
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.070	0.0013	0.0020		mg/L	1	12/6/2016 6:20:01 PM	B39177
Cadmium	ND	0.00075	0.0020		mg/L	1	12/6/2016 6:20:01 PM	B39177
Chromium	ND	0.0018	0.0060		mg/L	1	12/6/2016 6:20:01 PM	B39177
Copper	ND	0.0040	0.0060		mg/L	1	12/6/2016 6:20:01 PM	B39177
Iron	0.32	0.020	0.020	*	mg/L	1	12/6/2016 6:20:01 PM	B39177
Manganese	0.34	0.00032	0.0020	*	mg/L	1	12/6/2016 6:20:01 PM	B39177
Silver	ND	0.0028	0.0050		mg/L	1	12/6/2016 6:20:01 PM	B39177
Zinc	ND	0.0028	0.010		mg/L	1	12/8/2016 1:41:43 PM	A39247
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.071	0.00079	0.0020		mg/L	1	12/8/2016 2:46:16 PM	28978
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 2:46:16 PM	28978
Chromium	ND	0.0027	0.0060		mg/L	1	12/8/2016 2:46:16 PM	28978
Copper	ND	0.0030	0.0060		mg/L	1	12/8/2016 2:46:16 PM	28978
Iron	0.34	0.020	0.020	*	mg/L	1	12/8/2016 2:46:16 PM	28978
Manganese	0.34	0.00027	0.0020	*	mg/L	1	12/8/2016 2:46:16 PM	28978
Silver	ND	0.0015	0.0050		mg/L	1	12/8/2016 2:46:16 PM	28978
Zinc	ND	0.0027	0.010		mg/L	1	12/8/2016 2:46:16 PM	28978
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0027	0.00069	0.0050	J	mg/L	5	11/30/2016 4:26:08 PM	R39071
Lead	ND	0.00017	0.00050		mg/L	1	11/28/2016 5:07:52 PM	C39007
Selenium	0.0076	0.0021	0.010	J	mg/L	10	11/30/2016 4:31:17 PM	R39071
Uranium	0.053	0.00026	0.0025	*	mg/L	5	11/30/2016 4:26:08 PM	R39071
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0023	0.0011	0.0050	J	mg/L	5	12/7/2016 3:34:57 PM	28978
Lead	ND	0.00041	0.0025		mg/L	5	12/7/2016 3:34:57 PM	28978
Selenium	0.0088	0.0037	0.020	J	mg/L	20	12/7/2016 3:50:25 PM	28978
Uranium	0.055	0.00087	0.0025	*	mg/L	5	12/7/2016 3:34:57 PM	28978

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-29
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 11:40:00 AM
Lab ID: 1611785-004
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	0.000060	0.000053	0.00020	J	mg/L	1	11/29/2016 4:15:12 PM	28890
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	7.9	0.48	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
Toluene	ND	0.59	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
Ethylbenzene	1.1	0.56	5.0	J	µg/L	5	11/16/2016 8:41:24 PM	R38763
Methyl tert-butyl ether (MTBE)	3400	11	50		µg/L	50	11/16/2016 8:12:29 PM	R38763
1,2,4-Trimethylbenzene	ND	0.55	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
1,2-Dichloroethane (EDC)	1.8	0.58	5.0	J	µg/L	5	11/16/2016 8:41:24 PM	R38763
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
Naphthalene	ND	0.46	10		µg/L	5	11/16/2016 8:41:24 PM	R38763
1-Methylnaphthalene	ND	1.0	20		µg/L	5	11/16/2016 8:41:24 PM	R38763
2-Methylnaphthalene	ND	0.79	20		µg/L	5	11/16/2016 8:41:24 PM	R38763
Acetone	ND	25	50		µg/L	5	11/16/2016 8:41:24 PM	R38763
Bromobenzene	ND	0.49	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
Bromodichloromethane	ND	0.70	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
Bromoform	ND	0.51	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
Bromomethane	ND	3.9	15		µg/L	5	11/16/2016 8:41:24 PM	R38763
2-Butanone	ND	3.7	50		µg/L	5	11/16/2016 8:41:24 PM	R38763
Carbon disulfide	ND	3.0	50		µg/L	5	11/16/2016 8:41:24 PM	R38763
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
Chlorobenzene	ND	0.57	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
Chloroethane	ND	0.96	10		µg/L	5	11/16/2016 8:41:24 PM	R38763
Chloroform	ND	0.44	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
Chloromethane	ND	1.1	15		µg/L	5	11/16/2016 8:41:24 PM	R38763
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
cis-1,3-Dichloropropene	ND	0.53	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
1,2-Dibromo-3-chloropropane	ND	1.2	10		µg/L	5	11/16/2016 8:41:24 PM	R38763
Dibromochloromethane	ND	0.43	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
Dibromomethane	ND	0.60	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
Dichlorodifluoromethane	ND	1.8	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
1,1-Dichloroethene	ND	0.54	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
1,2-Dichloropropane	ND	0.55	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-29
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 11:40:00 AM
Lab ID: 1611785-004
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
2,2-Dichloropropane	ND	0.83	10		µg/L	5	11/16/2016 8:41:24 PM	R38763
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
2-Hexanone	ND	4.2	50		µg/L	5	11/16/2016 8:41:24 PM	R38763
Isopropylbenzene	ND	0.52	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
4-Methyl-2-pentanone	ND	2.1	50		µg/L	5	11/16/2016 8:41:24 PM	R38763
Methylene Chloride	ND	0.94	15		µg/L	5	11/16/2016 8:41:24 PM	R38763
n-Butylbenzene	ND	0.80	15		µg/L	5	11/16/2016 8:41:24 PM	R38763
n-Propylbenzene	ND	0.66	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
sec-Butylbenzene	ND	0.62	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
Styrene	ND	0.55	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
tert-Butylbenzene	ND	0.58	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
1,1,2,2-Tetrachloroethane	ND	0.64	10		µg/L	5	11/16/2016 8:41:24 PM	R38763
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
trans-1,3-Dichloropropene	ND	0.52	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
1,1,1-Trichloroethane	ND	0.46	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
1,1,2-Trichloroethane	ND	0.64	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
Trichlorofluoromethane	ND	1.0	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
1,2,3-Trichloropropane	ND	1.0	10		µg/L	5	11/16/2016 8:41:24 PM	R38763
Vinyl chloride	ND	0.98	5.0		µg/L	5	11/16/2016 8:41:24 PM	R38763
Xylenes, Total	ND	1.8	7.5		µg/L	5	11/16/2016 8:41:24 PM	R38763
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	5	11/16/2016 8:41:24 PM	R38763
Surr: 4-Bromofluorobenzene	98.0	0	70-130		%Rec	5	11/16/2016 8:41:24 PM	R38763
Surr: Dibromofluoromethane	106	0	70-130		%Rec	5	11/16/2016 8:41:24 PM	R38763
Surr: Toluene-d8	100	0	70-130		%Rec	5	11/16/2016 8:41:24 PM	R38763

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-01
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 1:05:00 PM
Lab ID: 1611785-005
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	11/21/2016 6:22:39 PM	28775
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/17/2016 9:57:52 PM	28698
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/17/2016 9:57:52 PM	28698
Surr: DNOP	101	0	77.1-144		%Rec	1	11/17/2016 9:57:52 PM	28698
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	11/16/2016 2:56:00 PM	G38747
Surr: BFB	89.1	0	66.4-120		%Rec	1	11/16/2016 2:56:00 PM	G38747
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.25	0.050	0.10		mg/L	1	11/16/2016 4:14:07 PM	R38777
Chloride	81	1.0	10		mg/L	20	11/16/2016 4:26:31 PM	R38777
Nitrogen, Nitrite (As N)	ND	0.052	0.10		mg/L	1	11/16/2016 4:14:07 PM	R38777
Bromide	0.27	0.044	0.10		mg/L	1	11/16/2016 4:14:07 PM	R38777
Nitrogen, Nitrate (As N)	0.29	0.041	0.10		mg/L	1	11/16/2016 4:14:07 PM	R38777
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50		mg/L	1	11/16/2016 4:14:07 PM	R38777
Sulfate	160	2.8	10		mg/L	20	11/16/2016 4:26:31 PM	R38777
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.034	0.0013	0.0020		mg/L	1	12/6/2016 6:21:55 PM	B39177
Cadmium	ND	0.00075	0.0020		mg/L	1	12/6/2016 6:21:55 PM	B39177
Calcium	2.1	0.50	1.0		mg/L	1	12/8/2016 1:46:00 PM	A39247
Chromium	ND	0.0018	0.0060		mg/L	1	12/6/2016 6:21:55 PM	B39177
Copper	ND	0.0040	0.0060		mg/L	1	12/6/2016 6:21:55 PM	B39177
Iron	ND	0.020	0.020		mg/L	1	12/6/2016 6:21:55 PM	B39177
Magnesium	ND	0.50	1.0		mg/L	1	12/8/2016 1:46:00 PM	A39247
Manganese	0.0029	0.00032	0.0020		mg/L	1	12/6/2016 6:21:55 PM	B39177
Potassium	0.85	0.50	1.0	J	mg/L	1	12/6/2016 6:21:55 PM	B39177
Silver	ND	0.0028	0.0050		mg/L	1	12/6/2016 6:21:55 PM	B39177
Sodium	300	2.5	5.0		mg/L	5	12/8/2016 1:48:01 PM	A39247
Zinc	ND	0.0028	0.010		mg/L	1	12/8/2016 1:46:00 PM	A39247
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.036	0.00079	0.0020		mg/L	1	12/8/2016 2:54:23 PM	28978
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 2:54:23 PM	28978
Chromium	ND	0.0027	0.0060		mg/L	1	12/8/2016 2:54:23 PM	28978
Copper	ND	0.0030	0.0060		mg/L	1	12/8/2016 2:54:23 PM	28978
Iron	0.24	0.020	0.020		mg/L	1	12/8/2016 2:54:23 PM	28978
Manganese	0.0088	0.00027	0.0020		mg/L	1	12/8/2016 2:54:23 PM	28978
Silver	0.0016	0.0015	0.0050	J	mg/L	1	12/8/2016 2:54:23 PM	28978

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-01
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 1:05:00 PM
Lab ID: 1611785-005
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Zinc	0.025	0.0027	0.010		mg/L	1	12/8/2016 2:54:23 PM	28978
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0012	0.00069	0.0050	J	mg/L	5	11/30/2016 4:36:25 PM	R39071
Lead	ND	0.00017	0.00050		mg/L	1	11/28/2016 5:10:56 PM	C39007
Selenium	0.0047	0.00021	0.0010		mg/L	1	11/28/2016 5:10:56 PM	C39007
Uranium	0.039	0.00026	0.0025	*	mg/L	5	11/30/2016 4:36:25 PM	R39071
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.0011	0.0050		mg/L	5	12/7/2016 3:55:34 PM	28978
Lead	0.00013	0.000081	0.00050	J	mg/L	1	12/5/2016 3:22:39 PM	28978
Selenium	0.0042	0.00094	0.0050	J	mg/L	5	12/7/2016 3:55:34 PM	28978
Uranium	0.039	0.00087	0.0025	*	mg/L	5	12/7/2016 3:55:34 PM	28978
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	0.000078	0.000053	0.00020	J	mg/L	1	11/29/2016 4:17:04 PM	28890
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	1.6	0.096	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Toluene	ND	0.12	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Ethylbenzene	0.39	0.11	1.0	J	µg/L	1	11/16/2016 5:48:15 PM	R38763
Methyl tert-butyl ether (MTBE)	0.88	0.21	1.0	J	µg/L	1	11/16/2016 5:48:15 PM	R38763
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Naphthalene	ND	0.093	2.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Acetone	ND	4.9	10		µg/L	1	11/16/2016 5:48:15 PM	R38763
Bromobenzene	ND	0.098	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Bromoform	ND	0.10	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Bromomethane	ND	0.78	3.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
2-Butanone	ND	0.74	10		µg/L	1	11/16/2016 5:48:15 PM	R38763
Carbon disulfide	ND	0.60	10		µg/L	1	11/16/2016 5:48:15 PM	R38763
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Chloroethane	ND	0.19	2.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Chloroform	ND	0.089	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Chloromethane	ND	0.21	3.0		µg/L	1	11/16/2016 5:48:15 PM	R38763

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-01
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 1:05:00 PM
Lab ID: 1611785-005
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Dibromomethane	ND	0.12	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
2-Hexanone	ND	0.84	10		µg/L	1	11/16/2016 5:48:15 PM	R38763
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/16/2016 5:48:15 PM	R38763
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Styrene	ND	0.11	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763

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Qualifiers:

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-01
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 1:05:00 PM
Lab ID: 1611785-005
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/16/2016 5:48:15 PM	R38763
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/16/2016 5:48:15 PM	R38763
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	1	11/16/2016 5:48:15 PM	R38763
Surr: 4-Bromofluorobenzene	97.4	0	70-130		%Rec	1	11/16/2016 5:48:15 PM	R38763
Surr: Dibromofluoromethane	104	0	70-130		%Rec	1	11/16/2016 5:48:15 PM	R38763
Surr: Toluene-d8	101	0	70-130		%Rec	1	11/16/2016 5:48:15 PM	R38763

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 2:20:00 PM
Lab ID: 1611785-006
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	11/21/2016 6:37:41 PM	28775
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/17/2016 10:19:44 PM	28698
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/17/2016 10:19:44 PM	28698
Surr: DNOP	103	0	77.1-144		%Rec	1	11/17/2016 10:19:44 PM	28698
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.040	0.025	0.050	J	mg/L	1	11/16/2016 3:20:27 PM	G38747
Surr: BFB	92.9	0	66.4-120		%Rec	1	11/16/2016 3:20:27 PM	G38747
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	0.20	0.050	0.10		mg/L	1	11/16/2016 4:38:55 PM	R38777
Chloride	550	2.5	25		mg/L	50	11/24/2016 2:45:13 AM	A38978
Nitrogen, Nitrite (As N)	ND	1.0	2.0		mg/L	20	11/16/2016 4:51:20 PM	R38777
Bromide	0.93	0.044	0.10		mg/L	1	11/16/2016 4:38:55 PM	R38777
Nitrogen, Nitrate (As N)	0.52	0.041	0.10		mg/L	1	11/16/2016 4:38:55 PM	R38777
Phosphorus, Orthophosphate (As P)	ND	0.076	0.50		mg/L	1	11/16/2016 4:38:55 PM	R38777
Sulfate	190	2.8	10		mg/L	20	11/16/2016 4:51:20 PM	R38777
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.051	0.0013	0.0020		mg/L	1	12/6/2016 6:23:54 PM	B39177
Cadmium	ND	0.00075	0.0020		mg/L	1	12/6/2016 6:23:54 PM	B39177
Calcium	80	0.50	1.0		mg/L	1	12/8/2016 1:49:49 PM	A39247
Chromium	ND	0.0018	0.0060		mg/L	1	12/6/2016 6:23:54 PM	B39177
Copper	ND	0.0040	0.0060		mg/L	1	12/6/2016 6:23:54 PM	B39177
Iron	ND	0.020	0.020		mg/L	1	12/6/2016 6:23:54 PM	B39177
Magnesium	14	0.50	1.0		mg/L	1	12/8/2016 1:49:49 PM	A39247
Manganese	0.076	0.00032	0.0020	*	mg/L	1	12/6/2016 6:23:54 PM	B39177
Potassium	1.6	0.50	1.0		mg/L	1	12/6/2016 6:23:54 PM	B39177
Silver	ND	0.0028	0.0050		mg/L	1	12/6/2016 6:23:54 PM	B39177
Sodium	630	5.0	10		mg/L	10	12/8/2016 2:41:59 PM	A39247
Zinc	0.014	0.0028	0.010		mg/L	1	12/8/2016 1:49:49 PM	A39247
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.047	0.00079	0.0020		mg/L	1	12/8/2016 2:56:24 PM	28978
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 2:56:24 PM	28978
Chromium	ND	0.0027	0.0060		mg/L	1	12/8/2016 2:56:24 PM	28978
Copper	ND	0.0030	0.0060		mg/L	1	12/8/2016 2:56:24 PM	28978
Iron	ND	0.020	0.020		mg/L	1	12/8/2016 2:56:24 PM	28978
Manganese	0.047	0.00027	0.0020		mg/L	1	12/8/2016 2:56:24 PM	28978
Silver	0.0027	0.0015	0.0050	J	mg/L	1	12/8/2016 2:56:24 PM	28978

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 2:20:00 PM
Lab ID: 1611785-006
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Zinc	ND	0.0027	0.010		mg/L	1	12/8/2016 2:56:24 PM	28978
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0024	0.00069	0.0050	J	mg/L	5	11/30/2016 4:41:33 PM	R39071
Lead	0.00017	0.00017	0.00050	J	mg/L	1	11/28/2016 5:13:59 PM	C39007
Selenium	0.016	0.00021	0.0010		mg/L	1	11/28/2016 5:13:59 PM	C39007
Uranium	0.056	0.00026	0.0025	*	mg/L	5	11/30/2016 4:41:33 PM	R39071
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.0021	0.0011	0.0050	J	mg/L	5	12/7/2016 4:05:50 PM	28978
Lead	ND	0.00041	0.0025		mg/L	5	12/7/2016 4:05:50 PM	28978
Selenium	0.016	0.00094	0.0050		mg/L	5	12/7/2016 4:05:50 PM	28978
Uranium	0.055	0.00087	0.0025	*	mg/L	5	12/7/2016 4:05:50 PM	28978
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	0.000062	0.000053	0.00020	J	mg/L	1	11/29/2016 3:53:40 PM	28890
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Toluene	ND	0.12	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Methyl tert-butyl ether (MTBE)	28	0.21	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,2-Dichloroethane (EDC)	0.52	0.12	1.0	J	µg/L	1	11/16/2016 6:16:55 PM	R38763
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Naphthalene	ND	0.093	2.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Acetone	ND	4.9	10		µg/L	1	11/16/2016 6:16:55 PM	R38763
Bromobenzene	ND	0.098	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Bromoform	ND	0.10	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Bromomethane	ND	0.78	3.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
2-Butanone	ND	0.74	10		µg/L	1	11/16/2016 6:16:55 PM	R38763
Carbon disulfide	ND	0.60	10		µg/L	1	11/16/2016 6:16:55 PM	R38763
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Chloroethane	ND	0.19	2.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Chloroform	ND	0.089	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Chloromethane	ND	0.21	3.0		µg/L	1	11/16/2016 6:16:55 PM	R38763

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 2:20:00 PM
Lab ID: 1611785-006 **Matrix:** AQUEOUS **Received Date:** 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
cis-1,2-DCE	0.28	0.12	1.0	J	µg/L	1	11/16/2016 6:16:55 PM	R38763
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Dibromomethane	ND	0.12	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,1-Dichloroethane	0.85	0.11	1.0	J	µg/L	1	11/16/2016 6:16:55 PM	R38763
1,1-Dichloroethene	0.67	0.11	1.0	J	µg/L	1	11/16/2016 6:16:55 PM	R38763
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
2-Hexanone	ND	0.84	10		µg/L	1	11/16/2016 6:16:55 PM	R38763
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/16/2016 6:16:55 PM	R38763
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Styrene	ND	0.11	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 2:20:00 PM
Lab ID: 1611785-006
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/16/2016 6:16:55 PM	R38763
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/16/2016 6:16:55 PM	R38763
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	1	11/16/2016 6:16:55 PM	R38763
Surr: 4-Bromofluorobenzene	99.3	0	70-130		%Rec	1	11/16/2016 6:16:55 PM	R38763
Surr: Dibromofluoromethane	111	0	70-130		%Rec	1	11/16/2016 6:16:55 PM	R38763
Surr: Toluene-d8	103	0	70-130		%Rec	1	11/16/2016 6:16:55 PM	R38763

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP-02
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 10:35:00 AM
Lab ID: 1611785-007
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	11/21/2016 6:52:43 PM	28775
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: **JME**	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	11/17/2016 10:41:36 PM	28698
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	11/17/2016 10:41:36 PM	28698
Surr: DNOP	107	0	77.1-144		%Rec	1	11/17/2016 10:41:36 PM	28698
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	0.063	0.025	0.050		mg/L	1	11/16/2016 3:44:50 PM	G38747
Surr: BFB	89.9	0	66.4-120		%Rec	1	11/16/2016 3:44:50 PM	G38747
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.020	0.0013	0.0020		mg/L	1	12/6/2016 6:25:55 PM	B39177
Cadmium	ND	0.00075	0.0020		mg/L	1	12/6/2016 6:25:55 PM	B39177
Chromium	ND	0.0018	0.0060		mg/L	1	12/6/2016 6:25:55 PM	B39177
Copper	ND	0.0040	0.0060		mg/L	1	12/6/2016 6:25:55 PM	B39177
Iron	ND	0.020	0.020		mg/L	1	12/6/2016 6:25:55 PM	B39177
Manganese	0.021	0.00032	0.0020		mg/L	1	12/6/2016 6:25:55 PM	B39177
Silver	ND	0.0028	0.0050		mg/L	1	12/6/2016 6:25:55 PM	B39177
Zinc	ND	0.0028	0.010		mg/L	1	12/9/2016 12:12:43 PM	A39280
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.020	0.00079	0.0020		mg/L	1	12/8/2016 2:58:21 PM	28978
Cadmium	ND	0.0015	0.0020		mg/L	1	12/8/2016 2:58:21 PM	28978
Chromium	ND	0.0027	0.0060		mg/L	1	12/8/2016 2:58:21 PM	28978
Copper	ND	0.0030	0.0060		mg/L	1	12/8/2016 2:58:21 PM	28978
Iron	ND	0.020	0.020		mg/L	1	12/8/2016 2:58:21 PM	28978
Manganese	0.021	0.00027	0.0020		mg/L	1	12/8/2016 2:58:21 PM	28978
Silver	0.0018	0.0015	0.0050	J	mg/L	1	12/8/2016 2:58:21 PM	28978
Zinc	ND	0.0027	0.010		mg/L	1	12/8/2016 2:58:21 PM	28978
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0014	0.00069	0.0050	J	mg/L	5	11/30/2016 4:46:41 PM	R39071
Lead	ND	0.00017	0.00050		mg/L	1	11/28/2016 5:17:02 PM	C39007
Selenium	0.0026	0.0011	0.0050	J	mg/L	5	11/30/2016 4:46:41 PM	R39071
Uranium	0.017	0.000051	0.00050		mg/L	1	11/28/2016 5:17:02 PM	C39007
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	ND	0.0011	0.0050		mg/L	5	12/7/2016 4:16:06 PM	28978
Lead	ND	0.000081	0.00050		mg/L	1	12/5/2016 3:28:39 PM	28978
Selenium	0.0025	0.00094	0.0050	J	mg/L	5	12/7/2016 4:16:06 PM	28978
Uranium	0.018	0.00017	0.00050		mg/L	1	12/5/2016 3:28:39 PM	28978

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP-02
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 10:35:00 AM
Lab ID: 1611785-007
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 245.1: MERCURY							Analyst: **JLF**	
Mercury	0.000063	0.000053	0.00020	J	mg/L	1	11/29/2016 3:55:24 PM	28890
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Toluene	ND	0.12	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Methyl tert-butyl ether (MTBE)	44	0.21	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,2-Dichloroethane (EDC)	0.73	0.12	1.0	J	µg/L	1	11/16/2016 6:45:45 PM	R38763
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Naphthalene	ND	0.093	2.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Acetone	ND	4.9	10		µg/L	1	11/16/2016 6:45:45 PM	R38763
Bromobenzene	ND	0.098	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Bromoform	ND	0.10	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Bromomethane	ND	0.78	3.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
2-Butanone	ND	0.74	10		µg/L	1	11/16/2016 6:45:45 PM	R38763
Carbon disulfide	ND	0.60	10		µg/L	1	11/16/2016 6:45:45 PM	R38763
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Chloroethane	ND	0.19	2.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Chloroform	ND	0.089	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Chloromethane	ND	0.21	3.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Dibromomethane	ND	0.12	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: DUP-02
Project: 2016 4th Quarter OW Wells
Collection Date: 11/15/2016 10:35:00 AM
Lab ID: 1611785-007
Matrix: AQUEOUS
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
2-Hexanone	ND	0.84	10		µg/L	1	11/16/2016 6:45:45 PM	R38763
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/16/2016 6:45:45 PM	R38763
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Styrene	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/16/2016 6:45:45 PM	R38763
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/16/2016 6:45:45 PM	R38763
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	11/16/2016 6:45:45 PM	R38763
Surr: 4-Bromofluorobenzene	97.4	0	70-130		%Rec	1	11/16/2016 6:45:45 PM	R38763
Surr: Dibromofluoromethane	111	0	70-130		%Rec	1	11/16/2016 6:45:45 PM	R38763
Surr: Toluene-d8	103	0	70-130		%Rec	1	11/16/2016 6:45:45 PM	R38763

