AP - 111

AGWMR

2010

Western Refining
GALLUP

WNR LISTED NYSE

Certified Return Receipt: #7010 1670 0001 3141 0170

July 12, 2012

Mr. John Kieling, Acting Chief
NMED - Hazardous Waste Bureau
2905 Rodeo Park Drive East, Bldg 1
Santa Fe, NM 87505-6303

RE: Notice of Disapproval – Annual Ground Water Monitoring Report;
Gallup Refinery 2010
Western Refining Company, Southwest, Inc., Gallup Refinery
HWB-WRG-11-004
EPA ID #NMD000333211

Dear Mr. Kieling:

Western Refining Southwest, Gallup Refinery is pleased to submit the following responses to the above referenced matter along with a revised report.

Comment 1

The Permittee did not incorporate direction included in NMED's comments regarding the previous year's report and continues to submit Ground Water Monitoring Reports that are difficult to review. There continues to be inconsistencies between the data presented in the tables and data included in the text. There is a lack of information in several sections of the Report and problems with the figures. The Permittee must submit a revised Report with all revisions required by this letter as applicable. All changes required by this NOD must be applied to all future ground water monitoring reports and work plans as applicable. Further noncompliance with NMED's direction may result in an enforcement action.

Response: *Gallup Refinery will continue to make every effort to present the Annual Ground Water Report in a clear and concise document incorporating NMED's comments from previous years. Included in this Report are attachments that were either missing or required to be revised.*

Comment 2

In the Executive Summary, paragraph 1, page 3, the Permittee states, "[m]onitoring activities conducted for 2010 followed the guidelines from the Facility Wide Ground Water Monitoring Plan [FWGWMP] (August 25, 2010)." The Permittee did not use the approved FWGWMP for all of the monitoring and sampling activities in 2010. Monitoring and sampling activities conducted for 2010 followed the guidelines from the 2009 FWGWMP for the first and second

quarters while the third and fourth quarter monitoring and sampling activities were conducted with the 2010 FWGWMP (approved with modifications on August 25, 2010). Revise the Report to reflect that the 2010 field work was based on the two work plans at different times of the year.

Response: *Western disagrees with the following statement, "Monitoring and sampling activities conducted for 2010 followed the guidelines from the 2009 FWGWMP for the first and second quarters while the third and fourth quarter monitoring and sampling activities were conducted with the 2010 FWGWMP (Approved with modifications on August 25, 2010)." Western followed the sampling guidelines from the unapproved 2010 FWGWMP for the first quarter of 2010 and followed the 2009 FWGWMP for the second and third quarters of 2010 when it was discovered the 2010 FWGWMP had not yet been approved. Fourth quarter sampling and field activities were conducted following the approved 2010 FWGWMP (August 25, 2010). Changes were made as requested in the Executive Summary, paragraph 1, page 3 to reflect that the 2010 field work was based on two work plans at different times of the year.*

Comment 3

In the Executive Summary, *East Side Ground Water*, page 3, the Permittee states, "[i]n three wells, OW-14, OW-29, and OW-30, [methyl tertiary butyl ether (MTBE)] is in the range of 0.12 ppm to 1.6 ppm and at levels above the EPA [Regional Screening Level (RSL)] standard of 0.012 ppm. In OW-13 trace levels of MTBE was detected in the first quarter of 2010 ranging from 0.0023 ppm first quarter to 0.0048 ppm in the fourth quarter of 2010 which is below the EPA RSL standard of 0.012 ppm." In the revised Report, define all acronyms when introducing them for the first time or include a more extensive list of acronyms that defines each acronym used in the revised Report. In addition, all reported data values must include the appropriate units of measure.

Response: *The List of Acronyms has been updated and units of measure have been corrected.*

Comment 4

In the Executive Summary, page 3, the title, *West Side Ground Water*, must be provided on the same page with its' corresponding text. If the title of a document section is the last line on the previous page, the Permittee must move the title of that section to the same page as the associated text in future documents.

Response: *Corrections have been made as requested*

Comment 5

In the Executive Summary, *West Side Ground Water*, paragraph 2, page 4, the Permittee states, "PW-3 will continue to be sampled on an annual basis as directed in the Facility Wide Ground Water Report dated August 25, 2010." This reference is inaccurate; the Permittee is required to sample PW-3 by NMED's Comment 12 of the May 16, 2011 NOD (May 2011 NOD) for the Annual Ground Water Monitoring Report: Gallup Refinery 2009. Revise the Report to accurately cite the correct document.

Response: *Citation has been added as requested.*

Comment 6

In the Table of Contents, page 5, the page numbers for the data tables from pages 103 through 160 are incorrect. The Permittee hand corrected pages 101 through 103 (with the following page corrected as "103a") and continued through page 108. In addition there are two pages with the page number 108. Revise the Report to provide correct page numbers. In future documents, the Permittee must ensure that all page numbers listed in the Table of Contents correspond to their associated sections, tables, and figures.

Response: *Corrections have been made as requested.*

Comment 7

In the List of Figures in the Table of Contents, page 6, the font format is not consistent throughout the page. The font sizes are different and the page numbers do not correspond with the correct figures. In addition, "piezometric" is misspelled in the titles, "Figure 9: Sonsela Water-Pizeometric Surface" and Figure 10: Chinle Group-Alluvium Interface Water-Pizeometric Surface." Revise the Report to correct these errors. Be consistent with formatting and review the Report for typographic and other errors prior to submittal.

Response*: Corrections have been made as requested.*

Comment 8

The Appendices in the Table of Contents, page 7, states, "Binder 2, 3 Appendix L Laboratory Analytical Reports." However, the titles pages for binders 2 and 3 read, "Binder 2 – Appendix K Data Tables 8.1 – 8.7" and Binder 3 – Appendix K Data Tables 8.8 – 8.16." Provide replacement pages for binders 2 and 3 with the correct reference to Appendix L and include the pages with the revised Report. Ensure that the title page for each binder is correct prior to submittal.