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Qualifiers:

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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 4th Quarter OW Wells
Collection Date:
Lab ID: 1611785-008
Matrix: TRIP BLANK
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.096	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Toluene	0.12	0.12	1.0	J	µg/L	1	11/16/2016 4:21:55 PM	R38763
Ethylbenzene	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,2,4-Trimethylbenzene	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Naphthalene	ND	0.093	2.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Acetone	ND	4.9	10		µg/L	1	11/16/2016 4:21:55 PM	R38763
Bromobenzene	ND	0.098	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Bromodichloromethane	ND	0.14	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Bromoform	ND	0.10	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Bromomethane	ND	0.78	3.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
2-Butanone	ND	0.74	10		µg/L	1	11/16/2016 4:21:55 PM	R38763
Carbon disulfide	ND	0.60	10		µg/L	1	11/16/2016 4:21:55 PM	R38763
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Chlorobenzene	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Chloroethane	ND	0.19	2.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Chloroform	ND	0.089	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Chloromethane	ND	0.21	3.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
cis-1,3-Dichloropropene	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,2-Dibromo-3-chloropropane	ND	0.23	2.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Dibromochloromethane	ND	0.087	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Dibromomethane	ND	0.12	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Dichlorodifluoromethane	ND	0.36	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,2-Dichloropropane	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
2,2-Dichloropropane	ND	0.17	2.0		µg/L	1	11/16/2016 4:21:55 PM	R38763

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2016 4th Quarter OW Wells
Collection Date:
Lab ID: 1611785-008
Matrix: TRIP BLANK
Received Date: 11/15/2016 5:15:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
2-Hexanone	ND	0.84	10		µg/L	1	11/16/2016 4:21:55 PM	R38763
Isopropylbenzene	ND	0.10	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
4-Methyl-2-pentanone	ND	0.43	10		µg/L	1	11/16/2016 4:21:55 PM	R38763
Methylene Chloride	ND	0.19	3.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
n-Butylbenzene	ND	0.16	3.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
n-Propylbenzene	ND	0.13	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
sec-Butylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Styrene	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
tert-Butylbenzene	ND	0.12	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
trans-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Trichlorofluoromethane	ND	0.20	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
1,2,3-Trichloropropane	ND	0.20	2.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Vinyl chloride	ND	0.20	1.0		µg/L	1	11/16/2016 4:21:55 PM	R38763
Xylenes, Total	ND	0.37	1.5		µg/L	1	11/16/2016 4:21:55 PM	R38763
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	1	11/16/2016 4:21:55 PM	R38763
Surr: 4-Bromofluorobenzene	99.3	0	70-130		%Rec	1	11/16/2016 4:21:55 PM	R38763
Surr: Dibromofluoromethane	103	0	70-130		%Rec	1	11/16/2016 4:21:55 PM	R38763
Surr: Toluene-d8	102	0	70-130		%Rec	1	11/16/2016 4:21:55 PM	R38763

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Qualifiers:

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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Quarter OW Wells

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B39177**	RunNo: **39177**
Prep Date:	Analysis Date: **12/6/2016**	SeqNo: **1226115** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B39177**	RunNo: **39177**
Prep Date:	Analysis Date: **12/6/2016**	SeqNo: **1226116** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.8	85	115			
Cadmium	0.49	0.0020	0.5000	0	99.0	85	115			
Chromium	0.47	0.0060	0.5000	0	94.7	85	115			
Copper	0.47	0.0060	0.5000	0	94.3	85	115			
Iron	0.48	0.020	0.5000	0	96.7	85	115			
Manganese	0.47	0.0020	0.5000	0	94.6	85	115			
Potassium	57	1.0	50.00	0	114	85	115			
Silver	0.099	0.0050	0.1000	0	98.8	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B39177**	RunNo: **39177**
Prep Date:	Analysis Date: **12/6/2016**	SeqNo: **1226383** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0018	0.0020	0.002000	0	91.5	50	150			J
Cadmium	0.0021	0.0020	0.002000	0	106	50	150			
Chromium	0.0056	0.0060	0.006000	0	93.0	50	150			J
Copper	0.0040	0.0060	0.006000	0	67.0	50	150			J
Iron	0.022	0.020	0.02000	0	109	50	150			
Manganese	0.0022	0.0020	0.002000	0	108	50	150			
Potassium	0.67	1.0	0.5000	0	134	50	150			J
Silver	0.0050	0.0050	0.005000	0	101	50	150			

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Quarter OW Wells

Sample ID	**MB-A**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**A39247**	RunNo:	**39247**					
Prep Date:		Analysis Date:	**12/8/2016**	SeqNo:	**1228271**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID	**LCS-A**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID:	**A39247**	RunNo:	**39247**					
Prep Date:		Analysis Date:	**12/8/2016**	SeqNo:	**1228272**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.4	85	115			
Calcium	51	1.0	50.00	0	103	85	115			
Iron	0.49	0.020	0.5000	0	97.9	85	115			
Magnesium	52	1.0	50.00	0	103	85	115			
Manganese	0.49	0.0020	0.5000	0	97.6	85	115			
Zinc	0.49	0.010	0.5000	0	99.0	85	115			

Sample ID	**LLLCS-A**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**A39247**	RunNo:	**39247**					
Prep Date:		Analysis Date:	**12/8/2016**	SeqNo:	**1228273**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	97.5	50	150			J
Calcium	0.58	1.0	0.5000	0	115	50	150			J
Iron	0.024	0.020	0.02000	0	122	50	150			
Magnesium	0.55	1.0	0.5000	0	111	50	150			J
Manganese	0.0024	0.0020	0.002000	0	123	50	150			
Zinc	0.0067	0.010	0.005000	0	134	50	150			J

Sample ID	**MB-A**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**A39280**	RunNo:	**39280**					
Prep Date:		Analysis Date:	**12/9/2016**	SeqNo:	**1229491**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Quarter OW Wells

Sample ID	**LCS-A**	SampType: **LCS**			TestCode: **EPA Method 200.7: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID: **A39280**			RunNo: **39280**					
Prep Date:		Analysis Date: **12/9/2016**			SeqNo: **1229492**		Units: **mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc		0.44	0.010	0.5000	0	89.0	85	115			

Sample ID	**LLLCS-A**	SampType: **LCSLL**			TestCode: **EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID: **A39280**			RunNo: **39280**					
Prep Date:		Analysis Date: **12/9/2016**			SeqNo: **1229493**		Units: **mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc		0.0050	0.010	0.005000	0	99.8	50	150			J

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Quarter OW Wells

Sample ID	**MB-28978**	SampType:	**MBLK**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**PBW**	Batch ID:	**28978**	RunNo:	**39177**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/6/2016**	SeqNo:	**1225905**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID	**LCS-28978**	SampType:	**LCS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**LCSW**	Batch ID:	**28978**	RunNo:	**39177**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/6/2016**	SeqNo:	**1225906**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0	103	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Chromium	0.51	0.0060	0.5000	0	101	85	115			
Copper	0.47	0.0060	0.5000	0	94.6	85	115			
Iron	0.51	0.020	0.5000	0	103	85	115			
Manganese	0.50	0.0020	0.5000	0	101	85	115			
Silver	0.093	0.0050	0.1000	0	92.8	85	115			

Sample ID	**LLLCS-28978**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**BatchQC**	Batch ID:	**28978**	RunNo:	**39177**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/6/2016**	SeqNo:	**1225907**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0016	0.0020	0.002000	0	79.0	50	150			J
Cadmium	0.0020	0.0020	0.002000	0	97.5	50	150			J
Chromium	0.0063	0.0060	0.006000	0	105	50	150			
Copper	0.0033	0.0060	0.006000	0	54.5	50	150			J
Iron	0.020	0.020	0.02000	0	102	50	150			
Manganese	0.0022	0.0020	0.002000	0	108	50	150			
Silver	0.0051	0.0050	0.005000	0	101	50	150			

Sample ID	**1611785-002EMS**	SampType:	**MS**	TestCode:	**EPA Method 200.7: Total Metals**					
Client ID:	**OW-14**	Batch ID:	**28978**	RunNo:	**39177**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/6/2016**	SeqNo:	**1225936**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.53	0.0020	0.5000	0	105	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Quarter OW Wells

Sample ID	**1611785-002EMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-14**	Batch ID:	**28978**		RunNo:	**39177**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/6/2016**		SeqNo:	**1225936**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.51	0.0060	0.5000	0	102	70	130			
Copper	0.50	0.0060	0.5000	0	99.9	70	130			
Silver	0.093	0.0050	0.1000	0	92.8	70	130			

Sample ID	**1611785-002EMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-14**	Batch ID:	**28978**		RunNo:	**39177**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/6/2016**		SeqNo:	**1225937**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.53	0.0020	0.5000	0	106	70	130	0.740	20	
Chromium	0.51	0.0060	0.5000	0	102	70	130	0.418	20	
Copper	0.50	0.0060	0.5000	0	100	70	130	0.507	20	
Silver	0.095	0.0050	0.1000	0	94.8	70	130	2.16	20	

Sample ID	**MB-28978**	SampType:	**MBLK**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**PBW**	Batch ID:	**28978**		RunNo:	**39177**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/6/2016**		SeqNo:	**1226430**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Sample ID	**LLLCS-28978**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**BatchQC**	Batch ID:	**28978**		RunNo:	**39177**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/6/2016**		SeqNo:	**1226431**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.0054	0.010	0.005000	0	108	50	150			J

Sample ID	**LCS-28978**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**LCSW**	Batch ID:	**28978**		RunNo:	**39177**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/6/2016**		SeqNo:	**1226432**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.47	0.010	0.5000	0	94.9	85	115			

Sample ID	**1611785-002EMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**OW-14**	Batch ID:	**28978**		RunNo:	**39247**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/8/2016**		SeqNo:	**1228494**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Quarter OW Wells

Sample ID	**1611785-002EMS**	SampType: **MS**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**OW-14**	Batch ID: **28978**			RunNo: **39247**					
Prep Date:	**12/2/2016**	Analysis Date: **12/8/2016**			SeqNo: **1228494**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.48	0.010	0.5000	0	96.5	70	130			

Sample ID	**1611785-002EMSD**	SampType: **MSD**			TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**OW-14**	Batch ID: **28978**			RunNo: **39247**					
Prep Date:	**12/2/2016**	Analysis Date: **12/8/2016**			SeqNo: **1228495**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.49	0.010	0.5000	0	98.2	70	130	1.72	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Quarter OW Wells

Sample ID	**1611785-002DMSLL**	SampType:	**MS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**OW-14**	Batch ID:	**C39007**		RunNo:	**39007**				
Prep Date:		Analysis Date:	**11/28/2016**		SeqNo:	**1219978**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.013	0.00050	0.01250	0	108	70	130			
Uranium	0.019	0.00050	0.01250	0.004831	116	70	130			

Sample ID	**LCS**	SampType:	**LCS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**LCSW**	Batch ID:	**C39007**		RunNo:	**39007**				
Prep Date:		Analysis Date:	**11/28/2016**		SeqNo:	**1220004**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.012	0.00050	0.01250	0	96.9	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.012	0.00050	0.01250	0	96.7	85	115			

Sample ID	**LLLCS**	SampType:	**LCSLL**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**BatchQC**	Batch ID:	**C39007**		RunNo:	**39007**				
Prep Date:		Analysis Date:	**11/28/2016**		SeqNo:	**1220005**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00049	0.00050	0.0005000	0	97.6	50	150			J
Selenium	0.0011	0.0010	0.001000	0	106	50	150			
Uranium	0.00050	0.00050	0.0005000	0	100	50	150			

Sample ID	**MB**	SampType:	**MBLK**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**PBW**	Batch ID:	**C39007**		RunNo:	**39007**				
Prep Date:		Analysis Date:	**11/28/2016**		SeqNo:	**1220009**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**1611785-002DMSLL**	SampType:	**MS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**OW-14**	Batch ID:	**R39071**		RunNo:	**39071**				
Prep Date:		Analysis Date:	**11/30/2016**		SeqNo:	**1222027**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.14	0.0050	0.1250	0.009917	105	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Quarter OW Wells

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R39071**	RunNo: **39071**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1222065** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	102	85	115			
Selenium	0.027	0.0010	0.02500	0	107	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R39071**	RunNo: **39071**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1222066** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.027	0.0010	0.02500	0	108	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R39071**	RunNo: **39071**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1222067** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00099	0.0010	0.001000	0	98.5	50	150			J
Selenium	0.00097	0.0010	0.001000	0	97.3	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	98.4	50	150			J

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R39071**	RunNo: **39071**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1222068** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	101	50	150			
Selenium	0.0011	0.0010	0.001000	0	105	50	150			
Uranium	0.00048	0.00050	0.0005000	0	96.9	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R39071**	RunNo: **39071**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1222069** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Quarter OW Wells

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R39071**	RunNo: **39071**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1222070** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Quarter OW Wells

Sample ID	**MB-28978**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**28978**	RunNo:	**39143**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/5/2016**	SeqNo:	**1224658**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-28978**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**28978**	RunNo:	**39143**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/5/2016**	SeqNo:	**1224660**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.7	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	97.3	85	115			
Uranium	0.012	0.00050	0.01250	0	100	85	115			

Sample ID	**MSLLLCS-28978**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**28978**	RunNo:	**39143**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/5/2016**	SeqNo:	**1224662**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00091	0.0010	0.001000	0	91.0	50	150			J
Lead	0.00048	0.00050	0.0005000	0	95.9	50	150			J
Selenium	0.00095	0.0010	0.001000	0	94.8	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	97.9	50	150			J

Sample ID	**1611785-003EMSDL**	SampType:	**MSDLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**OW-13**	Batch ID:	**28978**	RunNo:	**39143**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/5/2016**	SeqNo:	**1225638**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0.001600	101	70	130	0.376	20	
Lead	0.013	0.00050	0.01250	0	105	70	130	0.170	20	

Sample ID	**1611785-003EMSLL**	SampType:	**MSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**OW-13**	Batch ID:	**28978**	RunNo:	**39143**					
Prep Date:	**12/2/2016**	Analysis Date:	**12/5/2016**	SeqNo:	**1225639**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0.001600	100	70	130			
Lead	0.013	0.00050	0.01250	0	105	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Quarter OW Wells

Sample ID	**1611785-003EMSDL**	SampType:	**MSDLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**OW-13**	Batch ID:	**28978**		RunNo:	**39218**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/7/2016**		SeqNo:	**1227778**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.028	0.0050	0.02500	0.003275	99.6	70	130	4.06	20	
Uranium	0.030	0.0025	0.01250	0.01676	103	70	130	2.70	20	

Sample ID	**1611785-003EMSLL**	SampType:	**MSLL**		TestCode:	**200.8 ICPMS Metals:Total**				
Client ID:	**OW-13**	Batch ID:	**28978**		RunNo:	**39218**				
Prep Date:	**12/2/2016**	Analysis Date:	**12/7/2016**		SeqNo:	**1227779**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.029	0.0050	0.02500	0.003275	104	70	130			
Uranium	0.030	0.0025	0.01250	0.01676	110	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Quarter OW Wells

Sample ID	**MB-28890**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**28890**	RunNo:	**39024**					
Prep Date:	**11/29/2016**	Analysis Date:	**11/29/2016**	SeqNo:	**1220570**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000067	0.00020								J

Sample ID	**LCS-28890**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**28890**	RunNo:	**39024**					
Prep Date:	**11/29/2016**	Analysis Date:	**11/29/2016**	SeqNo:	**1220571**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.5	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Quarter OW Wells

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R38777**	RunNo: **38777**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211577** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R38777**	RunNo: **38777**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211578** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	106	90	110			
Chloride	4.8	0.50	5.000	0	95.6	90	110			
Nitrogen, Nitrite (As N)	0.96	0.10	1.000	0	95.5	90	110			
Bromide	2.5	0.10	2.500	0	98.4	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	102	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.8	90	110			
Sulfate	9.9	0.50	10.00	0	98.6	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **A38978**	RunNo: **38978**
Prep Date:	Analysis Date: **11/24/2016**	SeqNo: **1218903** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A38978**	RunNo: **38978**
Prep Date:	Analysis Date: **11/24/2016**	SeqNo: **1218904** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.8	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Quarter OW Wells

Sample ID	**MB-28775**	SampType:	**MBLK**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**PBW**	Batch ID:	**28775**	RunNo:	**38889**					
Prep Date:	**11/21/2016**	Analysis Date:	**11/21/2016**	SeqNo:	**1215711**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID	**LCS-28775**	SampType:	**LCS**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**LCSW**	Batch ID:	**28775**	RunNo:	**38889**					
Prep Date:	**11/21/2016**	Analysis Date:	**11/21/2016**	SeqNo:	**1215713**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.11	0.010	0.1000	0	105	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Quarter OW Wells

Sample ID **MB-28698**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **PBW**	Batch ID: **28698**	RunNo: **38769**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1212026** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		104	77.1	144			

Sample ID **LCS-28698**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range**
Client ID: **LCSW**	Batch ID: **28698**	RunNo: **38769**
Prep Date: **11/16/2016**	Analysis Date: **11/17/2016**	SeqNo: **1212027** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	115	63.2	155			
Surr: DNOP	0.52		0.5000		104	77.1	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**
19-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Quarter OW Wells

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **G38747**	RunNo: **38747**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1210964** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		93.4	66.4	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **G38747**	RunNo: **38747**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1210965** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	91.4	80	120			
Surr: BFB	19		20.00		97.0	66.4	120			

Sample ID **1611785-002AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **OW-14**	Batch ID: **G38747**	RunNo: **38747**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1210967** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	50	2.5	25.00	29.00	85.6	64.8	129			
Surr: BFB	1100		1000		105	66.4	120			

Sample ID **1611785-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **OW-14**	Batch ID: **G38747**	RunNo: **38747**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1210968** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	50	2.5	25.00	29.00	85.0	64.8	129	0.278	20	
Surr: BFB	1000		1000		105	66.4	120	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Quarter OW Wells

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R38763**	RunNo: **38763**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211136** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.7	70	130			
Toluene	19	1.0	20.00	0	96.2	70	130			
Chlorobenzene	18	1.0	20.00	0	92.3	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	104	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	91.6	70	130			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		98.9	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.3	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	10		10.00		99.7	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38763**	RunNo: **38763**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211137** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**
19-Dec-16

Client: Western Refining Southwest, Gallup
Project: 2016 4th Quarter OW Wells

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38763**	RunNo: **38763**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211137** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611785**

19-Dec-16

Client: Western Refining Southwest, Gallup

Project: 2016 4th Quarter OW Wells

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R38763**	RunNo: **38763**
Prep Date:	Analysis Date: **11/16/2016**	SeqNo: **1211137** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.1	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.0	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	9.9		10.00		99.2	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1611785** RcptNo: **1**

Received by/date: KM 11/15/16

Logged By: **Ashley Gallegos** **11/15/2016 5:15:00 PM** AG

Completed By: **Ashley Gallegos** **11/16/2016 8:00:51 AM** AG

Reviewed By: aj 11/16/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	~~Yes ☑~~	No ☑ Re	
9. Was preservative added to bottles?	Yes ☑ Re	~~No ☑~~	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 14
(<2 or >12 unless noted)
Adjusted? Yes
Checked by: Re

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

17. Additional remarks: For metals analysis, 1 mL HNO_3 was added to 002E for acceptable pH. 11/16/16 0933 Re

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.4	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

92 Giant Crossing Road, Gallup, NM 87301

Phone #: 505-722-3833

Email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:

X Standard ☐ Rush_____

Project Name:

2016 4th Quarter OW Wells

Project #:

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: Cjohnson WNR

On Ice: ☐ Yes ☐ No

Sample Temperature: 3.2

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1611785	8260+MTBE	WQCC Metals - Total	WQCC Metals - Dissolved - Filtered	8015D (GRO/DRO/MRO)	8011 FOR EDB	MAJOR CATIONS/ANIONS									Air Bubbles (Y or N)
11/15/2016	700	aqueous	FIELD BLANK	3-40ML VOAS	HCL	-001	X														
11/15/2016	920	aqueous	OW-14	Misc	Misc	-002	X	X	X	X	X										
11/15/2016	1035	aqueous	OW-13	Misc	Misc	-003	X	X	X	X	X										
11/15/2016	1140	aqueous	OW-29	Misc	Misc	-004	X	X	X	X	X										
11/15/2016	1305	aqueous	OW-01	Misc	Misc	-005	X	X	X	X		X									
11/15/2016	1420	aqueous	OW-10	Misc	Misc	-006	X	X	X	X		X									
11/15/2016	1035	aqueous	DUP-02	Misc	Misc	-007	X	X	X	X	X										
10/27/2015		aqueous	TRIP BLANK	3-40ML VOAS	HCL	-008	X														

Date	Time	Relinquished by:	Received by:	Date	Time
11-15-16	1520			11/15/16	15:21
11/15/16	1715			11/15/16	1715

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 30, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: Pond Sampling OrderNo.: 1603422

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 3/8/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Case Narrative

WO#: **1603422**
Date: **3/30/2016**

CLIENT: Western Refining Southwest, Gallup
Project: Pond Sampling

Analytical Notes Regarding BOD:
Sample "Pond 2" is reported with a > result due to the bottles having a DO depletion below 1.0mg/L.