Response: *Corrections have been made for Binders 2 and 3 and attached with response.*

Comment 9

Throughout the document, the Permittee used undefined acronyms (see Comment 3) or is inconsistent with their use. The following are examples from the Report.

a. In the List of Acronyms, page 8, several acronyms used in the Report were omitted.

b. In Section 1.0 (Introduction), paragraph 2, page 9, the Permittee fails to introduce the acronyms such as New Mexico Water Quality Control Commission (NMWQCC) as well as interchanges different acronyms for NMWQCC throughout the Report. Throughout the Report, the Permittee refers to the NMWQCC as NMWQS, WQCC, and WQCC 20 NMAC 6.2.3103.

c. In Section 2.0 (Scope of Activities), bullet 3, page 34 the Permittee defines new API Separator as "NAPI." However, the Permittee also uses "NAPIS" throughout the report and it is not clear if they are the same unit.

d. In Section 2.2 (Sampling Methods and Procedures), bullet 8, page 25, the Permittee states, "[t]rip blanks will accompany laboratory sample bottles and shipping and storage containers intended for VOC analysis." The Permittee did not define VOC as volatile organic compound prior to introducing the acronym.

e. In Section 6.1 (Monitoring Wells that Have Constituent Levels Above Standards), *SMW-2, SMW-4,* page 43, the Permittee states, "SMW-2 is located on the southeast corner of the closed Land Treatment Unit and SMW-4 is located on the north side of the closed Land Treatment Unit. In SMW-2, MTBE was detected at 0.0088 ppm below the EPA RSL standard. Gasoline Range Organics, in SMW-2 have ranged from 0.69 ppm in January 2008 to non-detectable level of <0.05 ppm in July 2009." The Permittee introduced "LTU" in the first paragraph but did not define the acronym until the second paragraph. In addition, "Gasoline Range Organics (GRO)"had already been introduced and the Permittee redefines it in the discussion.

Revise the Report to define the acronym at their first use and be consistent when using them throughout the Report.

Response:

a. *The List of Acronyms has been updated.*
b. *Acronym for New Mexico Water Quality Control Commission (WQCC) has been standardized to NMWQCC throughout the revised Report.*
c. *Reference to new API and NAPIS are the same unit and will be corrected to NAPIS. Corrections have been made in revised Report.*
d. *Corrections have been made as requested.*
e. *Corrections have been made as requested.*

Comment 10

In Section 1.2 (Background Information), the last sentence in paragraph 1 on page 10, bullet 6 and paragraph 2 on page 11, "feed-stock" is misspelled. Correct the spelling error.

Response: *Spelling error has been corrected.*

Comment 11

Table 1 (2010 Monitoring Schedule) in Section 2.0 (Scope of Activities) summarizes the sample location IDs, the sampling frequency, sample and inspection dates, analytical suites, and reference tables. The following comments pertain to Table 1:

a. Report the sample and inspection dates ascending from the first sample/inspection date to the most recent sample/inspection date.

b. The information in Table 1 is similar to the table in the 2009 FWGWMP. However, Table 1 lists the analytical methods and an expanded inventory of constituents instead of listing only the constituents to be analyzed. The data tables only list some of the analytical methods mentioned in Table 1. Revise Table 1 to only report the constituents to be analyzed (e.g., volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs)) and discuss and list all corresponding analytical methods from Table 1 and the data tables in the appropriate section (e.g., Section 2.5 (Analytical Methods)) in the revised Report.

c. Information in the column titled, "Analytical Suite" does not always pertain to the constituents to be analyzed; there are notes regarding monitoring activities for most of the wells. Change the header of the column to "General Monitoring and Sampling Comments" to reflect the information in the column.

d. Revise the information in the column labeled"Reference Tables" with the correct references to the analytical data and appendices. Change the title of the column to "Analytical Data."

e. There are typographical errors in the "Analytical Suite" column regarding some of the analytical methods. For example, in the row for "Sampling Location ID: Influent to AL-1", the Permittee references "8026" is incorrect. Check that all analytical methods are listed correctly and correct them as necessary (*see* Item a above).

f. On Page 19 in the "Sampling Location ID" column, there is a typographical error: "EP-9" should be "EP-9a" as reported in the approved 2010 FWGWMP. Review all sample locations IDs and ensure they are labeled correctly.

g. Revise note 1 to reference that the sample locations were added to the FWGWMP (approved with modifications on August 25, 2010).

h. Revise note 3 to reference that the first and second quarter sampling and monitoring activities were conducted using the 2009 FWGWMP and that the third and fourth quarter sampling and monitoring activities were conducted using the 2010 FWGWMP. In addition, change the "3" from a superscripted number to match the text font size

i. Include a footnote about the samples collected on 7/15/10 and assign it as note 4.

Response: *Corrections, modifications, have been made as requested in Comment 11, a - i.*

Comment 12

In Section 2.2 (Sampling Methods and Procedures), paragraph 1, page 24, the Permittee states, "[f]ield water quality measurements must stabilize for a minimum of three consecutive readings taken at 2 to 5 minute intervals and are within the following limits before purging will be discontinued and sampling may begin: DO-Dissolved Oxygen (10%), Specific Conductance (3%), Temperature (3%), pH (+/- 10 mill volts)." The correct units of measure for pH are

millivolts (mV). Revise the Report to correct the units of measure for pH. Revise the Report to ensure that all units of measure are correct.

Response: *Corrections have been made as requested.*

Comment 13

The following comments pertain to Section 2.2.1 (Equipment):

a. Replace the paragraphs in Section 2.2.1 with bulleted points rather than presenting in paragraph form.

b. In paragraphs 1 and 4, the unit, inch or inches, can be abbreviated to "in." after it has been introduced.
c. In paragraph 2, remove the capital "I" from the first use of "Instrument" and replace with a lower case "i".

d. In paragraphs 3 and 4 the Permittee introduces field measurements. Replace the first "dissolved oxygen" with "dissolved oxygen (DO)" and the second "dissolved oxygen" with "DO".

e. In paragraph 4, the Permittee states the "[p]olyethylene bailer (1.5" X 36 inches overall length; capacity approximately 1 liter)." Remove the "symbol" and replace with "inches" or "in." The Permittee must be consistent when reporting units throughout the Report.

In General, the Permittee must proofread and edit submittals and ensure formatting, abbreviations, and acronyms are used correctly throughout the revised Report. Apply all changes described above in the revised Report.

Response: *Corrections have been made as requested for Comment 13, a - e.*

Comment 14

In Section 3.0 (Ground Water Elevation Surveys), page 28, the Permittee states, "[g]round water elevation data are collected from the wells listed in Section 2.0. Figure 6 shows the locations of all the active wells. Section 9 contains the data gathered for 2010." In Section 5.1 (Potentiometric Map), page 30, the Permittee states, "Figure 8 presents a Potentiometric Elevation Map showing ground water elevations in some of the Chinle/alluvium wells and contours and Section 10 provides ground water elevation data gathered during 2010." The Permittee does not mention that the wells were resurveyed in 2010 as required by the May 2011 NOD. The May 2011 NOD stated that the elevation data was incorrect in the 2009 Report. In addition, it is unclear if the incorrect elevation data from the 2009 Report were used to generate the figures in Section 10 (Figures) or if the unapproved survey data from *Requirement to Resurvey Ground Water Monitoring Wells and Recovery Wells* (dated December 5, 2011) was used. Revise the Report to clarify which elevation data were used to generate the figures in Section 10 and provide statements in Sections 3.0 and 5.1. In future reports, use the approved survey data and correct any associated figures.

Response: *"Permittee does not mention that the wells were resurveyed in 2010 as required..." is not an accurate statement. All active wells were surveyed on June 7, 2011. Elevation used for the 2010 figures were used from past data. Submittal of the survey had not been approved by NMED prior to submittal of the 2010 Annual Ground Water Report and therefore was not used to generate the maps/figures. To date, Requirement to Resurvey Ground Water Monitoring Wells and Recovery Wells has not been approved by NMED. The Third NOD response was submitted by Western on June 12, 2012 to NMED for approval.*

Comment 15

In Section 6.1 (Monitoring Wells That Have Constituent Levels Above Standards), BW-1C, 2B, 2C, 3B, 3C, paragraph 2, page 32, the Permittee states, "BW-2B dissolved metals also had readings of 0.22 ppm for manganese which is above the WQCC standard of 0.2 ppm, and selenium was also detected at 1.2 ppm which is above the WQCC and EPA [maximum contaminant level (MCL)] standards of 0.05 ppm." Revise the Report to replace readings with "concentrations" to better describe the analytical data.

Response: *Corrections have been made as requested.*

Comment 16

Throughout Section 6.1 (Monitoring Wells That Have Constituent Levels Above Standards), the Permittee presents the sample and monitoring dates in several formats such as "7/15/10, 7-15-10, and July 15, 2010." Be consistent when presenting monitoring and sample dates. In addition, the Permittee must also report the dates ascending from the oldest date to the most recent date in text of the revised Report (*see* Comment 11a).

Response: *Dates have all been revised to one standard format.*

Comment 17

Throughout Section 6.1 (Monitoring Wells That Have constituent Levels Above Standards), the Permittee inserted trended data figures (Tables 2 through 14). Move the trended data figures from this section to a more appropriate section of the revised Report. In addition, the Permittee labeled these trended figures "Tables." Label them as graphs or figures in the revised Report and include the individual data points on the graphs in the revised Report.

Response: *Tables referenced in Section 6.1 have been re-labeled "Graphs" and moved to Section 11.0 Graphs.*

Comment 18

In section 6.1 (Monitoring Wells That Have Constituent Levels Above Standards), *GWM-1,* paragraph 2, page 32, the Permittee states, "[benzene, toluene, ethylbenzene, xylene (BTEX)] constituents analyzed in this well are as follows: Benzene averaged 0.0086 ppm for 2010, with first quarter recording the highest level of 0.012 ppm above the EPA RSL standard of 4.1E-04 ppm, the EPA MCL standard of 0.0056 ppm, and the NMWQS of 0.01 ppm." Throughout

Section 6.1, the Permittee makes statements about the average of the concentrations detected for each constituent. The Permittee must not report the data as an average. The Permittee must evaluate and report individual results for each constituent. Remove all statements that discuss averaging in the revised Report.

Response: *Statements discussing averages has been revised as requested.*

Comment 19

In Section 6.1 (Monitoring Wells That Have Constituent Levels Above Standards), GWM-2, GWM-3, page 35, the Permittee states, "GWM-2 and GWM-3 are inspected on a quarterly basis and these wells are considered dry wells since its installation in 2006. Water was detected in GWM-2 in 2008 in the first quarter. Notification was given to NMED and OCD respectively. In 2010 during the second quarter inspection, GWM-2 and GWM-3 were found to have a water level of 1.5 feet in GWM-1 and 0.88 feet in GWM-3. Notification was given to NMED and OCD within 24 hours of finding." The Permittee does not consistently state which wells are only inspected or both inspected and sampled. Clarify the first sentence to explain that when water is detected in these wells, NMED and OCD are notified and state whether the wells are sampled, purged dry, and then re-inspected to monitor for recharge or no action is taken beyond reporting the presence of water in the wells. In addition, there is a typographical error that references "GWM-1;" replace with "GWM-2" and ensure all wells are correctly referenced.

Response: *Corrections have been made as requested.*

Comment 20

In Section 6.1 (Monitoring Wells That Have Constituent Levels Above Standards), *NAPIS-1. NAPIS-2, NAPIS-3, KA-3,* page 39, the x-axis "Date" for the figure, "Table 11: (KA-3 DRO/GRO Levels for 2008 through 2010)" is incorrect. Revise the figures to present the data ascending from the oldest date to the most recent date. Ensure all figures are accurate prior to submittal.