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12B
Project: Pond Sampling
Collection Date: 3/8/2016 10:15:00 AM
Lab ID: 1603422-001
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM5210B: BOD							Analyst: **MRA**	
Biochemical Oxygen Demand	240	2.0	2.0		mg/L	1	3/14/2016 8:23:00 AM	24146
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: **MRA**	
Total Coliform	>2419.6	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138
E. Coli	770.1	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12A
Project: Pond Sampling
Collection Date: 3/8/2016 10:25:00 AM
Lab ID: 1603422-002
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM5210B: BOD							Analyst: **MRA**	
Biochemical Oxygen Demand	130	2.0	2.0		mg/L	1	3/14/2016 8:23:00 AM	24146
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: **MRA**	
Total Coliform	980.4	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138
E. Coli	21.6	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 11
Project: Pond Sampling
Collection Date: 3/8/2016 10:31:00 AM
Lab ID: 1603422-003
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM5210B: BOD							Analyst: **MRA**	
Biochemical Oxygen Demand	18	2.0	2.0		mg/L	1	3/14/2016 8:23:00 AM	24146
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: **MRA**	
Total Coliform	<1	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138
E. Coli	<1	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7
Project: Pond Sampling
Collection Date: 3/8/2016 10:37:00 AM
Lab ID: 1603422-004
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM5210B: BOD							Analyst: **MRA**	
Biochemical Oxygen Demand	41	2.0	2.0		mg/L	1	3/14/2016 8:23:00 AM	24146
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: **MRA**	
Total Coliform	3.1	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138
E. Coli	<1	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 5
Project: Pond Sampling
Collection Date: 3/8/2016 10:45:00 AM
Lab ID: 1603422-005
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM5210B: BOD							Analyst: **MRA**	
Biochemical Oxygen Demand	63	2.0	2.0		mg/L	1	3/14/2016 8:23:00 AM	24146
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: **MRA**	
Total Coliform	613.1	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138
E. Coli	1.0	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 4
Project: Pond Sampling
Collection Date: 3/8/2016 10:51:00 AM
Lab ID: 1603422-006
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM5210B: BOD							Analyst: **MRA**	
Biochemical Oxygen Demand	190	2.0	2.0		mg/L	1	3/14/2016 8:23:00 AM	24146
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: **MRA**	
Total Coliform	2419.6	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138
E. Coli	36.3	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 3
Project: Pond Sampling
Collection Date: 3/8/2016 10:58:00 AM
Lab ID: 1603422-007
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM5210B: BOD							Analyst: **MRA**	
Biochemical Oxygen Demand	240	2.0	2.0		mg/L	1	3/14/2016 8:23:00 AM	24146
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: **MRA**	
Total Coliform	>2419.6	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138
E. Coli	1732.9	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 2
Project: Pond Sampling
Collection Date: 3/8/2016 11:04:00 AM
Lab ID: 1603422-008
Matrix: AQUEOUS
Received Date: 3/8/2016 3:23:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM5210B: BOD							Analyst: **MRA**	
Biochemical Oxygen Demand	>413.04	2.0	2.0		mg/L	1	3/14/2016 8:23:00 AM	24146
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: **MRA**	
Total Coliform	>2419.6	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138
E. Coli	>2419.6	1.000	1.000		CFU/100	1	3/9/2016 5:10:00 PM	24138

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	806		10.0	1	03/14/2016 12:21	WG855950

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	867		10.0	1	03/14/2016 12:22	WG855950

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	210		200	20	03/14/2016 12:27	WG855951

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	820		10.0	1	03/14/2016 12:27	WG855951

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	537		50.0	5	03/15/2016 10:51	WG856203

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	569		50.0	5	03/15/2016 10:51	WG856203

Wet Chemistry by Method 410.4

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
COD	627		50.0	5	03/15/2016 10:51	WG856203

2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	977		10.0	1	03/14/2016 12:29	WG855951

Method Blank (MB)

(MB) 03/14/16 12:19

	MB Result	MB Qualifier	MB RDL
Analyte	mg/l		mg/l
COD	ND		10.0

L822580-01 Original Sample (OS) • Duplicate (DUP)

(OS) 03/14/16 12:20 • (DUP) 03/14/16 12:20

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
COD	45.4	46.9	1	3.00		20

L822581-01 Original Sample (OS) • Duplicate (DUP)

(OS) 03/14/16 12:21 • (DUP) 03/14/16 12:21

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
COD	14.8	14.8	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 03/14/16 12:19 • (LCSD) 03/14/16 12:19

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
COD	242	239	239	99.0	99.0	90.0-110			0.000	20

L822581-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 03/14/16 12:21 • (MS) 03/14/16 12:21 • (MSD) 03/14/16 12:21

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
COD	400	91.7	478	478	97.0	97.0	1	80.0-120			0.000	20

Method Blank (MB)

(MB) 03/14/16 12:27

	MB Result	MB Qualifier	MB RDL
Analyte	mg/l		mg/l
COD	ND		10.0

L822685-01 Original Sample (OS) • Duplicate (DUP)

(OS) 03/14/16 12:29 • (DUP) 03/14/16 12:29

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
COD	55.8	55.4	1	1.00		20

L822761-01 Original Sample (OS) • Duplicate (DUP)

(OS) 03/14/16 12:30 • (DUP) 03/14/16 12:30

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
COD	ND	ND	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 03/14/16 12:27 • (LCSD) 03/14/16 12:27

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
COD	242	231	231	96.0	96.0	90.0-110			0.000	20

L822772-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 03/14/16 12:30 • (MS) 03/14/16 12:30 • (MSD) 03/14/16 12:31

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
COD	400	850	1180	1180	82.0	82.0	1	80.0-120			0.000	20

Method Blank (MB)

(MB) 03/15/16 10:49

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
COD	ND		10.0

L822907-01 Original Sample (OS) • Duplicate (DUP)

(OS) 03/15/16 10:52 • (DUP) 03/15/16 10:52

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
COD	136	134	1	2.00		20

L822933-01 Original Sample (OS) • Duplicate (DUP)

(OS) 03/15/16 10:54 • (DUP) 03/15/16 10:54

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
COD	35.4	35.2	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 03/15/16 10:50 • (LCSD) 03/15/16 10:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
COD	242	243	242	100	100	90.0-110			0.000	20

L822943-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 03/15/16 10:54 • (MS) 03/15/16 10:54 • (MSD) 03/15/16 10:54

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
COD	400	6.80	424	425	104	104	1	80.0-120			0.000	20

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603422**

30-Mar-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **MB-24146**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **24146**	RunNo: **32819**							
Prep Date: **3/9/2016**	Analysis Date: **3/14/2016**	SeqNo: **1005698**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **MB--24146**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **24146**	RunNo: **32819**							
Prep Date: **3/9/2016**	Analysis Date: **3/14/2016**	SeqNo: **1005699**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **LCS-24146**	SampType: **LCS**	TestCode: **SM5210B: BOD**							
Client ID: **LCSW**	Batch ID: **24146**	RunNo: **32819**							
Prep Date: **3/9/2016**	Analysis Date: **3/14/2016**	SeqNo: **1005700**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	150	2.0	198.0	0	76.6	61	138			

Sample ID **LCSD-24146**	SampType: **LCSD**	TestCode: **SM5210B: BOD**							
Client ID: **LCSS02**	Batch ID: **24146**	RunNo: **32819**							
Prep Date: **3/9/2016**	Analysis Date: **3/14/2016**	SeqNo: **1005701**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	160	2.0	198.0	0	82.7	61	138	7.61	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603422**

30-Mar-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID	**MB-24138**	SampType:	**MBLK**	TestCode:	**SM 9223B Fecal Indicator: E. coli MPN**
Client ID:	**PBW**	Batch ID:	**24138**	RunNo:	**32733**
Prep Date:	**3/8/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1001973** Units: **CFU/100ml**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Coliform	<1	1.000								
E. Coli	<1	1.000								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1603422 RcptNo: 1

Received by/date: AG 03/08/16

Logged By: Ashley Gallegos 3/8/2016 9:23:00 PM

Completed By: Ashley Gallegos 3/8/2016 4:59:43 PM

Reviewed By: 03/08/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 6 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? NO
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #:
email or Fax#:
QA/QC Package:
☐ Standard ☒ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: POND SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1603422
3/8/16	1015	WATER	POND 12B	1 LITER PLASTIC-1	NEAT	-001
				500 ML PLASTIC-1	H_2SO_4	
				100 ML PLASTIC-1	NEAT	
	1025		POND 12A	1 LITER PLASTIC-1	NEAT	-002
				500 ML PLASTIC-1	H_2SO_4	
				100 ML PLASTIC-1	NEAT	
	1031		POND 11	1 LITER PLASTIC-1	NEAT	-003
				500 ML PLASTIC-1	H_2SO_4	
				100 ML PLASTIC-1	NEAT	
	1037		POND 7	1 LITER PLASTIC-1	NEAT	-004
				500 ML PLASTIC-1	H_2SO_4	
				100 ML PLASTIC-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	BOD	COD	E-COLI		Air Bubbles (Y or N)
											✓				
												✓			
													✓		
											✓				
												✓			
													✓		
											✓				
												✓			
													✓		
											✓				
												✓			
													✓		

Date	Time	Relinquished by:	Received by:	Date	Time
3/8/16	1210			3/8/16	1229
3/8/16	1523			03/08/16	1503

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package:
☐ Standard ☒ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: POND SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1603422
3/8/16	1045	WATER	POND 5	1 LITER PLASTIC-1	NEAT	-005
				500 ML PLASTIC-1	H_2SO_4	
				100 ML PLASTIC-1	NEAT	
	1051		POND 4	1 LITER PLASTIC-1	NEAT	-006
				500 ML PLASTIC-1	H_2SO_4	
				100 ML PLASTIC-1	NEAT	
	1058		POND 3	1 LITER PLASTIC-1	NEAT	-007
				500 ML PLASTIC-1	H_2SO_4	
				100 ML PLASTIC-1	NEAT	
	1104		POND 2	1 LITER PLASTIC-1	NEAT	-008
				500 ML PLASTIC-1	H_2SO_4	
				100 ML PLASTIC-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	BOD	COD	E-COLI		Air Bubbles (Y or N)
											✓				
												✓			
													✓		
											✓				
												✓			
													✓		
											✓				
												✓			
													✓		
											✓				
												✓			
													✓		

Date	Time	Relinquished by:	Received by:	Date	Time
3/8/16	1210			3/8/16	1229
3/8/16	1523		A M Gallegos	03/08/16	1523

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

April 04, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: Pond Sampling OrderNo.: 1603141

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 3/2/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Case Narrative

WO#: **1603141**
Date: **4/4/2016**

CLIENT: Western Refining Southwest, Gallup
Project: Pond Sampling

Analytical Notes Regarding BOD:
The Pond 9 BOD result is reported with a < value due to all 5 bottles having a depletion of <2.0 mg/L of DO.

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 9
Project: Pond Sampling
Collection Date: 3/2/2016 11:00:00 AM
Lab ID: 1603141-001
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	21	2.3	10	*	mg/L	100	3/4/2016 5:56:03 AM	R32563
Chloride	98000	270	5000		mg/L	1E+0	3/15/2016 8:58:16 PM	R32822
Bromide	190	6.5	20		mg/L	200	3/14/2016 6:23:17 PM	R32788
Phosphorus, Orthophosphate (As P)	ND	22	50		mg/L	100	3/4/2016 5:56:03 AM	R32563
Sulfate	10000	64	500		mg/L	1000	3/14/2016 6:35:42 PM	R32788
Nitrate+Nitrite as N	ND	42	100		mg/L	500	3/17/2016 8:38:37 AM	A32854
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **MED**	
Barium	0.22	0.0066	0.010		mg/L	5	3/16/2016 3:09:25 PM	D32831
Cadmium	ND	0.0037	0.010		mg/L	5	3/16/2016 3:09:25 PM	D32831
Calcium	1300	13	50		mg/L	50	3/16/2016 3:13:01 PM	D32831
Chromium	ND	0.0088	0.030		mg/L	5	3/16/2016 3:09:25 PM	D32831
Copper	ND	0.020	0.030		mg/L	5	3/23/2016 12:35:39 PM	A33001
Iron	0.048	0.045	0.10	J	mg/L	5	3/16/2016 3:09:25 PM	D32831
Magnesium	1400	0.65	50		mg/L	50	3/16/2016 3:13:01 PM	D32831
Manganese	0.068	0.0016	0.010	*	mg/L	5	3/16/2016 3:09:25 PM	D32831
Potassium	1700	8.9	50		mg/L	50	3/16/2016 3:13:01 PM	D32831
Silver	ND	0.014	0.025		mg/L	5	3/16/2016 3:09:25 PM	D32831
Sodium	44000	48	500		mg/L	500	3/16/2016 3:15:04 PM	D32831
Zinc	0.030	0.014	0.050	J	mg/L	5	3/16/2016 3:09:25 PM	D32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.24	0.0053	0.010		mg/L	5	3/15/2016 11:45:04 AM	24075
Cadmium	ND	0.0031	0.010		mg/L	5	3/15/2016 11:45:04 AM	24075
Chromium	0.012	0.011	0.030	J	mg/L	5	3/15/2016 11:45:04 AM	24075
Copper	ND	0.026	0.030		mg/L	5	3/15/2016 11:45:04 AM	24075
Iron	0.26	0.036	0.10		mg/L	5	3/15/2016 11:45:04 AM	24075
Manganese	0.27	0.0076	0.010	*	mg/L	5	3/15/2016 11:45:04 AM	24075
Silver	ND	0.011	0.025		mg/L	5	3/15/2016 11:45:04 AM	24075
Zinc	0.023	0.019	0.050	J	mg/L	5	3/15/2016 11:45:04 AM	24075
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.12	0.0032	0.050	*	mg/L	50	3/28/2016 6:37:52 PM	B33120
Lead	ND	0.0026	0.050		mg/L	100	3/28/2016 6:40:56 PM	B33120
Selenium	0.094	0.019	0.10	J*	mg/L	100	3/28/2016 6:40:56 PM	B33120
Uranium	0.0063	0.00048	0.050	J	mg/L	100	3/28/2016 6:40:56 PM	B33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.11	0.015	0.050	*	mg/L	50	3/14/2016 6:45:07 PM	24075
Lead	ND	0.0024	0.025		mg/L	50	3/14/2016 6:45:07 PM	24075
Selenium	0.079	0.012	0.10	J*	mg/L	100	3/14/2016 6:48:08 PM	24075

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Value above quantitation range
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
R	RPD outside accepted recovery limits
RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix
W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 9
Project: Pond Sampling
Collection Date: 3/2/2016 11:00:00 AM
Lab ID: 1603141-001
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.0061	0.00025	0.025	J	mg/L	50	3/14/2016 6:45:07 PM	24075
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/4/2016 7:51:15 AM	24081
SM5210B: BOD							Analyst: **MRA**	
Biochemical Oxygen Demand	<2.99	2.0	2.0		mg/L	1	3/8/2016 12:16:00 PM	24066
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: **MRA**	
E. Coli	<1	1.000	1.000		CFU/100	1	3/3/2016 5:10:00 PM	24052
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Aniline	ND	9.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Anthracene	ND	6.6	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/13/2016 5:51:19 PM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/13/2016 5:51:19 PM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Carbazole	ND	7.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/13/2016 5:51:19 PM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/13/2016 5:51:19 PM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Chrysene	ND	6.6	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/13/2016 5:51:19 PM	24121

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 9
Project: Pond Sampling
Collection Date: 3/2/2016 11:00:00 AM
Lab ID: 1603141-001
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/13/2016 5:51:19 PM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/13/2016 5:51:19 PM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/13/2016 5:51:19 PM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/13/2016 5:51:19 PM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/13/2016 5:51:19 PM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/13/2016 5:51:19 PM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/13/2016 5:51:19 PM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/13/2016 5:51:19 PM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Fluorene	ND	7.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Isophorone	ND	8.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/13/2016 5:51:19 PM	24121
2-Methylphenol	ND	8.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/13/2016 5:51:19 PM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/13/2016 5:51:19 PM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/13/2016 5:51:19 PM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/13/2016 5:51:19 PM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Phenol	ND	5.1	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Pyrene	ND	5.5	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Pyridine	ND	6.7	10		µg/L	1	3/13/2016 5:51:19 PM	24121

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 9
Project: Pond Sampling
Collection Date: 3/2/2016 11:00:00 AM
Lab ID: 1603141-001
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/13/2016 5:51:19 PM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/13/2016 5:51:19 PM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/13/2016 5:51:19 PM	24121
Surr: 2-Fluorophenol	66.3	0	4.63-113		%Rec	1	3/13/2016 5:51:19 PM	24121
Surr: Phenol-d5	80.7	0	4.13-124		%Rec	1	3/13/2016 5:51:19 PM	24121
Surr: 2,4,6-Tribromophenol	76.7	0	5.14-132		%Rec	1	3/13/2016 5:51:19 PM	24121
Surr: Nitrobenzene-d5	99.8	0	9.13-140		%Rec	1	3/13/2016 5:51:19 PM	24121
Surr: 2-Fluorobiphenyl	88.8	0	10.8-132		%Rec	1	3/13/2016 5:51:19 PM	24121
Surr: 4-Terphenyl-d14	42.0	0	12.9-107		%Rec	1	3/13/2016 5:51:19 PM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	ND	0.096	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Toluene	ND	0.089	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,2,4-Trimethylbenzene	0.55	0.10	1.0	J	µg/L	1	3/7/2016 4:53:23 PM	R32614
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Naphthalene	ND	0.083	2.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
2-Methylnaphthalene	0.29	0.16	4.0	J	µg/L	1	3/7/2016 4:53:23 PM	R32614
Acetone	16	0.88	10		µg/L	1	3/7/2016 4:53:23 PM	R32614
Bromobenzene	ND	0.080	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Bromoform	ND	0.10	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Bromomethane	ND	0.78	3.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
2-Butanone	1.5	0.32	10	J	µg/L	1	3/7/2016 4:53:23 PM	R32614
Carbon disulfide	ND	0.60	10		µg/L	1	3/7/2016 4:53:23 PM	R32614
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Chloroethane	ND	0.15	2.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Chloroform	ND	0.089	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Chloromethane	ND	0.21	3.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 9
Project: Pond Sampling
Collection Date: 3/2/2016 11:00:00 AM
Lab ID: 1603141-001
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Dibromomethane	ND	0.12	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
2-Hexanone	ND	0.36	10		µg/L	1	3/7/2016 4:53:23 PM	R32614
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/7/2016 4:53:23 PM	R32614
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Styrene	ND	0.095	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/7/2016 4:53:23 PM	R32614
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/7/2016 4:53:23 PM	R32614
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	3/7/2016 4:53:23 PM	R32614
Surr: 4-Bromofluorobenzene	99.9	0	70-130		%Rec	1	3/7/2016 4:53:23 PM	R32614
Surr: Dibromofluoromethane	115	0	70-130		%Rec	1	3/7/2016 4:53:23 PM	R32614

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 9
Project: Pond Sampling
Collection Date: 3/2/2016 11:00:00 AM
Lab ID: 1603141-001
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: Toluene-d8	107	0	70-130		%Rec	1	3/7/2016 4:53:23 PM	R32614
SM2510B: SPECIFIC CONDUCTANCE							Analyst: **JRR**	
Conductivity	240000	0.50	0.50		µmhos/c	50	3/8/2016 7:12:43 PM	R32665
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.57	0.100	1.68	H	pH units	1	3/7/2016 7:10:31 PM	R32629

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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 6
Project: Pond Sampling
Collection Date: 3/2/2016 12:00:00 PM
Lab ID: 1603141-002
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	22	0.23	1.0	*	mg/L	10	3/4/2016 6:08:27 AM	R32563
Chloride	8700	27	500		mg/L	1000	3/15/2016 9:10:41 PM	R32822
Nitrogen, Nitrite (As N)	ND	4.2	10		mg/L	100	3/4/2016 6:20:51 AM	R32563
Bromide	20	0.32	1.0		mg/L	10	3/4/2016 6:08:27 AM	R32563
Nitrogen, Nitrate (As N)	ND	0.42	1.0		mg/L	10	3/4/2016 6:08:27 AM	R32563
Phosphorus, Orthophosphate (As P)	ND	2.2	5.0		mg/L	10	3/4/2016 6:08:27 AM	R32563
Sulfate	2000	6.4	50		mg/L	100	3/4/2016 6:20:51 AM	R32563
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.16	0.0013	0.0020		mg/L	1	3/11/2016 5:19:31 PM	C32754
Cadmium	ND	0.00075	0.0020		mg/L	1	3/11/2016 5:19:31 PM	C32754
Calcium	390	1.3	5.0		mg/L	5	3/16/2016 3:18:45 PM	D32831
Chromium	0.0099	0.0018	0.0060		mg/L	1	3/11/2016 5:19:31 PM	C32754
Copper	ND	0.0040	0.0060		mg/L	1	3/18/2016 12:59:51 PM	B32891
Iron	0.57	0.0091	0.020	*	mg/L	1	3/16/2016 3:16:55 PM	D32831
Magnesium	180	0.065	5.0		mg/L	5	3/16/2016 3:18:45 PM	D32831
Manganese	0.46	0.00032	0.0020	*	mg/L	1	3/11/2016 5:19:31 PM	C32754
Potassium	190	0.89	5.0		mg/L	5	3/16/2016 3:18:45 PM	D32831
Silver	ND	0.0028	0.0050		mg/L	1	3/11/2016 5:19:31 PM	C32754
Sodium	5200	9.6	100		mg/L	100	3/18/2016 1:01:42 PM	B32891
Zinc	0.015	0.0028	0.010		mg/L	1	3/16/2016 3:16:55 PM	D32831
EPA METHOD 200.7: TOTAL METALS							Analyst: **MED**	
Barium	0.18	0.0011	0.0020		mg/L	1	3/15/2016 11:46:52 AM	24075
Cadmium	ND	0.00062	0.0020		mg/L	1	3/15/2016 11:46:52 AM	24075
Chromium	0.011	0.0022	0.0060		mg/L	1	3/15/2016 11:46:52 AM	24075
Copper	ND	0.0051	0.0060		mg/L	1	3/15/2016 11:46:52 AM	24075
Iron	1.1	0.036	0.10	*	mg/L	5	3/15/2016 11:48:46 AM	24075
Manganese	0.47	0.0015	0.0020	*	mg/L	1	3/15/2016 11:46:52 AM	24075
Silver	ND	0.0021	0.0050		mg/L	1	3/15/2016 11:46:52 AM	24075
Zinc	0.014	0.0039	0.010		mg/L	1	3/15/2016 11:46:52 AM	24075
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.020	0.00065	0.010	*	mg/L	10	3/25/2016 5:21:54 PM	B33098
Lead	0.00059	0.00026	0.0050	J	mg/L	10	3/28/2016 6:43:59 PM	B33120
Selenium	0.019	0.0097	0.050	J	mg/L	50	3/28/2016 6:47:02 PM	B33120
Uranium	0.0037	0.000048	0.0050	J	mg/L	10	3/28/2016 6:43:59 PM	B33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.021	0.0029	0.010	*	mg/L	10	3/14/2016 6:20:58 PM	24075
Lead	0.0012	0.00047	0.0050	J	mg/L	10	3/14/2016 6:20:58 PM	24075

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 6
Project: Pond Sampling
Collection Date: 3/2/2016 12:00:00 PM
Lab ID: 1603141-002
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Selenium	0.017	0.0025	0.020	J	mg/L	20	3/14/2016 6:23:58 PM	24075
Uranium	0.0039	0.000049	0.0050	J	mg/L	10	3/14/2016 6:20:58 PM	24075
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/4/2016 7:53:20 AM	24081
SM5210B: BOD							Analyst: **MRA**	
Biochemical Oxygen Demand	77	2.0	2.0		mg/L	1	3/8/2016 12:16:00 PM	24066
SM 9223B FECAL INDICATOR: E. COLI MPN							Analyst: **MRA**	
E. Coli	10	10.00	10.00		CFU/100	1	3/3/2016 5:10:00 PM	24052
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Aniline	ND	9.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Anthracene	ND	6.6	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/13/2016 7:20:40 PM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/13/2016 7:20:40 PM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Carbazole	ND	7.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/13/2016 7:20:40 PM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/13/2016 7:20:40 PM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Chrysene	ND	6.6	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 6
Project: Pond Sampling
Collection Date: 3/2/2016 12:00:00 PM
Lab ID: 1603141-002
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dibenzofuran	ND	8.6	10		µg/L	1	3/13/2016 7:20:40 PM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/13/2016 7:20:40 PM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/13/2016 7:20:40 PM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/13/2016 7:20:40 PM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/13/2016 7:20:40 PM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/13/2016 7:20:40 PM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/13/2016 7:20:40 PM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/13/2016 7:20:40 PM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/13/2016 7:20:40 PM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Fluorene	ND	7.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Isophorone	ND	8.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/13/2016 7:20:40 PM	24121
2-Methylphenol	ND	8.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
3+4-Methylphenol	25	7.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/13/2016 7:20:40 PM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/13/2016 7:20:40 PM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/13/2016 7:20:40 PM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/13/2016 7:20:40 PM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Phenol	14	5.1	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Pyrene	ND	5.5	10		µg/L	1	3/13/2016 7:20:40 PM	24121

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 6
Project: Pond Sampling
Collection Date: 3/2/2016 12:00:00 PM
Lab ID: 1603141-002
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Pyridine	ND	6.7	10		µg/L	1	3/13/2016 7:20:40 PM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/13/2016 7:20:40 PM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/13/2016 7:20:40 PM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/13/2016 7:20:40 PM	24121
Surr: 2-Fluorophenol	45.5	0	4.63-113		%Rec	1	3/13/2016 7:20:40 PM	24121
Surr: Phenol-d5	44.6	0	4.13-124		%Rec	1	3/13/2016 7:20:40 PM	24121
Surr: 2,4,6-Tribromophenol	72.8	0	5.14-132		%Rec	1	3/13/2016 7:20:40 PM	24121
Surr: Nitrobenzene-d5	63.3	0	9.13-140		%Rec	1	3/13/2016 7:20:40 PM	24121
Surr: 2-Fluorobiphenyl	56.0	0	10.8-132		%Rec	1	3/13/2016 7:20:40 PM	24121
Surr: 4-Terphenyl-d14	45.7	0	12.9-107		%Rec	1	3/13/2016 7:20:40 PM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	ND	0.48	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Toluene	ND	0.45	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Ethylbenzene	ND	0.56	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Naphthalene	ND	0.42	10		µg/L	5	3/7/2016 5:22:20 PM	R32614
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/7/2016 5:22:20 PM	R32614
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/7/2016 5:22:20 PM	R32614
Acetone	15	4.4	50	J	µg/L	5	3/7/2016 5:22:20 PM	R32614
Bromobenzene	ND	0.40	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Bromoform	ND	0.51	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Bromomethane	ND	3.9	15		µg/L	5	3/7/2016 5:22:20 PM	R32614
2-Butanone	ND	1.6	50		µg/L	5	3/7/2016 5:22:20 PM	R32614
Carbon disulfide	3.5	3.0	50	J	µg/L	5	3/7/2016 5:22:20 PM	R32614
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Chloroethane	ND	0.73	10		µg/L	5	3/7/2016 5:22:20 PM	R32614
Chloroform	ND	0.44	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Chloromethane	ND	1.1	15		µg/L	5	3/7/2016 5:22:20 PM	R32614
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/7/2016 5:22:20 PM	R32614

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 6
Project: Pond Sampling
Collection Date: 3/2/2016 12:00:00 PM
Lab ID: 1603141-002
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Dibromomethane	ND	0.60	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
2-Hexanone	ND	1.8	50		µg/L	5	3/7/2016 5:22:20 PM	R32614
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/7/2016 5:22:20 PM	R32614
Methylene Chloride	1.1	0.31	15	J	µg/L	5	3/7/2016 5:22:20 PM	R32614
n-Butylbenzene	ND	0.80	15		µg/L	5	3/7/2016 5:22:20 PM	R32614
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Styrene	ND	0.48	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/7/2016 5:22:20 PM	R32614
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/7/2016 5:22:20 PM	R32614
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/7/2016 5:22:20 PM	R32614
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/7/2016 5:22:20 PM	R32614
Surr: 1,2-Dichloroethane-d4	97.3	0	70-130		%Rec	5	3/7/2016 5:22:20 PM	R32614
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	5	3/7/2016 5:22:20 PM	R32614