Response: *Corrections have been made to the figures in Section 6.1 and have been re-labeled as "Graphs" and are now located in Section 11.0.*

Comment 21

In Section 6.1 (Monitoring Wells That Have Constituent Levels Above Standards), *NAPIS-1, NAPIS-2, NAPIS-3, KA-3,* page 40, the Permittee states, "NAPIS-1 General Chemistry parameters were below the applicable detectable standards with the exception of nitrates in the third quarter detected at 11.2 ppm, which is above the WQCC and MCL standards of 1.0 ppm. Nitrates also was detected at levels above the MCL standards in NAPIS-1 in the second quarter at 2.0 ppm to 11.2 ppm in the third quarter. NAPIS-2 had fluoride and chloride levels above the WQCC applicable standard. NAPIS 3 and KA-3 had chloride levels above the WQCC standard 250 ppm with a high reading of 1100 ppm in NAPIS-3 and KA-3." The Permittee did not report the analytical result or the WQCC screening levels for samples obtained from well NAPIS-2 for either fluoride or chloride. The Permittee must be consistent when reporting the screening levels and analytical results of the constituents throughout the revised Report. In addition, there is an extra "the" in the second sentence. Revise the Report accordingly.

Response: *Discussion has been expanded on reporting analytical results.*

Comment 22

In Section 6.2 (Wells with constituent Levels below Standards), BW-1, BW-2, BW-3, paragraph 2, page 44, the Permittee states, "BW-1A and BW-1 depth to water measurements indicated that both of these wells were dry during the July 2010 annual sampling event. No samples were collected from BW-1A and BW-1B." There is a typographical error in the first sentence. Revise the Report to correct the second well as "BW-1B."

Response: *Correction has been made as requested.*

Comment 23

In Section 6.2 (Wells with Constituent Levels below Standards), *GWM-2, GWM-3*, paragraph 4, page 46, the Permittee states, "[f]ourth quarter inspections revealed there was a water level in both wells. Notification was given to NMED and NM OCD. Samples were collected and wells purged of remaining water." The Permittee is not being consistent when reporting information from sampling and monitoring the wells, GWM-2 and GWM-3. The previous sections provide the date that the water levels were first checked, the notification date to NMED and OCD, and the completion date of the weekly checks. In the bulleted items, the Permittee did not present date(s) for the fourth quarter sampling and inspections. Be consistent in reporting dates throughout the Report and include the missing information for GWM-2 and GWM-3 in the revised Report.

Response: *Fourth quarter sampling/inspection date has been added.*

Comment 24

In Section 6.2 (Wells with Constituent Levels below Standards), MW-*1, MW-4, MW-4, MW-5* and *MW-2,* page 47, the Permittee introduces the "modified skinner list of metals and organics." In Table 1 (2010 Monitoring Schedule) of Section 2.0 (Scope of Activities), page 21, the Permittee does not report modified Skinner List metals and organics for MW-1, MW-4, and MW-5 as the suite of analytes to be tested; rather WQCC metals are reported. In Table 1, the Permittee does not list modified Skinner List metals and organics for MW-2; RCRA Skinner List is reported. Explain these discrepancies and provide corrections, where necessary, in the revised Report. In addition, "Skinner List" is a title. Ensure all analytical method and constituent information is consistent throughout the Report.

Response: *Information used for the metals analysis was carried forward from the RCRA Post Closure Monitoring Plan and information from the 2009 FWGWMP. Reference to metals analysis has been corrected.*

Comment 25

In Section 6.2 (Wells with Constituent Levels below Standards), *OW-1 and OW-10,* paragraph 2, page 47, the Permittee states that "[t]hese wells are visually checked and water level measurement taken on a quarterly basis. Inspections were done on 2-11-09, 5-4-09, 8-10-09 and

10-27-09." The inspection dates for wells OW-1 and OW-10 in 2010 are not included. Revise the Report to correct the dates of inspection for the 2010 reporting period and discuss accordingly.

Response: *Inspections dates have been added and discussion expanded on both wells.*

Comment 26

In Section 6.2 (Wells with Constituent Levels below Standards), *OW-12*, page 48, the Permittee states "OW-12 is sampled on an annual basis. Ground water samples are analyzed for the following constituents: Major cations/anions, 8260 plus MTBE, 8270 plus phenol, and WQCC Metals. Well was sampled on the following date: 7/22/10. BTEX plus MTBE, SVOCs and VOCs were at non-detectable levels." The Permittee listed several constituents and analytical methods to be analyzed for well OW-12; however, the chain of custody and analytical data indicate that this sample was analyzed for MTBE only. The Permittee did not present any analytical data results for BTEX, SVOCs, VOCs, or WQCC metals and cannot state that the results were not detected if the sample was not analyzed for these constituents. Review the entire section and ensure all analyzed constituents for each monitoring well correlate with Table 1 (2010 Monitoring Schedule) and the analytical lab results before discussing them in each section. Revise the Report to discuss the correct information and ensure the discussion regarding analytical results match chemical analyses that were conducted.

Response: *Discrepancies have been corrected.*

Comment 27

In Section 6.2 (Wells with Constituent Levels below Standards), *PW-2, PW-3, PW-4*, page 49, The Permittee provides information about the sampling frequency for these wells after each sample date and in the following paragraph. Remove the information after the sample dates in the revised Report to eliminate redundancy.

Response: *Dates have been removed as requested.*

Comment 28

In Section 6.2 (Wells with Constituent Levels below Standards), *Evaporation Ponds 1 through 12B,* page 50, the Permittee states, "[p]ond water samples are analyzed for the following constituents: General Chemistry, 8260 plus MTBE, 8279 plus phenol, WQCC 20.6.2.3103 constituents, [biological oxygen demand (BOD), chemical oxygen demand (COD)], E-Coli Bacteria and RCRA 8 metals." There is a typographical error with the analytical method presented in this section: there is no analytical method "8729." Correct the analytical method to "8270" in the revised Report and ensure all sections report the correct analytical methods prior to submitting them for review.

Response: *Corrections have been addressed as requested.*

Comment 29

In Section 6.2 (Wells with Constituent Levels below Standards), *Influents: Infl to AL-1; Infl to AL-2; Infl to EP-1; BW to EP-2,* page 51, the Permittee states, "[g]eneral chemistry parameters analyzed for Infl to AL-1 and AL02 detected the following: Fluoride levels at 95 to 160 ppm. Sulfate levels ranged from 950 ppm to 990 pm. {Diesel range organics (DRO)] was detected from a low of 1.3 ppm to a high of 60 ppm to Al-1. Infl to EP-1 fluoride levels ranged from 66 ppm to 100 ppm and chloride ranged from 440 ppm to 220 ppm. Sulfate averaged 1413 ppm. DRO averaged 64.8 ppm." The Permittee did not provide the correct name of the sampling location (AL-1 not Al-1) or correctly present the range of results for chloride 220 ppm to 440 ppm). Provide the corrections in the revised Report.

Response: *Corrections have been made as requested.*

Comment 30

In Section 6.3 (Deviations from OCD Ground water Discharge Permit GW-032), paragraph 2, page 53, the Permittee States, [a]ll other outfalls required to be sampled under the OCD Ground Water Discharge permit GW-032, were monitored and the data have been presented in Section 2.0 and Appendix J." It is unclear why the Permittee references Section 2.0 instead of Section 8.0, which contains the data tables. Provide the correct reference in the revised Report.

Response: *Corrections has been made to refer to Section 8.0 and Appendix J has been changed to Appendix L.*

Comment 31

In Section 7.0 (Conclusions), paragraph 2, page 54, the Permittee states, RW-1 and RW-6 are the only two recovery wells where hydrocarbons are recovered on a quarterly basis. In 2010 a total of 0.66 gallons were recovered compared to 1.78 gallons in 2009. RW-6 had a total of 0.15 gallons in 2010." It is unclear whether the Permittee is reporting a "total of 0.66 gallons" for both RW-1 and RW-6 or only for RW-1. Clarify the statement in the revised Report.

Response: *The paragraph discussing RW-1 and RW-6 has been revised to clarify year to date hydrocarbon recovery from each well and tables generated and added to Appendix A and included with revised Report as "Attachments".*

Comment 32

In Section 7.0 (Conclusions), paragraph 2, page 55, the Permittee states, "[a]lso located on the West side are a series of boundary (BW), observation (OW), monitoring (MW), process (PW), and shallow monitoring (SMW) wells. Among the MW and SMW monitoring, levels above the NMWQS of fluoride have been detected in some of the boundary wells. Among the MW and SMW monitoring wells in the west side, a few have shown traces of hydrocarbons. SMW-2 has shown a level of diethyl phthalate at 0.000189 ppm." The Permittee redefines all the acronyms for the wells at the Refinery in this statement. The acronyms have already been defined and do not need to be reintroduced. Revise Section 7.0 of the Report to use only the acronyms. In addition, the Permittee is not consistent when addressing the location of wells using a capital "W"

for "West Side" in the first sentence and a lowercase "w" in the second to last sentence. Review the revised Report for consistency and errors. The Permittee also provides a concentration of diethylphthalate of 0.000189 ppm. The method detection limit for this compound is listed in EPA Method 8270D as 10 µg/L. It is unlikely that a concentration of 189 nanograms per liter could be quantified by this analysis. In Comment 14e of the May 2011 NOD for the 2009 Report, NMED requires the Permittee to provide scientific notation for results at or greater than 4 decimal places. Revise the Report to state diethylphthalate as 1.89E-or ppm or correct the reported result and review the rest of the document to ensure all results are being presented as required.

***Response**: Corrections have been made as requested.*

Comment 33

There were several errors and missing analytical data results in Section 8.0 (Data Tables). The following comments pertain to Section 8.0.

a. The Permittee was required to address formatting errors that were stated in Comments 14a, 14b, 14e, 14f and 14o in the May 2011 NOD for the 2009 Report; however, not all of these errors were addressed. The Permittee must review the comments from the May 16, 2011 NOD and the comments in this NOD and make all required changes to the revised Report.

b. There are several data tables in Section 8.0 that do not correctly highlight analytical results that are greater than the screening levels. For example, Table 8.1 (EFFLUENTS (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent) BTEX Analytical Result Summary), page 57, the NAPIS Effluent sample result for toluene dated 9/9/2008 was bolded, but the analytical result is less than the screening levels for toluene. In addition, in Tables 8.10.1 (Evaporation Ponds (1 thru 12B) General Chemistry Analytical Result Summary) through 8.10.6 (Evaporations Ponds (1 thru 12B) Volatile Organics Analytical Result Summary), pages 108 through 121, the Permittee did not highlight any of the analytical results that were greater than the associated screening levels for each constituent. Review all data tables to check that the correct analytical results have been highlighted. Revise the Report as necessary.

c. Several tables contain errors in column names, sample location names, definitions and/or notes for the data tables. For example, Table 8.1 (EFFLUENTS (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent) BTEX Analytical Result Summary) on page 57 presents "NAPIS" as all capital letters in the title of the data table, but as "Napis Effluent" in the sample location. In addition, Table 8.2 (INFLUENTS (Infl to AL-1, Infl to AL-2, Infl to EP-1) BTEX Analytical Summary Results), page 68, the Permittee did not correctly label the sample location "Infl to AL-1," but as "Infl to Al-1" and incorrectly labeled the column as "Well ID." The locations in Table 8.2 are not wells. Table 8.4.2 (GWM-1, GWM-2, GWM-3) Total Metals Analytical Summary Results), page 93 show "**" and "2" in the data table but the symbols are not defined in the footnotes. Review all data tables and correct all errors in the revised Report.

d. Table 8.1 (EFFLUENTS (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent) BTEX Analytical Result Summary), page 58 explain the difference between "NL = Not listed on laboratory analysis," and "NR = Not requested."

e. Table 8.1 (EFFLUENTS(AL-2 to EP-1, Pilot Effluent, NAPIS Effluent) General Chemistry Analytical Result Summary), page 59 to 60, the Permittee must carry over the sample location ID to the following page (60) to ensure the correct sample location remains with the corresponding analytical results. Check all data tables to ensure the sample location names are carried over to subsequent pages, where appropriate, in the revised Report.