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 6
Project: Pond Sampling
Collection Date: 3/2/2016 12:00:00 PM
Lab ID: 1603141-002
Matrix: AQUEOUS
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Surr: Dibromofluoromethane	101	0	70-130		%Rec	5	3/7/2016 5:22:20 PM	R32614
Surr: Toluene-d8	102	0	70-130		%Rec	5	3/7/2016 5:22:20 PM	R32614
SM2510B: SPECIFIC CONDUCTANCE							Analyst: **JRR**	
Conductivity	32000	0.10	0.10		µmhos/c	10	3/8/2016 7:17:12 PM	R32665
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.79	0.100	1.68	H	pH units	1	3/7/2016 7:15:02 PM	R32629

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Pond Sampling
Collection Date:
Lab ID: 1603141-003
Matrix: TRIP BLANK
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
Benzene	ND	0.096	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Toluene	ND	0.089	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Naphthalene	ND	0.083	2.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Acetone	ND	0.88	10		µg/L	1	3/7/2016 7:46:32 PM	R32614
Bromobenzene	ND	0.080	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Bromoform	ND	0.10	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Bromomethane	ND	0.78	3.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
2-Butanone	ND	0.32	10		µg/L	1	3/7/2016 7:46:32 PM	R32614
Carbon disulfide	ND	0.60	10		µg/L	1	3/7/2016 7:46:32 PM	R32614
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Chloroethane	ND	0.15	2.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Chloroform	ND	0.089	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Chloromethane	ND	0.21	3.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Dibromomethane	ND	0.12	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/7/2016 7:46:32 PM	R32614

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: Pond Sampling
Collection Date:
Lab ID: 1603141-003
Matrix: TRIP BLANK
Received Date: 3/2/2016 4:16:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **RAA**	
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
2-Hexanone	ND	0.36	10		µg/L	1	3/7/2016 7:46:32 PM	R32614
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/7/2016 7:46:32 PM	R32614
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Styrene	ND	0.095	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/7/2016 7:46:32 PM	R32614
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/7/2016 7:46:32 PM	R32614
Surr: 1,2-Dichloroethane-d4	93.4	0	70-130		%Rec	1	3/7/2016 7:46:32 PM	R32614
Surr: 4-Bromofluorobenzene	98.2	0	70-130		%Rec	1	3/7/2016 7:46:32 PM	R32614
Surr: Dibromofluoromethane	109	0	70-130		%Rec	1	3/7/2016 7:46:32 PM	R32614
Surr: Toluene-d8	104	0	70-130		%Rec	1	3/7/2016 7:46:32 PM	R32614

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
COD	2720		1000	100	03/08/2016 12:04	WG854458

Wet Chemistry by Method 410.4

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
	mg/l		mg/l			
COD	574		100	10	03/08/2016 12:04	WG854458

Method Blank (MB)

(MB) 03/08/16 12:02

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
COD	ND		10.0

L821638-02 Original Sample (OS) • Duplicate (DUP)

(OS) 03/08/16 12:04 • (DUP) 03/08/16 12:04

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
COD	26.6	26.5	1	0.000		20

L821653-01 Original Sample (OS) • Duplicate (DUP)

(OS) 03/08/16 12:04 • (DUP) 03/08/16 12:05

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
COD	226	226	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 03/08/16 12:02 • (LCSD) 03/08/16 12:03

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
COD	242	240	239	99.0	99.0	90.0-110			1.00	20

L821811-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 03/08/16 12:05 • (MS) 03/08/16 12:05 • (MSD) 03/08/16 12:05

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
COD	400	35.2	443	446	102	103	1	80.0-120			1.00	20

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **MB-C**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C32754**	RunNo: **32754**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1002498** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C32754**	RunNo: **32754**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1002499** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.2	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	99.2	85	115			
Manganese	0.49	0.0020	0.5000	0	97.7	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C32754**	RunNo: **32754**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1002500** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0018	0.0020	0.002000	0	90.0	50	150			J
Cadmium	0.0022	0.0020	0.002000	0	108	50	150			
Chromium	0.0058	0.0060	0.006000	0	97.3	50	150			J
Manganese	0.0018	0.0020	0.002000	0	92.5	50	150			J
Silver	0.0048	0.0050	0.005000	0	96.8	50	150			J

Sample ID **MB-D**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **D32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006183** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **MB-D**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **D32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006183** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-D**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **D32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006187** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.0	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.49	0.0060	0.5000	0	98.6	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Magnesium	51	1.0	50.00	0	101	85	115			
Manganese	0.49	0.0020	0.5000	0	97.7	85	115			
Potassium	49	1.0	50.00	0	97.8	85	115			
Silver	0.098	0.0050	0.1000	0	97.6	85	115			
Sodium	50	1.0	50.00	0	100	85	115			
Zinc	0.50	0.010	0.5000	0	99.5	85	115			

Sample ID **LLLCS-D**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **D32831**	RunNo: **32831**
Prep Date:	Analysis Date: **3/16/2016**	SeqNo: **1006188** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0024	0.0020	0.002000	0	119	50	150			
Cadmium	0.0016	0.0020	0.002000	0	78.5	50	150			J
Calcium	0.54	1.0	0.5000	0	108	50	150			J
Chromium	0.0052	0.0060	0.006000	0	87.2	50	150			J
Iron	0.021	0.020	0.02000	0	106	50	150			
Magnesium	0.53	1.0	0.5000	0	106	50	150			J
Manganese	0.0022	0.0020	0.002000	0	109	50	150			
Potassium	0.59	1.0	0.5000	0	119	50	150			J
Silver	0.0053	0.0050	0.005000	0	106	50	150			
Sodium	0.46	1.0	0.5000	0	91.5	50	150			J
Zinc	0.0056	0.010	0.005000	0	112	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **MB-B**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008295** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								
Sodium	ND	1.0								

Sample ID **LCS-B**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008299** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.49	0.0060	0.5000	0	98.1	85	115			
Sodium	50	1.0	50.00	0	99.0	85	115			

Sample ID **LLLCS-B**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008300** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0065	0.0060	0.006000	0	109	50	150			
Sodium	0.54	1.0	0.5000	0	108	50	150			J

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A33001**	RunNo: **33001**
Prep Date:	Analysis Date: **3/23/2016**	SeqNo: **1012281** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A33001**	RunNo: **33001**
Prep Date:	Analysis Date: **3/23/2016**	SeqNo: **1012282** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.50	0.0060	0.5000	0	99.4	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A33001**	RunNo: **33001**
Prep Date:	Analysis Date: **3/23/2016**	SeqNo: **1012283** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0061	0.0060	0.006000	0	102	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **MB-24075**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **24075**	RunNo: **32607**
Prep Date: **3/3/2016**	Analysis Date: **3/7/2016**	SeqNo: **997674** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-24075**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **24075**	RunNo: **32607**
Prep Date: **3/3/2016**	Analysis Date: **3/7/2016**	SeqNo: **997675** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	99.0	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.49	0.0060	0.5000	0	98.0	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Manganese	0.48	0.0020	0.5000	0	96.6	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.50	0.010	0.5000	0	101	85	115			

Sample ID **LLLCS-24075**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **24075**	RunNo: **32607**
Prep Date: **3/3/2016**	Analysis Date: **3/7/2016**	SeqNo: **997676** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0017	0.0020	0.002000	0	84.0	50	150			J
Cadmium	0.0019	0.0020	0.002000	0	96.5	50	150			J
Chromium	0.0065	0.0060	0.006000	0	108	50	150			
Copper	0.0059	0.0060	0.006000	0	98.0	50	150			J
Iron	0.020	0.020	0.02000	0	101	50	150			
Manganese	0.0022	0.0020	0.002000	0	111	50	150			
Silver	0.0051	0.0050	0.005000	0	102	50	150			
Zinc	0.0057	0.010	0.005000	0	115	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33098**	RunNo: **33098**
Prep Date:	Analysis Date: **3/25/2016**	SeqNo: **1015701** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	93.2	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33098**	RunNo: **33098**
Prep Date:	Analysis Date: **3/25/2016**	SeqNo: **1015702** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	101	50	150			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33098**	RunNo: **33098**
Prep Date:	Analysis Date: **3/25/2016**	SeqNo: **1015703** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33120**	RunNo: **33120**
Prep Date:	Analysis Date: **3/28/2016**	SeqNo: **1016767** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.2	85	115			
Lead	0.012	0.00050	0.01250	0	98.4	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			
Uranium	0.012	0.00050	0.01250	0	95.6	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33120**	RunNo: **33120**
Prep Date:	Analysis Date: **3/28/2016**	SeqNo: **1016769** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	104	50	150			
Lead	0.00052	0.00050	0.0005000	0	104	50	150			
Selenium	0.0011	0.0010	0.001000	0	108	50	150			
Uranium	0.00049	0.00050	0.0005000	0	98.4	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**
04-Apr-16

Client: Western Refining Southwest, Gallup
Project: Pond Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33120**	RunNo: **33120**
Prep Date:	Analysis Date: **3/28/2016**	SeqNo: **1016771** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	0.000011	0.00050								J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID	**MB-24075**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**24075**	RunNo:	**32687**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000380**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-24075**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**24075**	RunNo:	**32687**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000383**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.1	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.025	0.0010	0.02500	0	98.0	85	115			
Uranium	0.012	0.00050	0.01250	0	98.8	85	115			

Sample ID	**MSLLLCS-24075**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**24075**	RunNo:	**32687**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/9/2016**	SeqNo:	**1000386**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00087	0.0010	0.001000	0	86.9	50	150			J
Lead	0.00046	0.00050	0.0005000	0	91.5	50	150			J
Selenium	0.00081	0.0010	0.001000	0	81.0	50	150			J
Uranium	0.00044	0.00050	0.0005000	0	87.4	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID	**MB-24081**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**24081**	RunNo:	**32562**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/4/2016**	SeqNo:	**996234**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-24081**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**24081**	RunNo:	**32562**					
Prep Date:	**3/3/2016**	Analysis Date:	**3/4/2016**	SeqNo:	**996235**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	107	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32563**	RunNo: **32563**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **996382** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	0.092	0.50								J

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32563**	RunNo: **32563**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **996383** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	105	90	110			
Nitrogen, Nitrite (As N)	0.97	0.10	1.000	0	97.0	90	110			
Bromide	2.5	0.10	2.500	0	101	90	110			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	102	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.2	90	110			
Sulfate	9.9	0.50	10.00	0	98.7	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32788**	RunNo: **32788**
Prep Date:	Analysis Date: **3/14/2016**	SeqNo: **1004671** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	ND	0.10								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32788**	RunNo: **32788**
Prep Date:	Analysis Date: **3/14/2016**	SeqNo: **1004672** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.3	0.10	2.500	0	90.5	90	110			
Sulfate	9.3	0.50	10.00	0	93.2	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32822**	RunNo: **32822**
Prep Date:	Analysis Date: **3/15/2016**	SeqNo: **1005748** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R32822**	RunNo: **32822**							
Prep Date:	Analysis Date: **3/15/2016**	SeqNo: **1005748**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R32822**	RunNo: **32822**							
Prep Date:	Analysis Date: **3/15/2016**	SeqNo: **1005749**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.7	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **A32854**	RunNo: **32854**							
Prep Date:	Analysis Date: **3/17/2016**	SeqNo: **1007070**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **A32854**	RunNo: **32854**							
Prep Date:	Analysis Date: **3/17/2016**	SeqNo: **1007071**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	100	90	110			

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32614**	RunNo: **32614**
Prep Date:	Analysis Date: **3/7/2016**	SeqNo: **997827** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	0.15	1.0								J
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	0.32	4.0								J
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	0.16	1.0								J
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32614**	RunNo: **32614**
Prep Date:	Analysis Date: **3/7/2016**	SeqNo: **997827** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11		10.00		106	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.9	70	130			
Surr: Dibromofluoromethane	11		10.00		115	70	130			
Surr: Toluene-d8	9.5		10.00		94.7	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32614**	RunNo: **32614**
Prep Date:	Analysis Date: **3/7/2016**	SeqNo: **997830** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	70	130			
Toluene	20	1.0	20.00	0	99.2	70	130			
Chlorobenzene	21	1.0	20.00	0	104	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32614**	RunNo: **32614**
Prep Date:	Analysis Date: **3/7/2016**	SeqNo: **997830** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	22	1.0	20.00	0	110	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	93.8	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.8	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	9.7		10.00		97.2	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **1603141-001cms**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **Pond 9**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003939** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	71	10	100.0	0	71.2	46.4	121			
4-Chloro-3-methylphenol	140	10	200.0	0	70.3	45.3	135			
2-Chlorophenol	150	10	200.0	0	72.7	23.9	133			
1,4-Dichlorobenzene	72	10	100.0	0	71.9	42.6	104			
2,4-Dinitrotoluene	55	10	100.0	0	54.7	28.9	126			
N-Nitrosodi-n-propylamine	71	10	100.0	0	70.6	49.2	117			
4-Nitrophenol	24	10	200.0	0	12.2	18.1	97.2			S
Pentachlorophenol	48	20	200.0	0	24.1	24.8	127			S
Phenol	130	10	200.0	0	63.7	17.9	93.6			
Pyrene	56	10	100.0	0	56.2	29.6	142			
1,2,4-Trichlorobenzene	75	10	100.0	0	75.1	39.5	109			
Surr: 2-Fluorophenol	95		200.0		47.6	4.63	113			
Surr: Phenol-d5	120		200.0		60.8	4.13	124			
Surr: 2,4,6-Tribromophenol	100		200.0		52.4	5.14	132			
Surr: Nitrobenzene-d5	68		100.0		67.9	9.13	140			
Surr: 2-Fluorobiphenyl	65		100.0		64.8	10.8	132			
Surr: 4-Terphenyl-d14	79		100.0		78.9	12.9	107			

Sample ID **1603141-001cmsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **Pond 9**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003940** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	77	10	100.0	0	77.3	25.5	126	8.24	31.3	
4-Chloro-3-methylphenol	170	10	200.0	0	83.5	26.6	138	17.2	29	
2-Chlorophenol	160	10	200.0	0	79.5	23.9	133	8.92	28.4	
1,4-Dichlorobenzene	74	10	100.0	0	74.0	20.3	122	2.91	28.2	
2,4-Dinitrotoluene	64	10	100.0	0	63.8	40	94.5	15.3	22.9	
N-Nitrosodi-n-propylamine	82	10	100.0	0	81.8	25.9	131	14.8	28.8	
4-Nitrophenol	28	10	200.0	0	14.1	17.2	88.9	15.1	41.5	S
Pentachlorophenol	49	20	200.0	0	24.4	13.6	123	1.28	45.1	
Phenol	130	10	200.0	0	66.4	20.7	100	4.26	33.9	
Pyrene	59	10	100.0	0	58.8	21.8	129	4.55	33.6	
1,2,4-Trichlorobenzene	82	10	100.0	0	82.3	22	130	9.15	28.2	
Surr: 2-Fluorophenol	97		200.0		48.4	4.63	113	0	0	
Surr: Phenol-d5	130		200.0		64.0	4.13	124	0	0	
Surr: 2,4,6-Tribromophenol	110		200.0		53.2	5.14	132	0	0	
Surr: Nitrobenzene-d5	77		100.0		77.4	9.13	140	0	0	
Surr: 2-Fluorobiphenyl	72		100.0		71.9	10.8	132	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **1603141-001cmsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **Pond 9**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003940** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	38		100.0		38.2	12.9	107	0	0	

Sample ID **mb-24121**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003941** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**
04-Apr-16

Client: Western Refining Southwest, Gallup
Project: Pond Sampling

Sample ID **mb-24121**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003941** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **mb-24121**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003941** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	250		200.0		123	4.63	113			S
Surr: Phenol-d5	260		200.0		131	4.13	124			S
Surr: 2,4,6-Tribromophenol	230		200.0		116	5.14	132			
Surr: Nitrobenzene-d5	130		100.0		128	9.13	140			
Surr: 2-Fluorobiphenyl	120		100.0		118	10.8	132			
Surr: 4-Terphenyl-d14	130		100.0		131	12.9	107			S

Sample ID **lcs-24121**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003943** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	100	10	100.0	0	104	40.2	107			
4-Chloro-3-methylphenol	250	10	200.0	0	125	48.2	107			S
2-Chlorophenol	220	10	200.0	0	110	42.5	106			S
1,4-Dichlorobenzene	110	10	100.0	0	109	31.6	111			
2,4-Dinitrotoluene	78	10	100.0	0	78.1	33.6	86.5			
N-Nitrosodi-n-propylamine	110	10	100.0	0	108	44	106			S
4-Nitrophenol	180	10	200.0	0	88.4	25.5	109			
Pentachlorophenol	170	20	200.0	0	84.6	38.8	97.8			
Phenol	210	10	200.0	0	107	22.7	116			
Pyrene	100	10	100.0	0	103	29.3	138			
1,2,4-Trichlorobenzene	110	10	100.0	0	115	35.3	123			
Surr: 2-Fluorophenol	180		200.0		88.4	4.63	113			
Surr: Phenol-d5	200		200.0		101	4.13	124			
Surr: 2,4,6-Tribromophenol	230		200.0		113	5.14	132			
Surr: Nitrobenzene-d5	96		100.0		96.0	9.13	140			
Surr: 2-Fluorobiphenyl	90		100.0		90.5	10.8	132			
Surr: 4-Terphenyl-d14	99		100.0		99.4	12.9	107			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **MB-24066**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **24066**	RunNo: **32756**							
Prep Date: **3/3/2016**	Analysis Date: **3/8/2016**	SeqNo: **1002743**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **MB--24066**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **24066**	RunNo: **32756**							
Prep Date: **3/3/2016**	Analysis Date: **3/8/2016**	SeqNo: **1002744**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **LCS-24066**	SampType: **LCS**	TestCode: **SM5210B: BOD**							
Client ID: **LCSW**	Batch ID: **24066**	RunNo: **32756**							
Prep Date: **3/3/2016**	Analysis Date: **3/8/2016**	SeqNo: **1002745**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	140	2.0	198.0	0	69.8	61	138			

Sample ID **LCSD-24066**	SampType: **LCSD**	TestCode: **SM5210B: BOD**							
Client ID: **LCSS02**	Batch ID: **24066**	RunNo: **32756**							
Prep Date: **3/3/2016**	Analysis Date: **3/8/2016**	SeqNo: **1002746**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	140	2.0	198.0	0	70.8	61	138	1.44	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603141**

04-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID	**MB-24052**	SampType:	**MBLK**	TestCode:	**SM 9223B Fecal Indicator: E. coli MPN**				
Client ID:	**PBW**	Batch ID:	**24052**	RunNo:	**32554**				
Prep Date:	**3/2/2016**	Analysis Date:	**3/3/2016**	SeqNo:	**995924**	Units:	**CFU/100ml**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
E. Coli	<1	1.000								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1603141** RcptNo: **1**

Received by/date: AG 03/02/16

Logged By: **Ashley Gallegos** **3/2/2016 4:16:00 PM** AG

Completed By: **Ashley Gallegos** **3/2/2016 5:13:10 PM** AG

Reviewed By: AG 3/3/16 03/03/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 8 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? NO
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: AO

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: #2 GIANT CROSSING ROAD
GALLUP NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard / [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
EDD (Type) EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: POND SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

HEAL No. 1603141

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals BOD	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	GenChem Conductivity, pH, Spec Cat	WQCC Metals (Total & Dissolved)	COD	E.COLI	Air Bubbles (Y or N)
3/2/16	1100	WATER	POND 9	40 mL VOA-3	HCL	-001										✓						
				1 LITER AMBER-2	NEAT												✓					
				125 mL PLASTIC-1	H_2SO_4													✓				
				125 mL PLASTIC-1	HNO_3													✓	✓			
				500 mL PLASTIC-1	HNO_3														✓			
				500 mL PLASTIC-1	NEAT														✓			
				1 LITER PLASTIC-1	NEAT								✓									
				500 mL PLASTIC-1	H_2SO_4															✓		
↓	↓	↓	↓	100 mL PLASTIC-1	NEAT																✓	

Date:	Time:	Relinquished by:	Received by:	Date	Time
3/2/16	1300			3/3/16	1315
3/3/16	1616			03/02/16	1614

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
Email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard ☒ Level 4 (Full Validation)
Accreditation: ☒ NELAP ☐ Other
EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: POND SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1603141
3/1/16	1200	WATER	POND 6	40 mL VOA-3	HCL	-002
				1 LITER AMBER-1	NEAT	
				125 mL PLASTIC-1	H_2SO_4	
				125 mL PLASTIC-1	HNO_3	
				500 mL PLASTIC-1	HNO_3	
				1 LITER PLASTIC-1	NEAT	
				500 mL PLASTIC-1	NEAT	
				500 mL PLASTIC-1	H_2SO_4	
				100 mL PLASTIC-1	NEAT	
—	—	WATER	TRIP BLANK	40 mL VOA-4	HCL	-003

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	~~RCRA 8 Metals~~ BOD	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	GENCHEM - PH, SPEC CONDUCTANCE, CATIONS/ANIONS	WQCC METALS TOTAL & DISSOLVED	COD	ECOLI	Air Bubbles (Y or N)
									✓						
										✓					
											✓				
											✓	✓			
												✓			
						✓									
												✓			
													✓		
														✓	
									✓						

Date	Time	Relinquished by:	Received by:	Date	Time
3/1/16	1300			3/1/16	1315
3/1/16	1616			03/02/16	1616

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

April 15, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: Pond Sampling OrderNo.: 1603233

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 9 sample(s) on 3/3/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1603233**
Date Reported: **4/15/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 3
Project: Pond Sampling
Collection Date: 3/2/2016 2:45:00 PM
Lab ID: 1603233-001
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	29	0.45	2.0	*	mg/L	20	3/4/2016 12:48:19 PM	R32615
Chloride	4400	14	250		mg/L	500	3/15/2016 12:41:48 PM	R32822
Bromide	18	0.65	2.0		mg/L	20	3/15/2016 12:16:59 PM	R32822
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5		mg/L	5	3/4/2016 12:11:07 PM	R32615
Sulfate	1300	3.2	25		mg/L	50	3/15/2016 12:29:24 PM	R32822
Nitrate+Nitrite as N	ND	1.7	4.0		mg/L	20	3/8/2016 3:17:52 PM	R32663
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.16	0.0013	0.0020		mg/L	1	3/18/2016 5:07:55 PM	C32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 5:07:55 PM	C32891
Calcium	400	1.3	5.0		mg/L	5	3/18/2016 5:09:45 PM	C32891
Chromium	0.0085	0.0018	0.0060		mg/L	1	3/18/2016 5:07:55 PM	C32891
Copper	ND	0.0040	0.0060		mg/L	1	3/18/2016 5:07:55 PM	C32891
Iron	0.59	0.0091	0.020	*	mg/L	1	3/18/2016 5:07:55 PM	C32891
Magnesium	110	0.065	5.0		mg/L	5	3/18/2016 5:09:45 PM	C32891
Manganese	0.36	0.00032	0.0020	*	mg/L	1	3/18/2016 5:07:55 PM	C32891
Potassium	150	0.89	5.0		mg/L	5	3/18/2016 5:09:45 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 5:07:55 PM	C32891
Sodium	2900	4.8	50		mg/L	50	3/23/2016 4:47:30 PM	C33001
Zinc	0.0099	0.0028	0.010	J	mg/L	1	3/18/2016 5:07:55 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.18	0.0011	0.0020		mg/L	1	3/18/2016 3:57:00 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 3:57:00 PM	24150
Chromium	0.0095	0.0022	0.0060		mg/L	1	3/18/2016 3:57:00 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 3:57:00 PM	24150
Iron	1.4	0.036	0.10	*	mg/L	5	3/21/2016 1:16:32 PM	24150
Manganese	0.38	0.0015	0.0020	*	mg/L	1	3/18/2016 3:57:00 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/21/2016 1:00:05 PM	24150
Zinc	0.015	0.0039	0.010		mg/L	1	3/18/2016 3:57:00 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.011	0.00032	0.0050	*	mg/L	5	3/28/2016 7:14:36 PM	B33120
Lead	0.00054	0.00013	0.0025	J	mg/L	5	3/28/2016 7:14:36 PM	B33120
Selenium	0.021	0.0039	0.020		mg/L	20	3/28/2016 7:23:46 PM	B33120
Uranium	0.0037	0.000024	0.0025		mg/L	5	3/28/2016 7:14:36 PM	B33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.013	0.0029	0.010	*	mg/L	10	3/23/2016 4:22:38 PM	24250
Lead	0.00083	0.00047	0.0050	J	mg/L	10	3/23/2016 4:22:38 PM	24250
Selenium	0.019	0.0025	0.020	J	mg/L	20	3/23/2016 4:04:31 PM	24250