f. Table 8.1.2 (EFFLUENTS (AL02 to EP01, Pilot Effluent, NAPIS Effluent) BOD/COD Analytical Result Summary), page 61, the Permittee has left the "Parameters" section of the data table blank with no information to explain the meaning of blank cells for BOD and COD. However, Table 8.2.1 (INFLUENTS (Infl to AL-1, Infl to AL-2, Infl to EP-1) General Chemistry Analytical Result Summary), page 69, provides screening levels and notes for BOD and COD. Revise the Report to fill in missing information for all data tables and ensure information is consistent in the data tables.

g. Table 8.1.3 (EFFLUENTS (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent) Total Metals Analytical Summary Results), page 63, is a page with a title and notes, but the Permittee does not include a data table with the total metals analytical data results. Appendix L (Laboratory Analytical Reports) contains the analytical results for the total metals for the sampling locations AL-2 to EP-1, Pilot Effluent, and NAPIS Effluent. Provide a data table that summarizes the analytical results for these sampling locations in the revised Report.

h. Table 8.1.4 (EFFLUENTS (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent) Dissolved Metals Analytical Summary Results), page 64, presents dissolved metals analytical data results for the sampling locations AL02 to EP0-1, Pilot Effluent, and NAPIS Effluent. The names of the constituents are cut off due to the small cell size. In addition, the Permittee is not consistently creating the same border format for all cells. Review all data tables to ensure that all names/labels fit in each cell and that all tables are formatted consistently.

i. Table 8.1.6 (EFFLUENTS (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent) Volatile Organic Analytical Summary Results), page 67, presents analytical results for VOCs. The column labeled "Aniline" contains analytical results that re presented in bold print but the EPA Tap Water screening level (RSL = 11.6 µg/L) is not listed for this constituent. Remove the bold format and review all data tables to check that the correct analytical results have been highlighted and bolded (see also Item b above). In addition the analytical result for pyridine collected on 6/8/2010 was omitted. Provide the missing analytical results in the revised Report. Review all data tables to ensure that there are no missing analytical results or information in the data tables.

j. Table 8.2 (INFLUENTS (Infl to AL-1, Infl to AL-2, Infl to EP-1) BTEX Analytical Summary Results), page 68, presents analytical results for BTEX. The Permittee

must provide footnote numbers to bring attention to the dated notes on the bottom of the page of the table. Revise the Report accordingly.

k. Table 8.2.1 (INFLUENTS (Infl to AL-1, Infl to AL-2, Infl to EP-1) General Chemistry Analytical Summary Results), page 69, the Permittee presents general chemistry analytical results. Correct the units for "Specific Conductance" which are reported as microsiemens per centimeter (uS/cm) in the laboratory analytical reports, but as milligrams per liter (mg/L) in the table. Revise the table and check all other data tables to ensure the correct units are presented in the revised report.

l. Table 8.4 (OW-1, OW-10) BTEX Analytical Summary Results), page 78, the Permittee presents BTEX analytical results for OW-1 and OW-10. The Permittee must provide all data results for OW-1 and OW-10, including results from previous sampling to compare to sample analytical results for 2010. Revise the table to include the data results for OW-1 and OW-10 prior to 2010. If samples were not analyzed prior to 2010, state as such in the results discussion.

m. Table 8.4.2 (GWM-1, GWM-2, GWM-3) Total Metals Analytical Summary Results), page 93, presents the total metals analytical results for GWM-1, GWM-1, and GWM-3. However, the results shown include the dissolved metals results. Provide a separate data table for dissolved metals results in the revised Report.

n. Several of the data tables have been printed on legal paper (8.5 X 14 inch). There are also several data tables that have different fonts and font sizes. Revise all the data tables to be consistent with the font size and font style. In addition, print all data tables that do not fit on an 8.5 X 11 inch paper onto 11 X 17 inch paper per Comment 14o of the May 2011 NOD.

o. Section 8.10.2 (Evaporation Ponds (EP-1 thru EP-12B) BOD/COD, E-COLI Analytical Result Summary) is missing page 112. Provide the missing page in the revised Report.

Response:

a. Formatting errors have been corrected
b. Analytical results that are above the standard screening levels have been highlighted.
c. Typographical errors have been corrected as well as sample ID. Table 8.4.2 (GWM-1, GWM-2, and GWM-3) was incorrectly referenced. The correct table should be Table 8.7.2.
d. NR has been removed from the "Notes" section to avoid confusion.
e. Corrections have been made as requested.
f. Table 8.1.2 has been revised to show only BOD/COD results for Pilot Effluent.
g. Table 8.1.3 has been revised to include data for Total Metals.
h. Table 8.1.4 has been reformatted to 11 X 17 inch paper.
i. Aniline screening level has been revised to the most current EPA RSL for Tap Water (April 2012) listed at 0.012 mg/L. The statement "[I]n addition, the analytical result for pyridine collected on 6/8/2010 was omitted." is an inaccurate statement. In

Table 8.1.6, NAPIS Effluent, on 6/18/2010, laboratory results indicate a result of <0.05 mg/L for pyridine.

j. *Footnotes have been revised and/or added as requested.*
k. *Units for specific conductance have been corrected to (µS/cm).*
l. *No revisions to Table 8.4 required. Sampling was not required prior to 2010.*
m. *Table 8.4.2 is incorrectly referenced for GWM-1, GWM-2, GWM-3, Total Metals Analytical Summary Result. Table 8.4.2 is for OW-1 and OW-10 Total Metals and 8.4.3 is for Dissolved Metals.*
n. *Tables have been reformatted to 11 X 17 inch paper.*
o. *Missing Page from Section 8.10.2 (Evaporation Ponds (EP-1 thru EP-12B) BOD/COD, E-COLI Analytical Result Summary) has been included in the revised Report.*

Comment 34

In Section 9.0 (Well Summary Table), page 147, the Permittee states, "[t]he Well Data Summary Table was submitted with current survey measurements provided by DePauli Engineering on August 1, 2010 to NMED-HWB. The revised data table was disapproved and will be revised as requested by correspondence received from NMED-HWB on August 25, 2011. A "Notice of Disapproval Requirement to Resurvey Ground Water Monitoring Wells and Recovery Wells" was received by Western and is currently addressing the comments listed in the disapproval. Per NMED-HWB request a work plan will be submitted on or before December 30, 2011." The Permittee did not mention that the wells were resurveyed in 2010 because the previous survey data was inaccurate. In addition, it is unclear if the unapproved survey data from Requirement to Resurvey Ground Water Monitoring Wells and Recovery Wells (dated December 5, 2011) was used to generate the figures from Section 10 (Figures). Revise Section 9.0 to acknowledge that the survey was conducted to correct the elevation inaccuracies from previous surveys and that the Well Data Summary Table will be submitted once the survey data has been approved by NMED. In addition, the Permittee did not submit a work plan, only a response letter to NMED. Revise the Report by removing the last sentence of the above-referenced paragraph.