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 3
Project: Pond Sampling
Collection Date: 3/2/2016 2:45:00 PM
Lab ID: 1603233-001
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.0042	0.000049	0.0050	J	mg/L	10	3/23/2016 4:22:38 PM	24250
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000079	0.000053	0.00020	J	mg/L	1	3/10/2016 11:11:25 AM	24156
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Aniline	ND	9.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Anthracene	ND	6.6	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Benzoic acid	19	9.8	20	J	µg/L	1	3/13/2016 9:48:47 PM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/13/2016 9:48:47 PM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Carbazole	ND	7.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/13/2016 9:48:47 PM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/13/2016 9:48:47 PM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Chrysene	ND	6.6	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/13/2016 9:48:47 PM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/13/2016 9:48:47 PM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/13/2016 9:48:47 PM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 3
Project: Pond Sampling
Collection Date: 3/2/2016 2:45:00 PM
Lab ID: 1603233-001
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/13/2016 9:48:47 PM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/13/2016 9:48:47 PM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/13/2016 9:48:47 PM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/13/2016 9:48:47 PM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/13/2016 9:48:47 PM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/13/2016 9:48:47 PM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Fluorene	ND	7.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Isophorone	ND	8.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/13/2016 9:48:47 PM	24121
2-Methylphenol	14	8.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
3+4-Methylphenol	95	7.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/13/2016 9:48:47 PM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/13/2016 9:48:47 PM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/13/2016 9:48:47 PM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/13/2016 9:48:47 PM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Phenol	91	5.1	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Pyrene	ND	5.5	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Pyridine	ND	6.7	10		µg/L	1	3/13/2016 9:48:47 PM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/13/2016 9:48:47 PM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/13/2016 9:48:47 PM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/13/2016 9:48:47 PM	24121
Surr: 2-Fluorophenol	64.1	0	4.63-113		%Rec	1	3/13/2016 9:48:47 PM	24121
Surr: Phenol-d5	57.9	0	4.13-124		%Rec	1	3/13/2016 9:48:47 PM	24121

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	93.6	0	5.14-132		%Rec	1	3/13/2016 9:48:47 PM	24121
Surr: Nitrobenzene-d5	92.2	0	9.13-140		%Rec	1	3/13/2016 9:48:47 PM	24121
Surr: 2-Fluorobiphenyl	72.0	0	10.8-132		%Rec	1	3/13/2016 9:48:47 PM	24121
Surr: 4-Terphenyl-d14	61.7	0	12.9-107		%Rec	1	3/13/2016 9:48:47 PM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.48	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Toluene	ND	0.45	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Ethylbenzene	ND	0.56	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Naphthalene	ND	0.42	10		µg/L	5	3/10/2016 7:08:53 PM	R32729
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/10/2016 7:08:53 PM	R32729
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/10/2016 7:08:53 PM	R32729
Acetone	32	4.4	50	J	µg/L	5	3/10/2016 7:08:53 PM	R32729
Bromobenzene	ND	0.40	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Bromoform	ND	0.51	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Bromomethane	16	3.9	15		µg/L	5	3/10/2016 7:08:53 PM	R32729
2-Butanone	3.7	1.6	50	J	µg/L	5	3/10/2016 7:08:53 PM	R32729
Carbon disulfide	120	3.0	50		µg/L	5	3/10/2016 7:08:53 PM	R32729
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Chloroethane	ND	0.73	10		µg/L	5	3/10/2016 7:08:53 PM	R32729
Chloroform	ND	0.44	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Chloromethane	1.4	1.1	15	J	µg/L	5	3/10/2016 7:08:53 PM	R32729
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/10/2016 7:08:53 PM	R32729
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Dibromomethane	ND	0.60	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729

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Lab ID: 1603233-001
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
2-Hexanone	ND	1.8	50		µg/L	5	3/10/2016 7:08:53 PM	R32729
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/10/2016 7:08:53 PM	R32729
Methylene Chloride	ND	0.31	15		µg/L	5	3/10/2016 7:08:53 PM	R32729
n-Butylbenzene	ND	0.80	15		µg/L	5	3/10/2016 7:08:53 PM	R32729
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Styrene	ND	0.48	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/10/2016 7:08:53 PM	R32729
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/10/2016 7:08:53 PM	R32729
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/10/2016 7:08:53 PM	R32729
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/10/2016 7:08:53 PM	R32729
Surr: 1,2-Dichloroethane-d4	94.8	0	70-130		%Rec	5	3/10/2016 7:08:53 PM	R32729
Surr: 4-Bromofluorobenzene	106	0	70-130		%Rec	5	3/10/2016 7:08:53 PM	R32729
Surr: Dibromofluoromethane	112	0	70-130		%Rec	5	3/10/2016 7:08:53 PM	R32729
Surr: Toluene-d8	107	0	70-130		%Rec	5	3/10/2016 7:08:53 PM	R32729
SM2510B: SPECIFIC CONDUCTANCE							Analyst: **JRR**	
Conductivity	18000	0.10	0.10		µmhos/c	10	3/8/2016 7:21:24 PM	R32665
SM4500-H+B: PH							Analyst: **JRR**	

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.88	0.100	1.68	H	pH units	1	3/7/2016 7:19:24 PM	R32629

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 2
Project: Pond Sampling
Collection Date: 3/2/2016 3:00:00 PM
Lab ID: 1603233-002
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	5.0	0.45	2.0	*	mg/L	20	3/4/2016 1:13:08 PM	R32615
Chloride	3100	14	250		mg/L	500	3/15/2016 1:19:01 PM	R32822
Bromide	12	0.65	2.0		mg/L	20	3/15/2016 12:54:12 PM	R32822
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5		mg/L	5	3/4/2016 1:00:43 PM	R32615
Sulfate	1400	3.2	25		mg/L	50	3/15/2016 1:06:36 PM	R32822
Nitrate+Nitrite as N	ND	1.7	4.0		mg/L	20	3/8/2016 3:30:17 PM	R32663
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.13	0.0013	0.0020		mg/L	1	3/18/2016 5:11:49 PM	C32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 5:11:49 PM	C32891
Calcium	340	1.3	5.0		mg/L	5	3/18/2016 5:13:53 PM	C32891
Chromium	0.0069	0.0018	0.0060		mg/L	1	3/18/2016 5:11:49 PM	C32891
Copper	ND	0.0040	0.0060		mg/L	1	3/18/2016 5:11:49 PM	C32891
Iron	0.63	0.0091	0.020	*	mg/L	1	3/18/2016 5:11:49 PM	C32891
Magnesium	87	0.013	1.0		mg/L	1	3/18/2016 5:11:49 PM	C32891
Manganese	0.22	0.00032	0.0020	*	mg/L	1	3/18/2016 5:11:49 PM	C32891
Potassium	130	0.89	5.0		mg/L	5	3/18/2016 5:13:53 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 5:11:49 PM	C32891
Sodium	2300	4.8	50		mg/L	50	3/23/2016 6:24:55 PM	C33001
Zinc	0.016	0.0028	0.010		mg/L	1	3/18/2016 5:11:49 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.13	0.0011	0.0020		mg/L	1	3/18/2016 4:08:34 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 4:08:34 PM	24150
Chromium	0.0072	0.0022	0.0060		mg/L	1	3/18/2016 4:08:34 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 4:08:34 PM	24150
Iron	0.85	0.036	0.10	*	mg/L	5	3/21/2016 1:22:45 PM	24150
Manganese	0.22	0.0015	0.0020	*	mg/L	1	3/18/2016 4:08:34 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/18/2016 4:08:34 PM	24150
Zinc	0.014	0.0039	0.010		mg/L	1	3/18/2016 4:08:34 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0098	0.00032	0.0050		mg/L	5	3/28/2016 7:26:49 PM	B33120
Lead	0.00039	0.00013	0.0025	J	mg/L	5	3/28/2016 7:26:49 PM	B33120
Selenium	0.017	0.0039	0.020	J	mg/L	20	3/28/2016 7:36:04 PM	B33120
Uranium	0.0044	0.000024	0.0025		mg/L	5	3/28/2016 7:26:49 PM	B33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.011	0.0015	0.0050	*	mg/L	5	3/23/2016 4:07:31 PM	24250
Lead	ND	0.00047	0.0050		mg/L	10	3/23/2016 4:25:38 PM	24250
Selenium	0.018	0.0025	0.020	J	mg/L	20	3/23/2016 4:28:40 PM	24250

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Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.0051	0.000049	0.0050		mg/L	10	3/23/2016 4:25:38 PM	24250
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000071	0.000053	0.00020	J	mg/L	1	3/10/2016 11:13:31 AM	24156
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Aniline	ND	9.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Anthracene	ND	6.6	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/13/2016 10:18:18 PM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/13/2016 10:18:18 PM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Carbazole	ND	7.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/13/2016 10:18:18 PM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/13/2016 10:18:18 PM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Chrysene	ND	6.6	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/13/2016 10:18:18 PM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/13/2016 10:18:18 PM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/13/2016 10:18:18 PM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 2
Project: Pond Sampling
Collection Date: 3/2/2016 3:00:00 PM
Lab ID: 1603233-002
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/13/2016 10:18:18 PM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/13/2016 10:18:18 PM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/13/2016 10:18:18 PM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/13/2016 10:18:18 PM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/13/2016 10:18:18 PM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/13/2016 10:18:18 PM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Fluorene	ND	7.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Isophorone	ND	8.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/13/2016 10:18:18 PM	24121
2-Methylphenol	14	8.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
3+4-Methylphenol	64	7.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/13/2016 10:18:18 PM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/13/2016 10:18:18 PM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/13/2016 10:18:18 PM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/13/2016 10:18:18 PM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Phenol	94	5.1	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Pyrene	ND	5.5	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Pyridine	ND	6.7	10		µg/L	1	3/13/2016 10:18:18 PM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/13/2016 10:18:18 PM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/13/2016 10:18:18 PM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/13/2016 10:18:18 PM	24121
Surr: 2-Fluorophenol	39.7	0	4.63-113		%Rec	1	3/13/2016 10:18:18 PM	24121
Surr: Phenol-d5	39.0	0	4.13-124		%Rec	1	3/13/2016 10:18:18 PM	24121

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 2
Project: Pond Sampling
Collection Date: 3/2/2016 3:00:00 PM
Lab ID: 1603233-002
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	69.4	0	5.14-132		%Rec	1	3/13/2016 10:18:18 PM	24121
Surr: Nitrobenzene-d5	51.8	0	9.13-140		%Rec	1	3/13/2016 10:18:18 PM	24121
Surr: 2-Fluorobiphenyl	45.1	0	10.8-132		%Rec	1	3/13/2016 10:18:18 PM	24121
Surr: 4-Terphenyl-d14	38.1	0	12.9-107		%Rec	1	3/13/2016 10:18:18 PM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	24	0.48	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Toluene	44	0.45	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Ethylbenzene	4.9	0.56	5.0	J	µg/L	5	3/10/2016 7:37:26 PM	R32729
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,2,4-Trimethylbenzene	7.1	0.52	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,3,5-Trimethylbenzene	1.8	0.58	5.0	J	µg/L	5	3/10/2016 7:37:26 PM	R32729
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Naphthalene	1.0	0.42	10	J	µg/L	5	3/10/2016 7:37:26 PM	R32729
1-Methylnaphthalene	1.6	1.0	20	J	µg/L	5	3/10/2016 7:37:26 PM	R32729
2-Methylnaphthalene	1.6	0.79	20	J	µg/L	5	3/10/2016 7:37:26 PM	R32729
Acetone	130	4.4	50		µg/L	5	3/10/2016 7:37:26 PM	R32729
Bromobenzene	ND	0.40	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Bromoform	ND	0.51	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Bromomethane	ND	3.9	15		µg/L	5	3/10/2016 7:37:26 PM	R32729
2-Butanone	6.1	1.6	50	J	µg/L	5	3/10/2016 7:37:26 PM	R32729
Carbon disulfide	64	3.0	50		µg/L	5	3/10/2016 7:37:26 PM	R32729
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Chloroethane	ND	0.73	10		µg/L	5	3/10/2016 7:37:26 PM	R32729
Chloroform	ND	0.44	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Chloromethane	ND	1.1	15		µg/L	5	3/10/2016 7:37:26 PM	R32729
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/10/2016 7:37:26 PM	R32729
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Dibromomethane	ND	0.60	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 2
Project: Pond Sampling
Collection Date: 3/2/2016 3:00:00 PM
Lab ID: 1603233-002
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
2-Hexanone	ND	1.8	50		µg/L	5	3/10/2016 7:37:26 PM	R32729
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/10/2016 7:37:26 PM	R32729
Methylene Chloride	ND	0.31	15		µg/L	5	3/10/2016 7:37:26 PM	R32729
n-Butylbenzene	ND	0.80	15		µg/L	5	3/10/2016 7:37:26 PM	R32729
n-Propylbenzene	0.80	0.66	5.0	J	µg/L	5	3/10/2016 7:37:26 PM	R32729
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Styrene	ND	0.48	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/10/2016 7:37:26 PM	R32729
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/10/2016 7:37:26 PM	R32729
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/10/2016 7:37:26 PM	R32729
Xylenes, Total	32	1.6	7.5		µg/L	5	3/10/2016 7:37:26 PM	R32729
Surr: 1,2-Dichloroethane-d4	96.9	0	70-130		%Rec	5	3/10/2016 7:37:26 PM	R32729
Surr: 4-Bromofluorobenzene	98.8	0	70-130		%Rec	5	3/10/2016 7:37:26 PM	R32729
Surr: Dibromofluoromethane	110	0	70-130		%Rec	5	3/10/2016 7:37:26 PM	R32729
Surr: Toluene-d8	102	0	70-130		%Rec	5	3/10/2016 7:37:26 PM	R32729
SM2510B: SPECIFIC CONDUCTANCE							Analyst: **JRR**	
Conductivity	16000	0.10	0.10		µmhos/c	10	3/8/2016 7:25:44 PM	R32665
SM4500-H+B: PH							Analyst: **JRR**	

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 2
Project: Pond Sampling
Collection Date: 3/2/2016 3:00:00 PM
Lab ID: 1603233-002
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.66	0.100	1.68	H	pH units	1	3/7/2016 7:23:47 PM	R32629

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 5
Project: Pond Sampling
Collection Date: 3/2/2016 2:08:00 PM
Lab ID: 1603233-003
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	27	0.45	2.0	*	mg/L	20	3/4/2016 1:37:57 PM	R32615
Chloride	9100	27	500		mg/L	1000	3/15/2016 1:31:26 PM	R32822
Bromide	6.4	1.6	5.0		mg/L	50	3/17/2016 9:03:27 AM	A32854
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5		mg/L	5	3/4/2016 1:25:33 PM	R32615
Sulfate	2000	64	500		mg/L	1000	3/15/2016 1:31:26 PM	R32822
Nitrate+Nitrite as N	ND	4.2	10		mg/L	50	3/8/2016 3:42:41 PM	R32663
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.15	0.0013	0.0020		mg/L	1	3/18/2016 5:15:59 PM	C32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 5:15:59 PM	C32891
Calcium	380	1.3	5.0		mg/L	5	3/18/2016 5:17:46 PM	C32891
Chromium	0.0097	0.0018	0.0060		mg/L	1	3/18/2016 5:15:59 PM	C32891
Copper	ND	0.0040	0.0060		mg/L	1	3/18/2016 5:15:59 PM	C32891
Iron	0.45	0.0091	0.020	*	mg/L	1	3/18/2016 5:15:59 PM	C32891
Magnesium	180	0.065	5.0		mg/L	5	3/18/2016 5:17:46 PM	C32891
Manganese	0.43	0.00032	0.0020	*	mg/L	1	3/18/2016 5:15:59 PM	C32891
Potassium	190	0.89	5.0		mg/L	5	3/18/2016 5:17:46 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 5:15:59 PM	C32891
Sodium	5200	9.6	100		mg/L	100	3/23/2016 4:49:18 PM	C33001
Zinc	0.020	0.0028	0.010		mg/L	1	3/18/2016 5:15:59 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.15	0.0011	0.0020		mg/L	1	3/18/2016 4:14:51 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 4:14:51 PM	24150
Chromium	0.0090	0.0022	0.0060		mg/L	1	3/18/2016 4:14:51 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 4:14:51 PM	24150
Iron	0.60	0.0072	0.020	*	mg/L	1	3/18/2016 4:14:51 PM	24150
Manganese	0.43	0.0015	0.0020	*	mg/L	1	3/18/2016 4:14:51 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/18/2016 4:14:51 PM	24150
Zinc	0.011	0.0039	0.010		mg/L	1	3/18/2016 4:14:51 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.020	0.00032	0.0050	*	mg/L	5	3/28/2016 7:39:08 PM	B33120
Lead	ND	0.00053	0.010		mg/L	20	3/28/2016 7:42:11 PM	B33120
Selenium	0.019	0.0039	0.020	J	mg/L	20	3/28/2016 7:42:11 PM	B33120
Uranium	0.0034	0.000096	0.010	J	mg/L	20	3/28/2016 7:42:11 PM	B33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.022	0.0029	0.010	*	mg/L	10	3/23/2016 4:55:48 PM	24250
Lead	ND	0.00047	0.0050		mg/L	10	3/23/2016 4:55:48 PM	24250
Selenium	0.020	0.0025	0.020		mg/L	20	3/23/2016 4:34:41 PM	24250

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 5
Project: Pond Sampling
Collection Date: 3/2/2016 2:08:00 PM
Lab ID: 1603233-003
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.0039	0.000049	0.0050	J	mg/L	10	3/23/2016 4:55:48 PM	24250
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000067	0.000053	0.00020	J	mg/L	1	3/10/2016 11:15:37 AM	24156
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Aniline	ND	9.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Anthracene	ND	6.6	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/13/2016 10:47:45 PM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/13/2016 10:47:45 PM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Carbazole	ND	7.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/13/2016 10:47:45 PM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/13/2016 10:47:45 PM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Chrysene	ND	6.6	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/13/2016 10:47:45 PM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/13/2016 10:47:45 PM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/13/2016 10:47:45 PM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121

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Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/13/2016 10:47:45 PM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/13/2016 10:47:45 PM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/13/2016 10:47:45 PM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/13/2016 10:47:45 PM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/13/2016 10:47:45 PM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/13/2016 10:47:45 PM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Fluorene	ND	7.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Isophorone	ND	8.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/13/2016 10:47:45 PM	24121
2-Methylphenol	ND	8.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
3+4-Methylphenol	34	7.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/13/2016 10:47:45 PM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/13/2016 10:47:45 PM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/13/2016 10:47:45 PM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/13/2016 10:47:45 PM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Phenol	18	5.1	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Pyrene	ND	5.5	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Pyridine	ND	6.7	10		µg/L	1	3/13/2016 10:47:45 PM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/13/2016 10:47:45 PM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/13/2016 10:47:45 PM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/13/2016 10:47:45 PM	24121
Surr: 2-Fluorophenol	42.7	0	4.63-113		%Rec	1	3/13/2016 10:47:45 PM	24121
Surr: Phenol-d5	47.3	0	4.13-124		%Rec	1	3/13/2016 10:47:45 PM	24121

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Lab ID: 1603233-003
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	69.8	0	5.14-132		%Rec	1	3/13/2016 10:47:45 PM	24121
Surr: Nitrobenzene-d5	81.3	0	9.13-140		%Rec	1	3/13/2016 10:47:45 PM	24121
Surr: 2-Fluorobiphenyl	72.5	0	10.8-132		%Rec	1	3/13/2016 10:47:45 PM	24121
Surr: 4-Terphenyl-d14	47.6	0	12.9-107		%Rec	1	3/13/2016 10:47:45 PM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.48	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Toluene	ND	0.45	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Ethylbenzene	ND	0.56	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Naphthalene	ND	0.42	10		µg/L	5	3/10/2016 8:06:14 PM	R32729
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/10/2016 8:06:14 PM	R32729
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/10/2016 8:06:14 PM	R32729
Acetone	14	4.4	50	J	µg/L	5	3/10/2016 8:06:14 PM	R32729
Bromobenzene	ND	0.40	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Bromoform	ND	0.51	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Bromomethane	ND	3.9	15		µg/L	5	3/10/2016 8:06:14 PM	R32729
2-Butanone	1.7	1.6	50	J	µg/L	5	3/10/2016 8:06:14 PM	R32729
Carbon disulfide	10	3.0	50	J	µg/L	5	3/10/2016 8:06:14 PM	R32729
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Chloroethane	ND	0.73	10		µg/L	5	3/10/2016 8:06:14 PM	R32729
Chloroform	ND	0.44	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Chloromethane	ND	1.1	15		µg/L	5	3/10/2016 8:06:14 PM	R32729
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/10/2016 8:06:14 PM	R32729
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Dibromomethane	ND	0.60	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
2-Hexanone	ND	1.8	50		µg/L	5	3/10/2016 8:06:14 PM	R32729
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/10/2016 8:06:14 PM	R32729
Methylene Chloride	ND	0.31	15		µg/L	5	3/10/2016 8:06:14 PM	R32729
n-Butylbenzene	ND	0.80	15		µg/L	5	3/10/2016 8:06:14 PM	R32729
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Styrene	ND	0.48	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/10/2016 8:06:14 PM	R32729
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/10/2016 8:06:14 PM	R32729
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/10/2016 8:06:14 PM	R32729
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/10/2016 8:06:14 PM	R32729
Surr: 1,2-Dichloroethane-d4	94.1	0	70-130		%Rec	5	3/10/2016 8:06:14 PM	R32729
Surr: 4-Bromofluorobenzene	97.0	0	70-130		%Rec	5	3/10/2016 8:06:14 PM	R32729
Surr: Dibromofluoromethane	109	0	70-130		%Rec	5	3/10/2016 8:06:14 PM	R32729
Surr: Toluene-d8	101	0	70-130		%Rec	5	3/10/2016 8:06:14 PM	R32729
SM2510B: SPECIFIC CONDUCTANCE							Analyst: **JRR**	
Conductivity	31000	0.10	0.10		µmhos/c	10	3/8/2016 7:29:56 PM	R32665
SM4500-H+B: PH							Analyst: **JRR**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 5
Project: Pond Sampling
Collection Date: 3/2/2016 2:08:00 PM
Lab ID: 1603233-003
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.77	0.100	1.68	H	pH units	1	3/7/2016 7:28:10 PM	R32629

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 4
Project: Pond Sampling
Collection Date: 3/2/2016 2:25:00 PM
Lab ID: 1603233-004
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	24	0.45	2.0	*	mg/L	20	3/4/2016 2:27:36 PM	R32615
Chloride	8000	27	500		mg/L	1000	3/15/2016 2:21:05 PM	R32822
Bromide	23	1.6	5.0		mg/L	50	3/15/2016 1:43:51 PM	R32822
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5		mg/L	5	3/4/2016 2:15:11 PM	R32615
Sulfate	1800	3.2	25		mg/L	50	3/15/2016 1:43:51 PM	R32822
Nitrate+Nitrite as N	ND	4.2	10		mg/L	50	3/8/2016 3:55:05 PM	R32663
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.15	0.0013	0.0020		mg/L	1	3/18/2016 5:19:56 PM	C32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 5:19:56 PM	C32891
Calcium	410	1.3	5.0		mg/L	5	3/18/2016 5:31:42 PM	C32891
Chromium	0.0088	0.0018	0.0060		mg/L	1	3/18/2016 5:19:56 PM	C32891
Copper	ND	0.0040	0.0060		mg/L	1	3/18/2016 5:19:56 PM	C32891
Iron	0.49	0.0091	0.020	*	mg/L	1	3/18/2016 5:19:56 PM	C32891
Magnesium	190	0.065	5.0		mg/L	5	3/18/2016 5:31:42 PM	C32891
Manganese	0.43	0.00032	0.0020	*	mg/L	1	3/18/2016 5:19:56 PM	C32891
Potassium	200	0.89	5.0		mg/L	5	3/18/2016 5:31:42 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 5:19:56 PM	C32891
Sodium	5000	9.6	100		mg/L	100	3/23/2016 4:51:08 PM	C33001
Zinc	0.018	0.0028	0.010		mg/L	1	3/18/2016 5:19:56 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.15	0.0011	0.0020		mg/L	1	3/18/2016 4:16:43 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 4:16:43 PM	24150
Chromium	0.0086	0.0022	0.0060		mg/L	1	3/18/2016 4:16:43 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 4:16:43 PM	24150
Iron	0.63	0.0072	0.020	*	mg/L	1	3/18/2016 4:16:43 PM	24150
Manganese	0.43	0.0015	0.0020	*	mg/L	1	3/18/2016 4:16:43 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/18/2016 4:16:43 PM	24150
Zinc	0.012	0.0039	0.010		mg/L	1	3/18/2016 4:16:43 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.019	0.00032	0.0050	*	mg/L	5	3/28/2016 7:45:14 PM	B33120
Lead	0.00059	0.00053	0.010	J	mg/L	20	3/28/2016 7:51:21 PM	B33120
Selenium	0.020	0.0039	0.020	J	mg/L	20	3/28/2016 7:51:21 PM	B33120
Uranium	0.0035	0.000096	0.010	J	mg/L	20	3/28/2016 7:51:21 PM	B33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.023	0.0029	0.010	*	mg/L	10	3/23/2016 5:01:51 PM	24250
Lead	ND	0.00047	0.0050		mg/L	10	3/23/2016 5:01:51 PM	24250
Selenium	0.021	0.0025	0.020		mg/L	20	3/23/2016 4:40:42 PM	24250

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 4
Project: Pond Sampling
Collection Date: 3/2/2016 2:25:00 PM
Lab ID: 1603233-004
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.0040	0.000049	0.0050	J	mg/L	10	3/23/2016 5:01:51 PM	24250
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000073	0.000053	0.00020	J	mg/L	1	3/10/2016 11:17:44 AM	24156
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Aniline	ND	9.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Anthracene	ND	6.6	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/13/2016 11:17:13 PM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/13/2016 11:17:13 PM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Carbazole	ND	7.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/13/2016 11:17:13 PM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/13/2016 11:17:13 PM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Chrysene	ND	6.6	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/13/2016 11:17:13 PM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/13/2016 11:17:13 PM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/13/2016 11:17:13 PM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 4
Project: Pond Sampling
Collection Date: 3/2/2016 2:25:00 PM
Lab ID: 1603233-004
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/13/2016 11:17:13 PM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/13/2016 11:17:13 PM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/13/2016 11:17:13 PM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/13/2016 11:17:13 PM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/13/2016 11:17:13 PM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/13/2016 11:17:13 PM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Fluorene	ND	7.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Isophorone	ND	8.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/13/2016 11:17:13 PM	24121
2-Methylphenol	ND	8.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
3+4-Methylphenol	42	7.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/13/2016 11:17:13 PM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/13/2016 11:17:13 PM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/13/2016 11:17:13 PM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/13/2016 11:17:13 PM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Phenol	26	5.1	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Pyrene	ND	5.5	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Pyridine	ND	6.7	10		µg/L	1	3/13/2016 11:17:13 PM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/13/2016 11:17:13 PM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/13/2016 11:17:13 PM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/13/2016 11:17:13 PM	24121
Surr: 2-Fluorophenol	63.4	0	4.63-113		%Rec	1	3/13/2016 11:17:13 PM	24121
Surr: Phenol-d5	51.5	0	4.13-124		%Rec	1	3/13/2016 11:17:13 PM	24121

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 4
Project: Pond Sampling
Collection Date: 3/2/2016 2:25:00 PM
Lab ID: 1603233-004
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	96.6	0	5.14-132		%Rec	1	3/13/2016 11:17:13 PM	24121
Surr: Nitrobenzene-d5	89.9	0	9.13-140		%Rec	1	3/13/2016 11:17:13 PM	24121
Surr: 2-Fluorobiphenyl	74.6	0	10.8-132		%Rec	1	3/13/2016 11:17:13 PM	24121
Surr: 4-Terphenyl-d14	48.4	0	12.9-107		%Rec	1	3/13/2016 11:17:13 PM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.48	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Toluene	ND	0.45	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Ethylbenzene	ND	0.56	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Naphthalene	ND	0.42	10		µg/L	5	3/10/2016 8:35:02 PM	R32729
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/10/2016 8:35:02 PM	R32729
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/10/2016 8:35:02 PM	R32729
Acetone	20	4.4	50	J	µg/L	5	3/10/2016 8:35:02 PM	R32729
Bromobenzene	ND	0.40	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Bromoform	ND	0.51	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Bromomethane	ND	3.9	15		µg/L	5	3/10/2016 8:35:02 PM	R32729
2-Butanone	2.7	1.6	50	J	µg/L	5	3/10/2016 8:35:02 PM	R32729
Carbon disulfide	23	3.0	50	J	µg/L	5	3/10/2016 8:35:02 PM	R32729
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Chloroethane	ND	0.73	10		µg/L	5	3/10/2016 8:35:02 PM	R32729
Chloroform	ND	0.44	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Chloromethane	ND	1.1	15		µg/L	5	3/10/2016 8:35:02 PM	R32729
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/10/2016 8:35:02 PM	R32729
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Dibromomethane	ND	0.60	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 4
Project: Pond Sampling
Collection Date: 3/2/2016 2:25:00 PM
Lab ID: 1603233-004
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
2-Hexanone	ND	1.8	50		µg/L	5	3/10/2016 8:35:02 PM	R32729
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/10/2016 8:35:02 PM	R32729
Methylene Chloride	ND	0.31	15		µg/L	5	3/10/2016 8:35:02 PM	R32729
n-Butylbenzene	ND	0.80	15		µg/L	5	3/10/2016 8:35:02 PM	R32729
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Styrene	ND	0.48	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/10/2016 8:35:02 PM	R32729
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/10/2016 8:35:02 PM	R32729
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/10/2016 8:35:02 PM	R32729
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/10/2016 8:35:02 PM	R32729
Surr: 1,2-Dichloroethane-d4	89.7	0	70-130		%Rec	5	3/10/2016 8:35:02 PM	R32729
Surr: 4-Bromofluorobenzene	97.4	0	70-130		%Rec	5	3/10/2016 8:35:02 PM	R32729
Surr: Dibromofluoromethane	108	0	70-130		%Rec	5	3/10/2016 8:35:02 PM	R32729
Surr: Toluene-d8	101	0	70-130		%Rec	5	3/10/2016 8:35:02 PM	R32729
SM2510B: SPECIFIC CONDUCTANCE							Analyst: **JRR**	
Conductivity	31000	0.10	0.10		µmhos/c	10	3/8/2016 7:34:00 PM	R32665
SM4500-H+B: PH							Analyst: **JRR**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 4
Project: Pond Sampling
Collection Date: 3/2/2016 2:25:00 PM
Lab ID: 1603233-004
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.76	0.100	1.68	H	pH units	1	3/7/2016 7:32:43 PM	R32629

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7
Project: Pond Sampling
Collection Date: 3/2/2016 3:25:00 PM
Lab ID: 1603233-005
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	20	1.1	5.0	*	mg/L	50	3/15/2016 2:33:29 PM	R32822
Chloride	49000	140	2500		mg/L	5000	3/17/2016 9:53:04 AM	A32854
Bromide	25	3.2	10		mg/L	100	3/17/2016 9:15:51 AM	A32854
Phosphorus, Orthophosphate (As P)	ND	4.4	10		mg/L	20	3/4/2016 2:52:25 PM	R32615
Sulfate	12000	130	1000		mg/L	2000	3/15/2016 2:45:54 PM	R32822
Nitrate+Nitrite as N	ND	17	40		mg/L	200	3/17/2016 10:30:17 AM	A32854
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.18	0.0066	0.010		mg/L	5	3/18/2016 5:35:52 PM	C32891
Cadmium	ND	0.0037	0.010		mg/L	5	3/18/2016 5:35:52 PM	C32891
Calcium	860	5.1	20		mg/L	20	3/23/2016 4:52:56 PM	C33001
Chromium	0.0090	0.0088	0.030	J	mg/L	5	3/18/2016 5:35:52 PM	C32891
Copper	ND	0.020	0.030		mg/L	5	3/18/2016 5:35:52 PM	C32891
Iron	0.52	0.045	0.10	*	mg/L	5	3/18/2016 5:35:52 PM	C32891
Magnesium	900	0.26	20		mg/L	20	3/23/2016 4:52:56 PM	C33001
Manganese	0.42	0.0016	0.010	*	mg/L	5	3/18/2016 5:35:52 PM	C32891
Potassium	1200	3.5	20		mg/L	20	3/23/2016 4:52:56 PM	C33001
Silver	ND	0.014	0.025		mg/L	5	3/18/2016 5:35:52 PM	C32891
Sodium	24000	48	500		mg/L	500	3/23/2016 4:54:59 PM	C33001
Zinc	0.020	0.014	0.050	J	mg/L	5	3/18/2016 5:35:52 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.20	0.0053	0.010		mg/L	5	3/21/2016 1:28:56 PM	24150
Cadmium	ND	0.0031	0.010		mg/L	5	3/21/2016 1:28:56 PM	24150
Chromium	0.012	0.011	0.030	J	mg/L	5	3/21/2016 1:28:56 PM	24150
Copper	ND	0.026	0.030		mg/L	5	3/21/2016 1:28:56 PM	24150
Iron	2.0	0.036	0.10	*	mg/L	5	3/21/2016 1:28:56 PM	24150
Manganese	0.61	0.0076	0.010	*	mg/L	5	3/21/2016 1:28:56 PM	24150
Silver	ND	0.011	0.025		mg/L	5	3/21/2016 1:28:56 PM	24150
Zinc	0.023	0.019	0.050	J	mg/L	5	3/21/2016 1:28:56 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.078	0.0032	0.050	*	mg/L	50	3/28/2016 7:57:28 PM	B33120
Lead	0.0016	0.0013	0.025	J	mg/L	50	3/28/2016 7:57:28 PM	B33120
Selenium	0.066	0.019	0.10	J*	mg/L	100	3/29/2016 5:15:09 PM	B33154
Uranium	0.0060	0.00024	0.025	J	mg/L	50	3/28/2016 7:57:28 PM	B33120
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.069	0.029	0.10	J*	mg/L	100	3/23/2016 5:04:52 PM	24250
Lead	ND	0.0024	0.025		mg/L	50	3/23/2016 4:46:43 PM	24250
Selenium	0.071	0.012	0.10	J*	mg/L	100	3/23/2016 5:04:52 PM	24250

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7
Project: Pond Sampling
Collection Date: 3/2/2016 3:25:00 PM
Lab ID: 1603233-005
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.0059	0.00025	0.025	J	mg/L	50	3/23/2016 4:46:43 PM	24250
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000092	0.000053	0.00020	J	mg/L	1	3/10/2016 11:19:44 AM	24156
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Aniline	ND	9.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Anthracene	ND	6.6	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/13/2016 11:46:39 PM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/13/2016 11:46:39 PM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Carbazole	ND	7.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/13/2016 11:46:39 PM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/13/2016 11:46:39 PM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Chrysene	ND	6.6	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/13/2016 11:46:39 PM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/13/2016 11:46:39 PM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/13/2016 11:46:39 PM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7
Project: Pond Sampling
Collection Date: 3/2/2016 3:25:00 PM
Lab ID: 1603233-005
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/13/2016 11:46:39 PM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/13/2016 11:46:39 PM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/13/2016 11:46:39 PM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/13/2016 11:46:39 PM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/13/2016 11:46:39 PM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/13/2016 11:46:39 PM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Fluorene	ND	7.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Isophorone	ND	8.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/13/2016 11:46:39 PM	24121
2-Methylphenol	ND	8.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/13/2016 11:46:39 PM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/13/2016 11:46:39 PM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/13/2016 11:46:39 PM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/13/2016 11:46:39 PM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Phenol	ND	5.1	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Pyrene	ND	5.5	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Pyridine	ND	6.7	10		µg/L	1	3/13/2016 11:46:39 PM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/13/2016 11:46:39 PM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/13/2016 11:46:39 PM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/13/2016 11:46:39 PM	24121
Surr: 2-Fluorophenol	68.8	0	4.63-113		%Rec	1	3/13/2016 11:46:39 PM	24121
Surr: Phenol-d5	60.1	0	4.13-124		%Rec	1	3/13/2016 11:46:39 PM	24121

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7
Project: Pond Sampling
Collection Date: 3/2/2016 3:25:00 PM
Lab ID: 1603233-005
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	84.6	0	5.14-132		%Rec	1	3/13/2016 11:46:39 PM	24121
Surr: Nitrobenzene-d5	88.7	0	9.13-140		%Rec	1	3/13/2016 11:46:39 PM	24121
Surr: 2-Fluorobiphenyl	74.5	0	10.8-132		%Rec	1	3/13/2016 11:46:39 PM	24121
Surr: 4-Terphenyl-d14	43.2	0	12.9-107		%Rec	1	3/13/2016 11:46:39 PM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.48	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Toluene	ND	0.45	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Ethylbenzene	ND	0.56	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Naphthalene	ND	0.42	10		µg/L	5	3/10/2016 9:03:55 PM	R32729
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/10/2016 9:03:55 PM	R32729
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/10/2016 9:03:55 PM	R32729
Acetone	18	4.4	50	J	µg/L	5	3/10/2016 9:03:55 PM	R32729
Bromobenzene	ND	0.40	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Bromoform	ND	0.51	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Bromomethane	ND	3.9	15		µg/L	5	3/10/2016 9:03:55 PM	R32729
2-Butanone	ND	1.6	50		µg/L	5	3/10/2016 9:03:55 PM	R32729
Carbon disulfide	ND	3.0	50		µg/L	5	3/10/2016 9:03:55 PM	R32729
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Chloroethane	ND	0.73	10		µg/L	5	3/10/2016 9:03:55 PM	R32729
Chloroform	ND	0.44	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Chloromethane	6.3	1.1	15	J	µg/L	5	3/10/2016 9:03:55 PM	R32729
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/10/2016 9:03:55 PM	R32729
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Dibromomethane	ND	0.60	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7
Project: Pond Sampling
Collection Date: 3/2/2016 3:25:00 PM
Lab ID: 1603233-005
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
2-Hexanone	ND	1.8	50		µg/L	5	3/10/2016 9:03:55 PM	R32729
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/10/2016 9:03:55 PM	R32729
Methylene Chloride	ND	0.31	15		µg/L	5	3/10/2016 9:03:55 PM	R32729
n-Butylbenzene	ND	0.80	15		µg/L	5	3/10/2016 9:03:55 PM	R32729
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Styrene	ND	0.48	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/10/2016 9:03:55 PM	R32729
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/10/2016 9:03:55 PM	R32729
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/10/2016 9:03:55 PM	R32729
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/10/2016 9:03:55 PM	R32729
Surr: 1,2-Dichloroethane-d4	97.2	0	70-130		%Rec	5	3/10/2016 9:03:55 PM	R32729
Surr: 4-Bromofluorobenzene	105	0	70-130		%Rec	5	3/10/2016 9:03:55 PM	R32729
Surr: Dibromofluoromethane	111	0	70-130		%Rec	5	3/10/2016 9:03:55 PM	R32729
Surr: Toluene-d8	103	0	70-130		%Rec	5	3/10/2016 9:03:55 PM	R32729
SM2510B: SPECIFIC CONDUCTANCE							Analyst: **JRR**	
Conductivity	130000	0.50	0.50		µmhos/c	50	3/8/2016 7:38:14 PM	R32665
SM4500-H+B: PH							Analyst: **JRR**	

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 7
Project: Pond Sampling
Collection Date: 3/2/2016 3:25:00 PM
Lab ID: 1603233-005
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.88	0.100	1.68	H	pH units	1	3/7/2016 7:37:05 PM	R32629

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 11
Project: Pond Sampling
Collection Date: 3/2/2016 3:45:00 PM
Lab ID: 1603233-006
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	29	2.3	10	*	mg/L	100	3/4/2016 3:17:14 PM	R32615
Chloride	50000	140	2500		mg/L	5000	3/17/2016 10:05:28 AM	A32854
Bromide	21	3.2	10		mg/L	100	3/4/2016 3:17:14 PM	R32615
Phosphorus, Orthophosphate (As P)	ND	22	50		mg/L	100	3/4/2016 3:17:14 PM	R32615
Sulfate	11000	64	500		mg/L	1000	3/15/2016 8:21:03 PM	R32822
Nitrate+Nitrite as N	ND	17	40		mg/L	200	3/17/2016 10:42:41 AM	A32854
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.20	0.0066	0.010		mg/L	5	3/18/2016 5:39:36 PM	C32891
Cadmium	ND	0.0037	0.010		mg/L	5	3/18/2016 5:39:36 PM	C32891
Calcium	850	5.1	20		mg/L	20	3/23/2016 5:02:19 PM	C33001
Chromium	ND	0.0088	0.030		mg/L	5	3/18/2016 5:39:36 PM	C32891
Copper	ND	0.020	0.030		mg/L	5	3/18/2016 5:39:36 PM	C32891
Iron	0.22	0.045	0.10		mg/L	5	3/18/2016 5:39:36 PM	C32891
Magnesium	870	0.26	20		mg/L	20	3/23/2016 5:02:19 PM	C33001
Manganese	0.42	0.0016	0.010	*	mg/L	5	3/18/2016 5:39:36 PM	C32891
Potassium	1100	3.5	20		mg/L	20	3/23/2016 5:02:19 PM	C33001
Silver	ND	0.014	0.025		mg/L	5	3/18/2016 5:39:36 PM	C32891
Sodium	23000	48	500		mg/L	500	3/23/2016 5:04:24 PM	C33001
Zinc	0.028	0.014	0.050	J	mg/L	5	3/18/2016 5:39:36 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.19	0.0053	0.010		mg/L	5	3/21/2016 1:32:36 PM	24150
Cadmium	ND	0.0031	0.010		mg/L	5	3/21/2016 1:32:36 PM	24150
Chromium	ND	0.011	0.030		mg/L	5	3/21/2016 1:32:36 PM	24150
Copper	ND	0.026	0.030		mg/L	5	3/21/2016 1:32:36 PM	24150
Iron	2.9	0.036	0.10	*	mg/L	5	3/21/2016 1:32:36 PM	24150
Manganese	0.55	0.0076	0.010	*	mg/L	5	3/21/2016 1:32:36 PM	24150
Silver	ND	0.011	0.025		mg/L	5	3/21/2016 1:32:36 PM	24150
Zinc	0.021	0.019	0.050	J	mg/L	5	3/21/2016 1:32:36 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.076	0.0032	0.050	*	mg/L	50	3/29/2016 5:21:16 PM	B33154
Lead	0.0023	0.0013	0.025	J	mg/L	50	3/29/2016 5:21:16 PM	B33154
Selenium	0.088	0.019	0.10	J*	mg/L	100	3/31/2016 2:26:45 PM	B33223
Uranium	0.0057	0.00024	0.025	J	mg/L	50	3/29/2016 5:21:16 PM	B33154
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.086	0.015	0.050	*	mg/L	50	3/23/2016 5:07:53 PM	24250
Lead	ND	0.0024	0.025		mg/L	50	3/23/2016 5:07:53 PM	24250
Selenium	0.075	0.012	0.10	J*	mg/L	100	3/23/2016 5:19:56 PM	24250

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 11
Project: Pond Sampling
Collection Date: 3/2/2016 3:45:00 PM
Lab ID: 1603233-006
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.0066	0.00025	0.025	J	mg/L	50	3/23/2016 5:07:53 PM	24250
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000077	0.000053	0.00020	J	mg/L	1	3/10/2016 11:21:44 AM	24156
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Aniline	ND	9.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Anthracene	ND	6.6	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/14/2016 12:15:58 AM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/14/2016 12:15:58 AM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Carbazole	ND	7.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/14/2016 12:15:58 AM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/14/2016 12:15:58 AM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Chrysene	ND	6.6	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/14/2016 12:15:58 AM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/14/2016 12:15:58 AM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/14/2016 12:15:58 AM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121

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Collection Date: 3/2/2016 3:45:00 PM
Lab ID: 1603233-006
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Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/14/2016 12:15:58 AM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/14/2016 12:15:58 AM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/14/2016 12:15:58 AM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/14/2016 12:15:58 AM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/14/2016 12:15:58 AM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/14/2016 12:15:58 AM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Fluorene	ND	7.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Isophorone	ND	8.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/14/2016 12:15:58 AM	24121
2-Methylphenol	ND	8.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/14/2016 12:15:58 AM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/14/2016 12:15:58 AM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/14/2016 12:15:58 AM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/14/2016 12:15:58 AM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Phenol	ND	5.1	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Pyrene	ND	5.5	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Pyridine	ND	6.7	10		µg/L	1	3/14/2016 12:15:58 AM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/14/2016 12:15:58 AM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/14/2016 12:15:58 AM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/14/2016 12:15:58 AM	24121
Surr: 2-Fluorophenol	37.8	0	4.63-113		%Rec	1	3/14/2016 12:15:58 AM	24121
Surr: Phenol-d5	47.5	0	4.13-124		%Rec	1	3/14/2016 12:15:58 AM	24121

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 11
Project: Pond Sampling
Collection Date: 3/2/2016 3:45:00 PM
Lab ID: 1603233-006
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	60.6	0	5.14-132		%Rec	1	3/14/2016 12:15:58 AM	24121
Surr: Nitrobenzene-d5	57.9	0	9.13-140		%Rec	1	3/14/2016 12:15:58 AM	24121
Surr: 2-Fluorobiphenyl	53.2	0	10.8-132		%Rec	1	3/14/2016 12:15:58 AM	24121
Surr: 4-Terphenyl-d14	35.8	0	12.9-107		%Rec	1	3/14/2016 12:15:58 AM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.48	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Toluene	ND	0.45	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Ethylbenzene	ND	0.56	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Naphthalene	ND	0.42	10		µg/L	5	3/10/2016 9:32:43 PM	R32729
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/10/2016 9:32:43 PM	R32729
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/10/2016 9:32:43 PM	R32729
Acetone	12	4.4	50	J	µg/L	5	3/10/2016 9:32:43 PM	R32729
Bromobenzene	ND	0.40	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Bromoform	ND	0.51	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Bromomethane	ND	3.9	15		µg/L	5	3/10/2016 9:32:43 PM	R32729
2-Butanone	2.0	1.6	50	J	µg/L	5	3/10/2016 9:32:43 PM	R32729
Carbon disulfide	ND	3.0	50		µg/L	5	3/10/2016 9:32:43 PM	R32729
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Chloroethane	ND	0.73	10		µg/L	5	3/10/2016 9:32:43 PM	R32729
Chloroform	ND	0.44	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Chloromethane	6.5	1.1	15	J	µg/L	5	3/10/2016 9:32:43 PM	R32729
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/10/2016 9:32:43 PM	R32729
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Dibromomethane	ND	0.60	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 11
Project: Pond Sampling
Collection Date: 3/2/2016 3:45:00 PM
Lab ID: 1603233-006
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
2-Hexanone	ND	1.8	50		µg/L	5	3/10/2016 9:32:43 PM	R32729
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/10/2016 9:32:43 PM	R32729
Methylene Chloride	ND	0.31	15		µg/L	5	3/10/2016 9:32:43 PM	R32729
n-Butylbenzene	ND	0.80	15		µg/L	5	3/10/2016 9:32:43 PM	R32729
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Styrene	ND	0.48	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/10/2016 9:32:43 PM	R32729
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/10/2016 9:32:43 PM	R32729
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/10/2016 9:32:43 PM	R32729
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/10/2016 9:32:43 PM	R32729
Surr: 1,2-Dichloroethane-d4	92.5	0	70-130		%Rec	5	3/10/2016 9:32:43 PM	R32729
Surr: 4-Bromofluorobenzene	99.5	0	70-130		%Rec	5	3/10/2016 9:32:43 PM	R32729
Surr: Dibromofluoromethane	108	0	70-130		%Rec	5	3/10/2016 9:32:43 PM	R32729
Surr: Toluene-d8	112	0	70-130		%Rec	5	3/10/2016 9:32:43 PM	R32729
SM2510B: SPECIFIC CONDUCTANCE							Analyst: **JRR**	
Conductivity	130000	0.50	0.50		µmhos/c	50	3/8/2016 7:42:20 PM	R32665
SM4500-H+B: PH							Analyst: **JRR**	

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 11
Project: Pond Sampling
Collection Date: 3/2/2016 3:45:00 PM
Lab ID: 1603233-006
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.88	0.100	1.68	H	pH units	1	3/7/2016 7:41:26 PM	R32629