Response: *Western disagrees with NMED's statement "[T]he Permittee did not mention that the wells were resurveyed in 2010 because the previous survey data was inaccurate." The wells were surveyed by DePauli Engineering on June 7, 2011 as requested by NMED. Previous ground level elevation data and top of casing elevation data were not correctly reported on the Well Data Summary Table as well as stick up length was incorrectly labeled as feet instead of inches on the table. Past survey data is correct as compared to the most recent survey conducted by DePauli Engineering. There are slight differences in some areas and that is expected due to the datum used in the past as well as survey methods.*

Comment 35

Page 151, the figure's title has been printed on the following page (152). In addition, the Permittee was required to provide arrows on the figures indicating the direction of flow per Comment 17 of the May 2011 NOD. Provide a revised figure to include the title and arrows indicating the direction of ground water flow in the revised Report.

Response: *Corrections have been made to Figure 5.*

Comment 36

The following comments pertain to Figure 6 (Facilities and Wells) through 13 (Product Thickness Map (Separate Phase Hydrocarbon Thickness – Nov 2010)):

a. All figures did not include the figure number in the title, for example, "Figure 6: Facilities and Wells." In addition, the ground water monitoring and recovery well names are not always visible (i.e., obscured by cross-hatching). Revise the figures to include both a description and the figure number in the title as well as ensure that all ground water monitoring and recovery well names are visible on the figures.

b. On Figure 6 (Facilities and Wells), page 153, the Permittee labeled monitoring wells near SWMU 1 (Aeration Basin) as "KA-1R, KA-2R, and KA-3R" instead of "NAPIS-1, NAPIS-2, and NAPIS-3." In addition, the Permittee did not provide a note explaining the cross-hatching found in the Figure 6. Revise the figure to be consistent with the monitoring well designations in the Report. In addition, provide a note that explains the purpose of the cross-hatching.

c. Figures 7 (Typical South-North Profile, Western Refining – Gallup Refinery) through Figure 12 (Alluvial/Fluvial Upper Sand Water, Water Elevations (July 2010) are considered to be inaccurate. The Permittee has not provided a data table presenting elevation data or a reference for the elevation data from these figures. Correct these figures using the approved elevation data and resubmit them with the revised Report.

d. Figures 7 (Typical South-North Profile, Western Refining – Gallup Refinery) and 8 (South-North Section Westerly Plant Area) provide cross-sections based on monitoring wells and possible borings. The following must be completed for these figures.
    1. Provide different symbols or colors to differentiate between monitoring wells and borings and provide a legend to explain the symbol on the figure.
    2. Ensure scale and legends of cross-section figures are legible.
    3. Increase the font size of the elevation and station numbers so they are legible.
    4. Provide a north arrow and clearly label relevant features (e.g., ponds above and below cross-section in Figure 8).
    5. Provide consistent font sizes in figures.

e. Figure 13 (Product Thickness Map (Separate Phase Hydrocarbon Thickness – Nov 2010)) provides information about the separate phase hydrocarbon (SPH) thicknesses near RW-1, RW-5, and RW-6. Provide the numerical values for all of the contours for each area presented in Figure 13 in the revised Report.

Response:

a. Maps revised as requested.
b. Corrections made to proper labeling of the NAPIS wells. The cross-hatching was used to detail the evaporation ponds and the process areas. The cross hatching will be removed from the map so that it does not obscure the location of the wells.

c. *The elevation data used for Figure 7 is from the Well Summary Table. As of July 11, 2012, Western does not have an "approved" elevation data from NMED.*
d. *1 – 5: Corrections and/or revisions have been addressed.*
e. *Numerical values have been inserted as requested.*

Comment 37

Appendix A (Separate Phase Hydrocarbons Recovered (RW-1) provides two tables with information regarding the recovery of SPH from RW-1; However, the Permittee does not provide any information or data for wells RW-5 and RW-6. Because SPH recovery has been mentioned in past reports, provide similar data tables with information for these recovery wells in the revised Report.

Response: *Data tables have never been requested for RW-5 or RW-6 in previous reports and therefore tables have never been included. As requested, data tables have been prepared for both RW-5 and RW-6 and are included in the revised Report in Appendix A, Tab identified as "Attachments".*

Comment 38

Appendix B (Applicable Standards) provides a collection of information pertaining to the screening levels used to evaluate the analytical results from the Report. However, the Permittee must separate each set of standards by providing title pages for each section. For example, the title page for the New Mexico Water Quality Control Commission (WQQC) standards can be labeled as "Appendix B.1: WQCC Standards," and so on. The Permittee also provided Table 2b (TPH Screening Guidelines - Vapor Migration and Inhalation of Ground water (GW-2)) as a reference for the standard used to compare the DRO analytical results; however, Table 2a (TPH Screening Guidelines for Potable Ground water (GW-1) was used. Provide the correct information in the revised Report. In addition, the Permittee provided the Regional Screening Level (RSL) Summary Table June 2011 in Appendix B. The Permittee positioned the table so that some of the tables faced backwards. The Permittee must check all data tables and submitted documents to ensure that all tables and documents face the same direction prior to submitting the Report for review. Recently, NMED sent out a notice that NMED's current Risk Assessment Guidance has been updated. These screening levels must be applied to future work plans and reports.