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12A
Project: Pond Sampling
Collection Date: 3/2/2016 4:05:00 PM
Lab ID: 1603233-007
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	24	0.23	1.0	*	mg/L	10	3/4/2016 3:29:39 PM	R32615
Chloride	6500	14	250		mg/L	500	3/17/2016 10:17:53 AM	A32854
Bromide	5.2	0.32	1.0		mg/L	10	3/4/2016 3:29:39 PM	R32615
Phosphorus, Orthophosphate (As P)	ND	2.2	5.0		mg/L	10	3/4/2016 3:29:39 PM	R32615
Sulfate	1600	6.4	50		mg/L	100	3/4/2016 3:42:03 PM	R32615
Nitrate+Nitrite as N	ND	4.2	10		mg/L	50	3/15/2016 4:12:47 PM	R32822
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.14	0.0013	0.0020		mg/L	1	3/18/2016 5:41:24 PM	C32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 5:41:24 PM	C32891
Calcium	380	1.3	5.0		mg/L	5	3/18/2016 5:43:17 PM	C32891
Chromium	0.0098	0.0018	0.0060		mg/L	1	3/18/2016 5:41:24 PM	C32891
Copper	ND	0.0040	0.0060		mg/L	1	3/18/2016 5:41:24 PM	C32891
Iron	0.79	0.0091	0.020	*	mg/L	1	3/18/2016 5:41:24 PM	C32891
Magnesium	150	0.065	5.0		mg/L	5	3/18/2016 5:43:17 PM	C32891
Manganese	0.39	0.00032	0.0020	*	mg/L	1	3/18/2016 5:41:24 PM	C32891
Potassium	180	0.89	5.0		mg/L	5	3/18/2016 5:43:17 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 5:41:24 PM	C32891
Sodium	4000	4.8	50		mg/L	50	3/23/2016 5:06:09 PM	C33001
Zinc	0.018	0.0028	0.010		mg/L	1	3/18/2016 5:41:24 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.16	0.0011	0.0020		mg/L	1	3/18/2016 4:22:09 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 4:22:09 PM	24150
Chromium	0.011	0.0022	0.0060		mg/L	1	3/18/2016 4:22:09 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 4:22:09 PM	24150
Iron	2.3	0.036	0.10	*	mg/L	5	3/21/2016 1:44:28 PM	24150
Manganese	0.39	0.0015	0.0020	*	mg/L	1	3/18/2016 4:22:09 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/18/2016 4:22:09 PM	24150
Zinc	0.015	0.0039	0.010		mg/L	1	3/18/2016 4:22:09 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.019	0.00032	0.0050	*	mg/L	5	3/29/2016 5:24:19 PM	B33154
Lead	0.0011	0.00053	0.010	J	mg/L	20	3/29/2016 5:27:23 PM	B33154
Selenium	0.031	0.0097	0.050	J	mg/L	50	3/31/2016 2:29:48 PM	B33223
Uranium	0.0035	0.000096	0.010	J	mg/L	20	3/29/2016 5:27:23 PM	B33154
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.021	0.0029	0.010	*	mg/L	10	3/23/2016 5:10:53 PM	24250
Lead	ND	0.0024	0.025		mg/L	50	3/23/2016 5:13:54 PM	24250
Selenium	0.022	0.0062	0.050	J	mg/L	50	3/23/2016 5:13:54 PM	24250

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12A
Project: Pond Sampling
Collection Date: 3/2/2016 4:05:00 PM
Lab ID: 1603233-007
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.0041	0.00025	0.025	J	mg/L	50	3/23/2016 5:13:54 PM	24250
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	3/10/2016 11:23:45 AM	24156
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Aniline	ND	9.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Anthracene	ND	6.6	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/14/2016 12:45:47 AM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/14/2016 12:45:47 AM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Carbazole	ND	7.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/14/2016 12:45:47 AM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/14/2016 12:45:47 AM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Chrysene	ND	6.6	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/14/2016 12:45:47 AM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/14/2016 12:45:47 AM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/14/2016 12:45:47 AM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12A
Project: Pond Sampling
Collection Date: 3/2/2016 4:05:00 PM
Lab ID: 1603233-007
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/14/2016 12:45:47 AM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/14/2016 12:45:47 AM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/14/2016 12:45:47 AM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/14/2016 12:45:47 AM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/14/2016 12:45:47 AM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/14/2016 12:45:47 AM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Fluorene	ND	7.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Isophorone	ND	8.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/14/2016 12:45:47 AM	24121
2-Methylphenol	ND	8.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/14/2016 12:45:47 AM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/14/2016 12:45:47 AM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/14/2016 12:45:47 AM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/14/2016 12:45:47 AM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Phenol	ND	5.1	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Pyrene	ND	5.5	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Pyridine	ND	6.7	10		µg/L	1	3/14/2016 12:45:47 AM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/14/2016 12:45:47 AM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/14/2016 12:45:47 AM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/14/2016 12:45:47 AM	24121
Surr: 2-Fluorophenol	62.8	0	4.63-113		%Rec	1	3/14/2016 12:45:47 AM	24121
Surr: Phenol-d5	52.1	0	4.13-124		%Rec	1	3/14/2016 12:45:47 AM	24121

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12A
Project: Pond Sampling
Collection Date: 3/2/2016 4:05:00 PM
Lab ID: 1603233-007
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	93.2	0	5.14-132		%Rec	1	3/14/2016 12:45:47 AM	24121
Surr: Nitrobenzene-d5	83.6	0	9.13-140		%Rec	1	3/14/2016 12:45:47 AM	24121
Surr: 2-Fluorobiphenyl	75.8	0	10.8-132		%Rec	1	3/14/2016 12:45:47 AM	24121
Surr: 4-Terphenyl-d14	53.2	0	12.9-107		%Rec	1	3/14/2016 12:45:47 AM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.48	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Toluene	ND	0.45	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Ethylbenzene	ND	0.56	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Naphthalene	ND	0.42	10		µg/L	5	3/10/2016 10:01:28 PM	R32729
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/10/2016 10:01:28 PM	R32729
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/10/2016 10:01:28 PM	R32729
Acetone	6.5	4.4	50	J	µg/L	5	3/10/2016 10:01:28 PM	R32729
Bromobenzene	ND	0.40	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Bromoform	ND	0.51	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Bromomethane	40	3.9	15		µg/L	5	3/10/2016 10:01:28 PM	R32729
2-Butanone	2.4	1.6	50	J	µg/L	5	3/10/2016 10:01:28 PM	R32729
Carbon disulfide	55	3.0	50		µg/L	5	3/10/2016 10:01:28 PM	R32729
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Chloroethane	ND	0.73	10		µg/L	5	3/10/2016 10:01:28 PM	R32729
Chloroform	ND	0.44	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Chloromethane	ND	1.1	15		µg/L	5	3/10/2016 10:01:28 PM	R32729
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/10/2016 10:01:28 PM	R32729
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Dibromomethane	ND	0.60	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729

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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12A
Project: Pond Sampling
Collection Date: 3/2/2016 4:05:00 PM
Lab ID: 1603233-007
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
2-Hexanone	ND	1.8	50		µg/L	5	3/10/2016 10:01:28 PM	R32729
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/10/2016 10:01:28 PM	R32729
Methylene Chloride	ND	0.31	15		µg/L	5	3/10/2016 10:01:28 PM	R32729
n-Butylbenzene	ND	0.80	15		µg/L	5	3/10/2016 10:01:28 PM	R32729
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Styrene	ND	0.48	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/10/2016 10:01:28 PM	R32729
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/10/2016 10:01:28 PM	R32729
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/10/2016 10:01:28 PM	R32729
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/10/2016 10:01:28 PM	R32729
Surr: 1,2-Dichloroethane-d4	97.4	0	70-130		%Rec	5	3/10/2016 10:01:28 PM	R32729
Surr: 4-Bromofluorobenzene	99.9	0	70-130		%Rec	5	3/10/2016 10:01:28 PM	R32729
Surr: Dibromofluoromethane	119	0	70-130		%Rec	5	3/10/2016 10:01:28 PM	R32729
Surr: Toluene-d8	105	0	70-130		%Rec	5	3/10/2016 10:01:28 PM	R32729
SM2510B: SPECIFIC CONDUCTANCE							Analyst: **JRR**	
Conductivity	23000	0.10	0.10		µmhos/c	10	3/8/2016 7:46:25 PM	R32665
SM4500-H+B: PH							Analyst: **JRR**	

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12A
Project: Pond Sampling
Collection Date: 3/2/2016 4:05:00 PM
Lab ID: 1603233-007
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.95	0.100	1.68	H	pH units	1	3/7/2016 7:45:46 PM	R32629

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12B
Project: Pond Sampling
Collection Date: 3/2/2016 4:25:00 PM
Lab ID: 1603233-008
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: **JRR**	
Fluoride	34	0.45	2.0	*	mg/L	20	3/4/2016 4:06:53 PM	R32615
Chloride	4200	14	250		mg/L	500	3/15/2016 8:45:52 PM	R32822
Bromide	4.2	0.16	0.50		mg/L	5	3/4/2016 3:54:28 PM	R32615
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5		mg/L	5	3/4/2016 3:54:28 PM	R32615
Sulfate	1200	32	250		mg/L	500	3/15/2016 8:45:52 PM	R32822
Nitrate+Nitrite as N	ND	4.2	10		mg/L	50	3/15/2016 5:02:27 PM	R32822
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Barium	0.16	0.0013	0.0020		mg/L	1	3/18/2016 5:45:25 PM	C32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/18/2016 5:45:25 PM	C32891
Calcium	400	1.3	5.0		mg/L	5	3/18/2016 5:47:20 PM	C32891
Chromium	0.0087	0.0018	0.0060		mg/L	1	3/18/2016 5:45:25 PM	C32891
Copper	ND	0.0040	0.0060		mg/L	1	3/18/2016 5:45:25 PM	C32891
Iron	1.1	0.045	0.10	*	mg/L	5	3/18/2016 5:47:20 PM	C32891
Magnesium	110	0.065	5.0		mg/L	5	3/18/2016 5:47:20 PM	C32891
Manganese	0.30	0.00032	0.0020	*	mg/L	1	3/18/2016 5:45:25 PM	C32891
Potassium	130	0.89	5.0		mg/L	5	3/18/2016 5:47:20 PM	C32891
Silver	ND	0.0028	0.0050		mg/L	1	3/18/2016 5:45:25 PM	C32891
Sodium	2800	4.8	50		mg/L	50	3/23/2016 5:08:01 PM	C33001
Zinc	0.016	0.0028	0.010		mg/L	1	3/18/2016 5:45:25 PM	C32891
EPA METHOD 200.7: TOTAL METALS							Analyst: **ELS**	
Barium	0.20	0.0011	0.0020		mg/L	1	3/18/2016 4:23:48 PM	24150
Cadmium	ND	0.00062	0.0020		mg/L	1	3/18/2016 4:23:48 PM	24150
Chromium	0.014	0.0022	0.0060		mg/L	1	3/18/2016 4:23:48 PM	24150
Copper	ND	0.0051	0.0060		mg/L	1	3/18/2016 4:23:48 PM	24150
Iron	3.7	0.036	0.10	*	mg/L	5	3/21/2016 1:46:30 PM	24150
Manganese	0.38	0.0015	0.0020	*	mg/L	1	3/18/2016 4:23:48 PM	24150
Silver	ND	0.0021	0.0050		mg/L	1	3/18/2016 4:23:48 PM	24150
Zinc	0.025	0.0039	0.010		mg/L	1	3/18/2016 4:23:48 PM	24150
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.013	0.00032	0.0050	*	mg/L	5	3/29/2016 5:30:26 PM	B33154
Lead	0.0012	0.00013	0.0025	J	mg/L	5	3/29/2016 5:30:26 PM	B33154
Selenium	0.020	0.0097	0.050	J	mg/L	50	3/31/2016 2:32:51 PM	B33223
Uranium	0.0041	0.000024	0.0025		mg/L	5	3/29/2016 5:30:26 PM	B33154
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Arsenic	0.013	0.0029	0.010	*	mg/L	10	3/23/2016 5:16:54 PM	24250
Lead	0.0035	0.00047	0.0050	J	mg/L	10	3/23/2016 5:16:54 PM	24250
Selenium	0.024	0.0062	0.050	J	mg/L	50	3/23/2016 5:29:22 PM	24250

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12B
Project: Pond Sampling
Collection Date: 3/2/2016 4:25:00 PM
Lab ID: 1603233-008
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
200.8 ICPMS METALS:TOTAL							Analyst: **JLF**	
Uranium	0.0047	0.000049	0.0050	J	mg/L	10	3/23/2016 5:16:54 PM	24250
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	0.000054	0.000053	0.00020	J	mg/L	1	3/10/2016 11:25:46 AM	24156
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Acenaphthene	ND	8.0	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Acenaphthylene	ND	7.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Aniline	ND	9.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Anthracene	ND	6.6	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Azobenzene	ND	9.3	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Benzoic acid	ND	9.8	20		µg/L	1	3/16/2016 10:58:24 AM	24121
Benzyl alcohol	ND	8.0	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/16/2016 10:58:24 AM	24121
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Carbazole	ND	7.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/16/2016 10:58:24 AM	24121
4-Chloroaniline	ND	7.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121
2-Chlorophenol	ND	8.7	10		µg/L	1	3/16/2016 10:58:24 AM	24121
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Chrysene	ND	6.6	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Dibenzofuran	ND	8.6	10		µg/L	1	3/16/2016 10:58:24 AM	24121
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/16/2016 10:58:24 AM	24121
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/16/2016 10:58:24 AM	24121
3,3´-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Diethyl phthalate	ND	8.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121

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Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12B
Project: Pond Sampling
Collection Date: 3/2/2016 4:25:00 PM
Lab ID: 1603233-008
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/16/2016 10:58:24 AM	24121
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/16/2016 10:58:24 AM	24121
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/16/2016 10:58:24 AM	24121
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/16/2016 10:58:24 AM	24121
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/16/2016 10:58:24 AM	24121
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/16/2016 10:58:24 AM	24121
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Fluoranthene	ND	6.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Fluorene	ND	7.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Hexachloroethane	ND	5.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Isophorone	ND	8.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/16/2016 10:58:24 AM	24121
2-Methylphenol	9.7	8.2	10	J	µg/L	1	3/16/2016 10:58:24 AM	24121
3+4-Methylphenol	53	7.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Naphthalene	ND	5.9	10		µg/L	1	3/16/2016 10:58:24 AM	24121
2-Nitroaniline	ND	9.0	10		µg/L	1	3/16/2016 10:58:24 AM	24121
3-Nitroaniline	ND	8.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
4-Nitroaniline	ND	9.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Nitrobenzene	ND	7.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
2-Nitrophenol	ND	7.6	10		µg/L	1	3/16/2016 10:58:24 AM	24121
4-Nitrophenol	ND	6.7	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Pentachlorophenol	ND	7.6	20		µg/L	1	3/16/2016 10:58:24 AM	24121
Phenanthrene	ND	6.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Phenol	55	5.1	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Pyrene	ND	5.5	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Pyridine	ND	6.7	10		µg/L	1	3/16/2016 10:58:24 AM	24121
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/16/2016 10:58:24 AM	24121
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/16/2016 10:58:24 AM	24121
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/16/2016 10:58:24 AM	24121
Surr: 2-Fluorophenol	47.5	0	15-123		%Rec	1	3/16/2016 10:58:24 AM	24121
Surr: Phenol-d5	40.9	0	4.13-124		%Rec	1	3/16/2016 10:58:24 AM	24121

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Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12B
Project: Pond Sampling
Collection Date: 3/2/2016 4:25:00 PM
Lab ID: 1603233-008
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	74.3	0	18.4-134		%Rec	1	3/16/2016 10:58:24 AM	24121
Surr: Nitrobenzene-d5	72.7	0	28.8-134		%Rec	1	3/16/2016 10:58:24 AM	24121
Surr: 2-Fluorobiphenyl	66.0	0	35.9-125		%Rec	1	3/16/2016 10:58:24 AM	24121
Surr: 4-Terphenyl-d14	46.0	0	15-146		%Rec	1	3/16/2016 10:58:24 AM	24121
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	1.2	0.48	5.0	J	µg/L	5	3/10/2016 10:30:18 PM	R32729
Toluene	1.7	0.45	5.0	J	µg/L	5	3/10/2016 10:30:18 PM	R32729
Ethylbenzene	ND	0.56	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Naphthalene	ND	0.42	10		µg/L	5	3/10/2016 10:30:18 PM	R32729
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/10/2016 10:30:18 PM	R32729
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/10/2016 10:30:18 PM	R32729
Acetone	31	4.4	50	J	µg/L	5	3/10/2016 10:30:18 PM	R32729
Bromobenzene	ND	0.40	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Bromoform	ND	0.51	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Bromomethane	38	3.9	15		µg/L	5	3/10/2016 10:30:18 PM	R32729
2-Butanone	3.1	1.6	50	J	µg/L	5	3/10/2016 10:30:18 PM	R32729
Carbon disulfide	63	3.0	50		µg/L	5	3/10/2016 10:30:18 PM	R32729
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Chloroethane	ND	0.73	10		µg/L	5	3/10/2016 10:30:18 PM	R32729
Chloroform	ND	0.44	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Chloromethane	1.6	1.1	15	J	µg/L	5	3/10/2016 10:30:18 PM	R32729
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/10/2016 10:30:18 PM	R32729
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Dibromomethane	ND	0.60	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pond 12B
Project: Pond Sampling
Collection Date: 3/2/2016 4:25:00 PM
Lab ID: 1603233-008
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
2-Hexanone	ND	1.8	50		µg/L	5	3/10/2016 10:30:18 PM	R32729
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/10/2016 10:30:18 PM	R32729
Methylene Chloride	ND	0.31	15		µg/L	5	3/10/2016 10:30:18 PM	R32729
n-Butylbenzene	ND	0.80	15		µg/L	5	3/10/2016 10:30:18 PM	R32729
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Styrene	ND	0.48	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/10/2016 10:30:18 PM	R32729
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/10/2016 10:30:18 PM	R32729
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/10/2016 10:30:18 PM	R32729
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/10/2016 10:30:18 PM	R32729
Surr: 1,2-Dichloroethane-d4	93.6	0	70-130		%Rec	5	3/10/2016 10:30:18 PM	R32729
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	5	3/10/2016 10:30:18 PM	R32729
Surr: Dibromofluoromethane	112	0	70-130		%Rec	5	3/10/2016 10:30:18 PM	R32729
Surr: Toluene-d8	105	0	70-130		%Rec	5	3/10/2016 10:30:18 PM	R32729
SM2510B: SPECIFIC CONDUCTANCE							Analyst: **JRR**	
Conductivity	18000	0.10	0.10		µmhos/c	10	3/8/2016 7:50:33 PM	R32665
SM4500-H+B: PH							Analyst: **JRR**	

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Hall Environmental Analysis Laboratory, Inc.

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Collection Date: 3/2/2016 4:25:00 PM
Lab ID: 1603233-008
Matrix: AQUEOUS
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.86	0.100	1.68	H	pH units	1	3/7/2016 7:49:57 PM	R32629

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Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: Pond Sampling
Collection Date:
Lab ID: 1603233-009
Matrix: TRIP BLANK
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
Benzene	ND	0.48	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Toluene	ND	0.45	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Ethylbenzene	ND	0.56	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Methyl tert-butyl ether (MTBE)	ND	1.1	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,2,4-Trimethylbenzene	ND	0.52	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,3,5-Trimethylbenzene	ND	0.58	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,2-Dichloroethane (EDC)	ND	0.26	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Naphthalene	ND	0.42	10		µg/L	5	3/10/2016 10:59:03 PM	R32729
1-Methylnaphthalene	ND	1.0	20		µg/L	5	3/10/2016 10:59:03 PM	R32729
2-Methylnaphthalene	ND	0.79	20		µg/L	5	3/10/2016 10:59:03 PM	R32729
Acetone	ND	4.4	50		µg/L	5	3/10/2016 10:59:03 PM	R32729
Bromobenzene	ND	0.40	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Bromoform	ND	0.51	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Bromomethane	16	3.9	15		µg/L	5	3/10/2016 10:59:03 PM	R32729
2-Butanone	ND	1.6	50		µg/L	5	3/10/2016 10:59:03 PM	R32729
Carbon disulfide	ND	3.0	50		µg/L	5	3/10/2016 10:59:03 PM	R32729
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Chloroethane	ND	0.73	10		µg/L	5	3/10/2016 10:59:03 PM	R32729
Chloroform	ND	0.44	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Chloromethane	ND	1.1	15		µg/L	5	3/10/2016 10:59:03 PM	R32729
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
cis-1,2-DCE	ND	0.62	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/10/2016 10:59:03 PM	R32729
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Dibromomethane	ND	0.60	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,1-Dichloroethane	ND	0.54	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,1-Dichloroethene	ND	0.38	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/10/2016 10:59:03 PM	R32729

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: Pond Sampling
Collection Date:
Lab ID: 1603233-009
Matrix: TRIP BLANK
Received Date: 3/3/2016 4:36:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: **AG**	
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
2-Hexanone	ND	1.8	50		µg/L	5	3/10/2016 10:59:03 PM	R32729
Isopropylbenzene	ND	0.49	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
4-Isopropyltoluene	ND	0.70	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/10/2016 10:59:03 PM	R32729
Methylene Chloride	ND	0.31	15		µg/L	5	3/10/2016 10:59:03 PM	R32729
n-Butylbenzene	ND	0.80	15		µg/L	5	3/10/2016 10:59:03 PM	R32729
n-Propylbenzene	ND	0.66	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
sec-Butylbenzene	ND	0.54	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Styrene	ND	0.48	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/10/2016 10:59:03 PM	R32729
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/10/2016 10:59:03 PM	R32729
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/10/2016 10:59:03 PM	R32729
Xylenes, Total	ND	1.6	7.5		µg/L	5	3/10/2016 10:59:03 PM	R32729
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	5	3/10/2016 10:59:03 PM	R32729
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	5	3/10/2016 10:59:03 PM	R32729
Surr: Dibromofluoromethane	121	0	70-130		%Rec	5	3/10/2016 10:59:03 PM	R32729
Surr: Toluene-d8	103	0	70-130		%Rec	5	3/10/2016 10:59:03 PM	R32729

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **MB-C**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008301** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008302** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.1	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Calcium	50	1.0	50.00	0	99.6	85	115			
Chromium	0.49	0.0060	0.5000	0	97.0	85	115			
Copper	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.49	0.020	0.5000	0	98.4	85	115			
Magnesium	51	1.0	50.00	0	102	85	115			
Manganese	0.49	0.0020	0.5000	0	97.8	85	115			
Potassium	50	1.0	50.00	0	99.4	85	115			
Zinc	0.48	0.010	0.5000	0	96.3	85	115			

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008303** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0021	0.0020	0.002000	0	103	50	150			
Cadmium	0.0020	0.0020	0.002000	0	99.5	50	150			J
Calcium	0.50	1.0	0.5000	0	99.4	50	150			J
Chromium	0.0053	0.0060	0.006000	0	87.8	50	150			J
Copper	0.0068	0.0060	0.006000	0	114	50	150			
Iron	0.021	0.020	0.02000	0	103	50	150			
Magnesium	0.51	1.0	0.5000	0	102	50	150			J

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008303** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	0.0021	0.0020	0.002000	0	104	50	150			
Potassium	0.58	1.0	0.5000	0	115	50	150			J
Silver	0.0038	0.0050	0.005000	0	76.2	50	150			J
Zinc	0.0050	0.010	0.005000	0	100	50	150			J

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C32891**	RunNo: **32891**
Prep Date:	Analysis Date: **3/18/2016**	SeqNo: **1008305** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	101	85	115			

Sample ID **MB-C**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **C33001**	RunNo: **33001**
Prep Date:	Analysis Date: **3/23/2016**	SeqNo: **1012812** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID **LCS-C**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **C33001**	RunNo: **33001**
Prep Date:	Analysis Date: **3/23/2016**	SeqNo: **1012813** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	50	1.0	50.00	0	99.1	85	115			
Magnesium	50	1.0	50.00	0	101	85	115			
Potassium	50	1.0	50.00	0	99.4	85	115			
Sodium	50	1.0	50.00	0	99.6	85	115			

Sample ID **LLLCS-C**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **C33001**	RunNo: **33001**
Prep Date:	Analysis Date: **3/23/2016**	SeqNo: **1012814** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.52	1.0	0.5000	0	104	50	150			J
Magnesium	0.54	1.0	0.5000	0	109	50	150			J
Potassium	0.44	1.0	0.5000	0	87.5	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID	**LLLCS-C**	SampType:	**LCSLL**	TestCode:	**EPA Method 200.7: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**C33001**	RunNo:	**33001**					
Prep Date:		Analysis Date:	**3/23/2016**	SeqNo:	**1012814**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	0.57	1.0	0.5000	0	115	50	150			J

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **MB-24150**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **24150**	RunNo: **32831**
Prep Date: **3/9/2016**	Analysis Date: **3/16/2016**	SeqNo: **1006645** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-24150**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **24150**	RunNo: **32831**
Prep Date: **3/9/2016**	Analysis Date: **3/16/2016**	SeqNo: **1006646** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.4	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	98.4	85	115			
Iron	0.49	0.020	0.5000	0	97.3	85	115			
Manganese	0.49	0.0020	0.5000	0	97.9	85	115			
Silver	0.094	0.0050	0.1000	0	93.7	85	115			
Zinc	0.50	0.010	0.5000	0	99.3	85	115			

Sample ID **LLLCS-24150**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **24150**	RunNo: **32831**
Prep Date: **3/9/2016**	Analysis Date: **3/16/2016**	SeqNo: **1006647** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0016	0.0020	0.002000	0	80.5	50	150			J
Cadmium	0.0019	0.0020	0.002000	0	96.0	50	150			J
Chromium	0.0074	0.0060	0.006000	0	123	50	150			
Iron	0.022	0.020	0.02000	0	110	50	150			
Manganese	0.0019	0.0020	0.002000	0	93.0	50	150			J
Silver	0.0043	0.0050	0.005000	0	86.2	50	150			J
Zinc	0.0061	0.010	0.005000	0	122	50	150			J

Sample ID **MB-24150**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **24150**	RunNo: **32891**
Prep Date: **3/9/2016**	Analysis Date: **3/18/2016**	SeqNo: **1008286** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								

Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID	**LCS-24150**	SampType:	**LCS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**LCSW**	Batch ID:	**24150**		RunNo:	**32891**				
Prep Date:	**3/9/2016**	Analysis Date:	**3/18/2016**		SeqNo:	**1008287**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.48	0.0060	0.5000	0	96.8	85	115			

Sample ID	**LLLCS-24150**	SampType:	**LCSLL**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**BatchQC**	Batch ID:	**24150**		RunNo:	**32891**				
Prep Date:	**3/9/2016**	Analysis Date:	**3/18/2016**		SeqNo:	**1008288**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.0058	0.0060	0.006000	0	97.3	50	150			J

Sample ID	**1603233-001EMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**Pond 3**	Batch ID:	**24150**		RunNo:	**32891**				
Prep Date:	**3/9/2016**	Analysis Date:	**3/18/2016**		SeqNo:	**1008839**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.66	0.0020	0.5000	0.1798	95.5	70	130			
Cadmium	0.52	0.0020	0.5000	0	104	70	130			
Chromium	0.48	0.0060	0.5000	0.009460	94.5	70	130			
Copper	0.60	0.0060	0.5000	0	121	70	130			
Manganese	0.85	0.0020	0.5000	0.3762	95.4	70	130			
Zinc	0.46	0.010	0.5000	0.01494	89.0	70	130			

Sample ID	**1603233-001EMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**Pond 3**	Batch ID:	**24150**		RunNo:	**32891**				
Prep Date:	**3/9/2016**	Analysis Date:	**3/18/2016**		SeqNo:	**1008840**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.0020	0.5000	0.1798	94.6	70	130	0.744	20	
Cadmium	0.52	0.0020	0.5000	0	104	70	130	0.470	20	
Chromium	0.48	0.0060	0.5000	0.009460	94.1	70	130	0.326	20	
Copper	0.61	0.0060	0.5000	0	121	70	130	0.319	20	
Manganese	0.84	0.0020	0.5000	0.3762	93.7	70	130	0.966	20	
Zinc	0.45	0.010	0.5000	0.01494	87.9	70	130	1.19	20	

Sample ID	**1603233-002EMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**Pond 2**	Batch ID:	**24150**		RunNo:	**32891**				
Prep Date:	**3/9/2016**	Analysis Date:	**3/18/2016**		SeqNo:	**1008845**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.61	0.0020	0.5000	0.1349	95.1	70	130			
Cadmium	0.51	0.0020	0.5000	0	103	70	130			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID	**1603233-002EMS**	SampType: **MS**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**Pond 2**	Batch ID: **24150**		RunNo: **32891**					
Prep Date:	**3/9/2016**	Analysis Date: **3/18/2016**		SeqNo: **1008845**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.47	0.0060	0.5000	0.007250	93.2	70	130			
Copper	0.61	0.0060	0.5000	0	123	70	130			
Manganese	0.69	0.0020	0.5000	0.2160	94.3	70	130			
Silver	0.12	0.0050	0.1000	0	118	70	130			
Zinc	0.44	0.010	0.5000	0.01446	85.8	70	130			

Sample ID	**1603233-002EMSD**	SampType: **MSD**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**Pond 2**	Batch ID: **24150**		RunNo: **32891**					
Prep Date:	**3/9/2016**	Analysis Date: **3/18/2016**		SeqNo: **1008846**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.60	0.0020	0.5000	0.1349	93.4	70	130	1.41	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	0.890	20	
Chromium	0.47	0.0060	0.5000	0.007250	92.6	70	130	0.666	20	
Copper	0.61	0.0060	0.5000	0	121	70	130	1.34	20	
Manganese	0.68	0.0020	0.5000	0.2160	93.5	70	130	0.550	20	
Silver	0.11	0.0050	0.1000	0	115	70	130	2.68	20	
Zinc	0.44	0.010	0.5000	0.01446	84.5	70	130	1.45	20	

Sample ID	**1603233-001EMS**	SampType: **MS**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**Pond 3**	Batch ID: **24150**		RunNo: **32922**					
Prep Date:	**3/9/2016**	Analysis Date: **3/21/2016**		SeqNo: **1010439**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.11	0.0050	0.1000	0	112	70	130			

Sample ID	**1603233-001EMSD**	SampType: **MSD**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**Pond 3**	Batch ID: **24150**		RunNo: **32922**					
Prep Date:	**3/9/2016**	Analysis Date: **3/21/2016**		SeqNo: **1010440**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.11	0.0050	0.1000	0	109	70	130	2.05	20	

Sample ID	**1603233-001EMS**	SampType: **MS**		TestCode: **EPA Method 200.7: Total Metals**					
Client ID:	**Pond 3**	Batch ID: **24150**		RunNo: **32922**					
Prep Date:	**3/9/2016**	Analysis Date: **3/21/2016**		SeqNo: **1010446**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	1.9	0.10	0.5000	1.362	117	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID	**1603233-001EMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**Pond 3**	Batch ID:	**24150**		RunNo:	**32922**				
Prep Date:	**3/9/2016**	Analysis Date:	**3/21/2016**		SeqNo:	**1010447**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	1.9	0.10	0.5000	1.362	110	70	130	1.78	20	

Sample ID	**1603233-002EMS**	SampType:	**MS**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**Pond 2**	Batch ID:	**24150**		RunNo:	**32922**				
Prep Date:	**3/9/2016**	Analysis Date:	**3/21/2016**		SeqNo:	**1010449**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	1.5	0.10	0.5000	0.8510	123	70	130			

Sample ID	**1603233-002EMSD**	SampType:	**MSD**		TestCode:	**EPA Method 200.7: Total Metals**				
Client ID:	**Pond 2**	Batch ID:	**24150**		RunNo:	**32922**				
Prep Date:	**3/9/2016**	Analysis Date:	**3/21/2016**		SeqNo:	**1010450**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	1.4	0.10	0.5000	0.8510	109	70	130	5.10	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID	**1603233-001DMSDL**	SampType:	**MSD**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**Pond 3**	Batch ID:	**B33120**		RunNo:	**33120**				
Prep Date:		Analysis Date:	**3/28/2016**		SeqNo:	**1016733**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.01085	98.1	70	130	1.59	20	
Lead	0.068	0.0025	0.06250	0.0005427	109	70	130	1.25	20	
Uranium	0.081	0.0025	0.06250	0.003722	123	70	130	1.32	20	

Sample ID	**1603233-001DMSLL**	SampType:	**MS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**Pond 3**	Batch ID:	**B33120**		RunNo:	**33120**				
Prep Date:		Analysis Date:	**3/28/2016**		SeqNo:	**1016734**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.01085	96.4	70	130			
Lead	0.068	0.0025	0.06250	0.0005427	107	70	130			
Uranium	0.080	0.0025	0.06250	0.003722	121	70	130			

Sample ID	**1603233-004DMSLL**	SampType:	**MS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**Pond 4**	Batch ID:	**B33120**		RunNo:	**33120**				
Prep Date:		Analysis Date:	**3/28/2016**		SeqNo:	**1016741**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.01901	91.6	70	130			

Sample ID	**LCS**	SampType:	**LCS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**LCSW**	Batch ID:	**B33120**		RunNo:	**33120**				
Prep Date:		Analysis Date:	**3/28/2016**		SeqNo:	**1016767**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.2	85	115			
Lead	0.012	0.00050	0.01250	0	98.4	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			
Uranium	0.012	0.00050	0.01250	0	95.6	85	115			

Sample ID	**LLLCS**	SampType:	**LCSLL**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**BatchQC**	Batch ID:	**B33120**		RunNo:	**33120**				
Prep Date:		Analysis Date:	**3/28/2016**		SeqNo:	**1016769**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	104	50	150			
Lead	0.00052	0.00050	0.0005000	0	104	50	150			
Selenium	0.0011	0.0010	0.001000	0	108	50	150			
Uranium	0.00049	0.00050	0.0005000	0	98.4	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33120**	RunNo: **33120**
Prep Date:	Analysis Date: **3/28/2016**	SeqNo: **1016771** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	0.000011	0.00050								J

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33154**	RunNo: **33154**
Prep Date:	Analysis Date: **3/29/2016**	SeqNo: **1018089** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.7	85	115			
Lead	0.012	0.00050	0.01250	0	95.4	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.011	0.00050	0.01250	0	91.8	85	115			

Sample ID **LLLCS**	SampType: **LCSLL**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **B33154**	RunNo: **33154**
Prep Date:	Analysis Date: **3/29/2016**	SeqNo: **1018090** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00098	0.0010	0.001000	0	98.0	50	150			J
Lead	0.00050	0.00050	0.0005000	0	100	50	150			
Selenium	0.00095	0.0010	0.001000	0	94.9	50	150			J
Uranium	0.00046	0.00050	0.0005000	0	91.1	50	150			J

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **B33154**	RunNo: **33154**
Prep Date:	Analysis Date: **3/29/2016**	SeqNo: **1018091** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **B33223**	RunNo: **33223**
Prep Date:	Analysis Date: **3/31/2016**	SeqNo: **1020326** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID	**LCS**	SampType:	**LCS**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**LCSW**	Batch ID:	**B33223**		RunNo:	**33223**				
Prep Date:		Analysis Date:	**3/31/2016**		SeqNo:	**1020326**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	**LLLCS**	SampType:	**LCSLL**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**BatchQC**	Batch ID:	**B33223**		RunNo:	**33223**				
Prep Date:		Analysis Date:	**3/31/2016**		SeqNo:	**1020327**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.0011	0.0010	0.001000	0	109	50	150			

Sample ID	**MB**	SampType:	**MBLK**		TestCode:	**EPA 200.8: Dissolved Metals**				
Client ID:	**PBW**	Batch ID:	**B33223**		RunNo:	**33223**				
Prep Date:		Analysis Date:	**3/31/2016**		SeqNo:	**1020328**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID	**MB-24250**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**24250**	RunNo:	**32858**					
Prep Date:	**3/15/2016**	Analysis Date:	**3/17/2016**	SeqNo:	**1007536**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	**MSLCS-24250**	SampType:	**LCS**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**LCSW**	Batch ID:	**24250**	RunNo:	**32858**					
Prep Date:	**3/15/2016**	Analysis Date:	**3/17/2016**	SeqNo:	**1007538**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0	107	85	115			
Lead	0.013	0.00050	0.01250	0	105	85	115			
Selenium	0.027	0.0010	0.02500	0	108	85	115			
Uranium	0.013	0.00050	0.01250	0	105	85	115			

Sample ID	**MSLLLCS-24250**	SampType:	**LCSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID:	**24250**	RunNo:	**32858**					
Prep Date:	**3/15/2016**	Analysis Date:	**3/17/2016**	SeqNo:	**1007539**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0012	0.0010	0.001000	0	117	50	150			
Lead	0.00052	0.00050	0.0005000	0	104	50	150			
Selenium	0.0012	0.0010	0.001000	0	116	50	150			
Uranium	0.00052	0.00050	0.0005000	0	104	50	150			

Sample ID	**1603233-002EMSLL**	SampType:	**MSLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**Pond 2**	Batch ID:	**24250**	RunNo:	**33009**					
Prep Date:	**3/15/2016**	Analysis Date:	**3/23/2016**	SeqNo:	**1012706**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.036	0.0050	0.02500	0.01086	99.6	70	130			

Sample ID	**1603233-002EMSDL**	SampType:	**MSDLL**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**Pond 2**	Batch ID:	**24250**	RunNo:	**33009**					
Prep Date:	**3/15/2016**	Analysis Date:	**3/23/2016**	SeqNo:	**1012707**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.036	0.0050	0.02500	0.01086	99.1	70	130	0.340	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID	**MB-24156**	SampType:	**mblk**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**24156**	RunNo:	**32702**					
Prep Date:	**3/9/2016**	Analysis Date:	**3/10/2016**	SeqNo:	**1000942**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000079	0.00020								J

Sample ID	**LCS-24156**	SampType:	**lcs**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**24156**	RunNo:	**32702**					
Prep Date:	**3/9/2016**	Analysis Date:	**3/10/2016**	SeqNo:	**1000945**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0054	0.00020	0.005000	0	109	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32615**	RunNo: **32615**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997836** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R32615**	RunNo: **32615**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997837** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Bromide	2.5	0.10	2.500	0	100	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.8	90	110			
Sulfate	9.9	0.50	10.00	0	98.8	90	110			

Sample ID **1603233-001CMS**	SampType: **ms**	TestCode: **EPA Method 300.0: Anions**
Client ID: **Pond 3**	Batch ID: **R32615**	RunNo: **32615**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997839** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P	22	2.5	25.00	0	86.2	74.2	107			

Sample ID **1603233-001CMSD**	SampType: **msd**	TestCode: **EPA Method 300.0: Anions**
Client ID: **Pond 3**	Batch ID: **R32615**	RunNo: **32615**
Prep Date:	Analysis Date: **3/4/2016**	SeqNo: **997840** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P	22	2.5	25.00	0	86.6	74.2	107	0.426	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R32663**	RunNo: **32663**
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999366** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R32663**	RunNo: **32663**							
Prep Date:	Analysis Date: **3/8/2016**	SeqNo: **999367**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R32822**	RunNo: **32822**							
Prep Date:	Analysis Date: **3/15/2016**	SeqNo: **1005748**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R32822**	RunNo: **32822**							
Prep Date:	Analysis Date: **3/15/2016**	SeqNo: **1005749**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.7	0.50	5.000	0	93.7	90	110			
Bromide	2.4	0.10	2.500	0	97.3	90	110			
Sulfate	9.6	0.50	10.00	0	96.4	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.9	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **A32854**	RunNo: **32854**							
Prep Date:	Analysis Date: **3/17/2016**	SeqNo: **1007070**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Bromide	ND	0.10								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **A32854**	RunNo: **32854**							
Prep Date:	Analysis Date: **3/17/2016**	SeqNo: **1007071**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.5	90	110			
Bromide	2.5	0.10	2.500	0	99.2	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **A32854**	RunNo: **32854**
Prep Date:	Analysis Date: **3/17/2016**	SeqNo: **1007071** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	100	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R32729**	RunNo: **32729**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1001574** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	109	70	130			
Toluene	20	1.0	20.00	0	100	70	130			
Chlorobenzene	21	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	107	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			
Surr: Toluene-d8	9.7		10.00		97.2	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32729**	RunNo: **32729**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1001575** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	0.15	1.0								J
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	0.30	4.0								J
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	0.41	10								J
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32729**	RunNo: **32729**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1001575** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	0.54	3.0								J
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R32729**	RunNo: **32729**
Prep Date:	Analysis Date: **3/10/2016**	SeqNo: **1001575** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.0	70	130			
Surr: Dibromofluoromethane	12		10.00		120	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Sample ID **1603233-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **Pond 3**	Batch ID: **R32729**	RunNo: **32729**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1001578** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	120	5.0	100.0	0	115	70	130			
Toluene	110	5.0	100.0	0	107	70	130			
Chlorobenzene	110	5.0	100.0	0	108	70	130			
1,1-Dichloroethene	110	5.0	100.0	0	108	70	130			
Trichloroethene (TCE)	100	5.0	100.0	0	101	70	130			
Surr: 1,2-Dichloroethane-d4	49		50.00		97.5	70	130			
Surr: 4-Bromofluorobenzene	48		50.00		95.6	70	130			
Surr: Dibromofluoromethane	55		50.00		111	70	130			
Surr: Toluene-d8	49		50.00		97.6	70	130			

Sample ID **1603233-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **Pond 3**	Batch ID: **R32729**	RunNo: **32729**
Prep Date:	Analysis Date: **3/11/2016**	SeqNo: **1001579** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	110	5.0	100.0	0	106	70	130	8.82	20	
Toluene	110	5.0	100.0	0	109	70	130	1.65	20	
Chlorobenzene	100	5.0	100.0	0	105	70	130	2.88	20	
1,1-Dichloroethene	100	5.0	100.0	0	103	70	130	5.51	20	
Trichloroethene (TCE)	100	5.0	100.0	0	104	70	130	2.77	20	
Surr: 1,2-Dichloroethane-d4	53		50.00		107	70	130	0	0	
Surr: 4-Bromofluorobenzene	47		50.00		94.8	70	130	0	0	
Surr: Dibromofluoromethane	58		50.00		117	70	130	0	0	
Surr: Toluene-d8	56		50.00		111	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **mb-24121**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003941** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3´-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **mb-24121**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003941** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	250		200.0		123	4.63	113			S
Surr: Phenol-d5	260		200.0		131	4.13	124			S
Surr: 2,4,6-Tribromophenol	230		200.0		116	5.14	132			
Surr: Nitrobenzene-d5	130		100.0		128	9.13	140			
Surr: 2-Fluorobiphenyl	120		100.0		118	10.8	132			
Surr: 4-Terphenyl-d14	130		100.0		131	12.9	107			S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1603233**

15-Apr-16

Client: Western Refining Southwest, Gallup

Project: Pond Sampling

Sample ID **lcs-24121**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **24121**	RunNo: **32760**
Prep Date: **3/8/2016**	Analysis Date: **3/13/2016**	SeqNo: **1003943** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	100	10	100.0	0	104	40.2	107			
4-Chloro-3-methylphenol	250	10	200.0	0	125	48.2	107			S
2-Chlorophenol	220	10	200.0	0	110	42.5	106			S
1,4-Dichlorobenzene	110	10	100.0	0	109	31.6	111			
2,4-Dinitrotoluene	78	10	100.0	0	78.1	33.6	86.5			
N-Nitrosodi-n-propylamine	110	10	100.0	0	108	44	106			S
4-Nitrophenol	180	10	200.0	0	88.4	25.5	109			
Pentachlorophenol	170	20	200.0	0	84.6	38.8	97.8			
Phenol	210	10	200.0	0	107	22.7	116			
Pyrene	100	10	100.0	0	103	29.3	138			
1,2,4-Trichlorobenzene	110	10	100.0	0	115	35.3	123			
Surr: 2-Fluorophenol	180		200.0		88.4	4.63	113			
Surr: Phenol-d5	200		200.0		101	4.13	124			
Surr: 2,4,6-Tribromophenol	230		200.0		113	5.14	132			
Surr: Nitrobenzene-d5	96		100.0		96.0	9.13	140			
Surr: 2-Fluorobiphenyl	90		100.0		90.5	10.8	132			
Surr: 4-Terphenyl-d14	99		100.0		99.4	12.9	107			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1603233 RcptNo: 1

Received by/date: AG 03/03/16

Logged By: Lindsay Mangin 3/3/2016 4:36:00 PM

Completed By: Lindsay Mangin 3/4/2016 8:33:38 AM

Reviewed By: 03/04/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 2 4 (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? NO
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: ____ Date: ____

By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: ____

Client Instructions: ____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC

GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING ROAD

GALLUP, NM 87301

Phone #: 505-722-0231

email or Fax#: CHERYL.JOHNSON@WNR.COM

QA/QC Package: Standard ☒ Level 4 (Full Validation)

Accreditation: NELAP ☐ Other

EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: POND SAMPLING

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1603233	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	GENCHEM - PH, SPECIFIC CONDUCTANCE, ALKALINITY, ANIONS	WQCC METALS (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
2/16	1445	WATER	POND 3	40 ML VOA-3	HCL	-001										✓						
				1 LITER AMBER-1	NEAT												✓					
				125 ML PLASTIC-1	H_2SO_4													✓				
				125 ML PLASTIC-1	HNO_3													✓	✓			
				500 ML PLASTIC-1	HNO_3														✓			
				500 ML PLASTIC-1	NEAT														✓			
/16	1500	WATER	POND 2	40 ML VOA-3	HCL	-002										✓						
				1 LITER AMBER-1	NEAT												✓					
				125 ML PLASTIC-1	H_2SO_4													✓				
				125 ML PLASTIC-1	HNO_3													✓	✓			
				500 ML PLASTIC-1	HNO_3														✓			
				500 ML PLASTIC	NEAT														✓			

Analysis Request

Date: 3/3/16 Time: 0729 Relinquished by:

Received by: Date: 3/3/16 Time: 805

Date: 3/3/16 Time: 1636 Relinquished by:

Received by: A M Gallegos Date: 03/03/16 Time: 1636

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

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Tel. 505-345-3975 Fax 505-345-4107

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231
email or Fax#: CHERYL.JOHNSON@WNR.COM
QA/QC Package: Standard ☒ Level 4 (Full Validation)
Accreditation: NELAP ☐ Other
EDD (Type): EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: POND SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: ☑ Yes ☐ No
Sample Temperature: 1.0

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
2/16	1408	WATER	POND 5	40 ML VOA-3	HCL	1603233 -003
				1 LITER AMBER-2	NEAT	
				125 ML PLASTIC-1	H_2SO_4	
				125 ML PLASTIC-1	HNO_3	
				500 ML PLASTIC-1	HNO_3	
				500 ML PLASTIC-1	NEAT	
2/16	1425	WATER	POND 4	40 ML VOA-3	HCL	-004
				1 LITER AMBER-2	NEAT	
				125 ML PLASTIC-1	H_2SO_4	
				~~500~~ 125 ML PLASTIC-1	HNO_3	
				500 ML PLASTIC-1	HNO_3	
				500 ML PLASTIC-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	GENCHEM - pH, SPECIFIC CONDUCTANCE, CATIONS/ANIONS	WQCC METALS (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
									✓						
										✓					
											✓				
											✓	✓			
												✓			
												✓			
									✓						
										✓					
											✓				
											✓	✓			
												✓			
												✓			

Date	Time	Relinquished by:	Received by:	Date	Time
2/16	0729			3/3/16	805
2/16	1636			03/03/16	1636

Remarks:

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Accreditation: [X] NELAP [ ] Other

EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush

Project Name: POND SAMPLING

Project #:

Project Manager: CHERYL JOHNSON

Sampler: TRACY PAYNE

On Ice: [X] Yes [ ] No

Sample Temperature: 1.0

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Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1603233	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	GENCHEM - PH, SPECIFIC CONDUCTANCE, CATIONS/ANIONS	WQCC METALS (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
3/16	1525	WATER	POND 7	40 mL VOA-3	HCL	-005										✓						
				1 LITER AMBER-1	NEAT												✓					
				125 mL PLASTIC-1	H_2SO_4													✓				
				125 mL PLASTIC-1	HNO_3													✓	✓			
				500 mL PLASTIC-1	HNO_3														✓			
				500 mL PLASTIC-1	NEAT														✓			
3/16	1545	WATER	POND 11	40 mL VOA-3	HCL	-006										✓						
				1 LITER AMBER-1	NEAT												✓					
				125 mL PLASTIC-1	H_2SO_4													✓				
				125 mL PLASTIC-1	HNO_3													✓	✓			
				500 mL PLASTIC-1	HNO_3														✓			
				500 mL PLASTIC-1	NEAT														✓			

Date	Time	Relinquished by:	Received by:	Date	Time
3/3/16	0729			3/3/14	805
3/3/16	1636			03/03/14	1636

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QA/QC Package: Standard [X] Level 4 (Full Validation)
Accreditation: [X] NELAP [ ] Other
EDD (Type) EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: POND SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

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Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
3/2/16	1605	WATER	POND 12A	40 ML VOA-3	HCL	1603733-007
				1 LITER AMBER-1	NEAT	
				125 ML PLASTIC-1	H_2SO_4	
				125 ML PLASTIC-1	HNO_3	
				500 ML PLASTIC-1	HNO_3	
				500 ML PLASTIC-1	NEAT	
3/2/16	1625	WATER	POND 12B	40 ML VOA-3	HCL	-008
				1 LITER AMBER-1	NEAT	
				125 ML PLASTIC-1	H_2SO_4	
				125 ML PLASTIC-1	HNO_3	
				500 ML PLASTIC-1	HNO_3	
				500 ML PLASTIC-1	NEAT	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	GENCHEM - pH, SPECIFIC CONDUCTANCE, CATIONS/ANIONS	WQCC METALS (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
									✓	✓	✓	✓			
												✓			
												✓	✓		
													✓		
													✓		
									✓	✓					
												✓			
												✓	✓		
													✓		
													✓		

Date	Time	Relinquished by:	Received by:	Date	Time
3/2/16	0729			3/3/16	805
3/2/16	1636			03/03/16	1036

Remarks:

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EDD (Type): EXCEL

Turn-Around Time: [X] Standard [ ] Rush
Project Name: POND SAMPLING
Project #:
Project Manager: CHERYL JOHNSON
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 1.0

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Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
—	—	WATER	TRIP BLANK	40 mL VOA-4	HCL	1603233-009

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
									✓						

Date	Time	Relinquished by:	Received by:	Date	Time
3/2/16	0729			3/2/16	800
			A Gallegos	03/03/16	1036

Remarks:

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