Response: *Suggested corrections have been implemented.*

Comment 39

In Appendix C (Well and Field Logs), Well # BW-2A dated 7/14/2010, the Permittee did not calculate the well volumes or provide a water level for this well log. Provide a corrected well log with the revised Report.

Response: *Corrected well log for BW-2A is submitted with the revised Report.*

Comment 40

NMED conducted a preliminary review of Appendices D (Summary of Waste Water Treated and Water Balance) through K (Monthly Flow Rate to NAPIS); however, these documents were submitted as a requirement for the OCD Discharge Permit and are subject to review by OCD. OCD may provide comments in separate correspondence. No response required.

Response: *No response required.*

Comment 41

In Appendix F (Summary of all EPA/NMED/RCRA Activity), the Permittee did not include the data obtained from resurveying the wells required by the May 2011 NOD. Include the data in the revised Report.

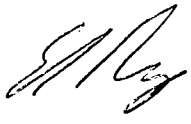
Response: *Survey report by DePauli Engineering is included in Appendix F as requested and can be found in Tab labeled "Attachments" in revised Report.*

If you have any questions regarding Western's responses, please do not hesitate to contact Cheryl Johnson of my staff at (505) 722-0231.

CERTIFICATION

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

Sincerely,



Ed Riege
Environmental Manager

cc: K. Van Horn, NMED HWB
C. Chavez, OCD
C. Johnson, Gallup

BINDER 1

Annual Ground Water Monitoring Report: Gallup Refinery – 2010 Revision 1

Western Refining
Gallup, New Mexico

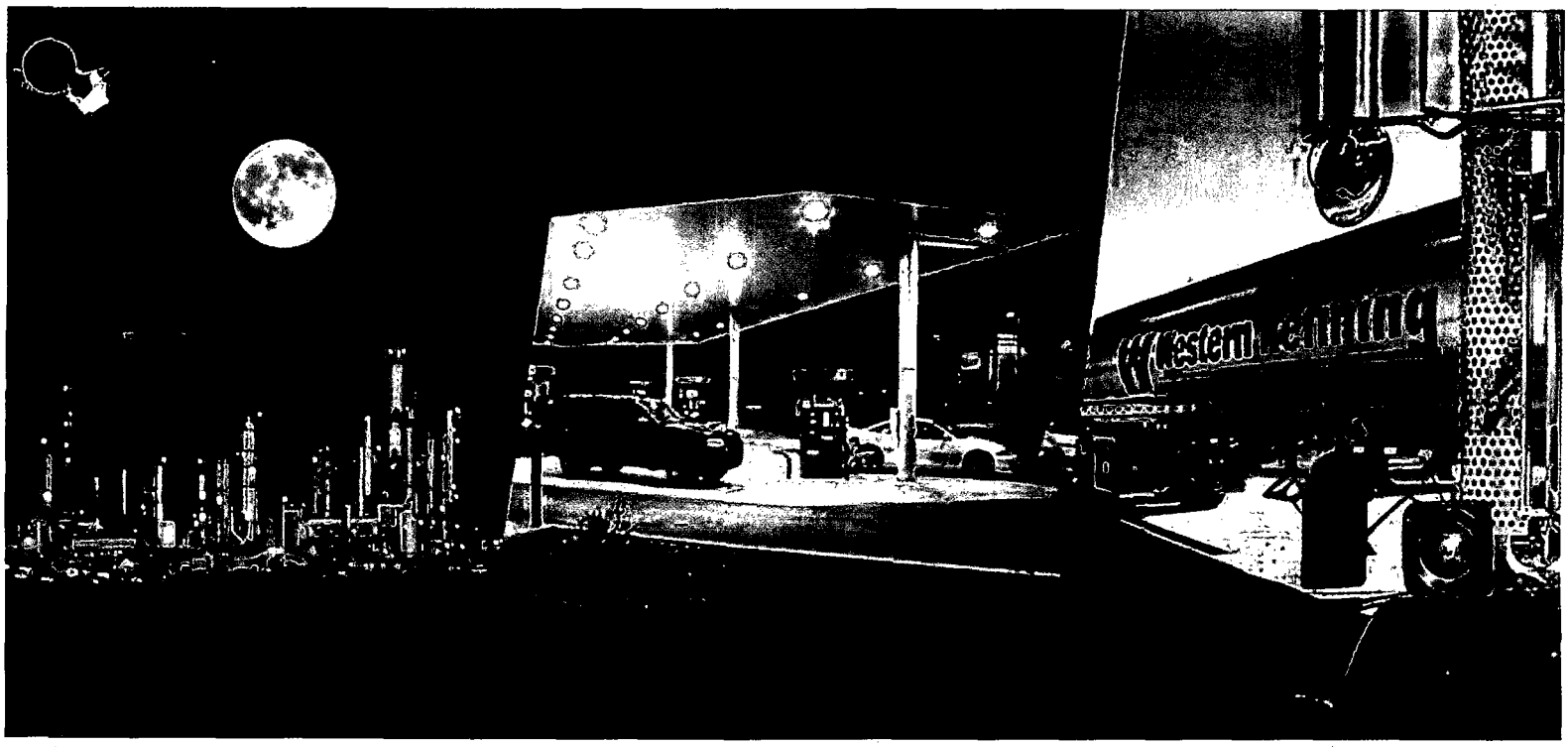
July 12, 2012

BINDER 1

Annual Ground Water Monitoring Report: Gallup Refinery – 2010 Revision 1

Western Refining
Gallup, New Mexico

July 12, 2012



Binder 1

Annual Groundwater Monitoring Report:
Gallup Refinery - 2010
Revision 1

Western Refining
Gallup, New Mexico

July 12, 2012

Prepared by:

Cheryl Johnson
Environmental Specialist

Reviewed by:

Ed Riege, MPH
Environmental Manager

Executive Summary

The Annual Ground Water Monitoring Report for 2010 (Report) has been prepared in response to requirements stated in the Ground Water Discharge Permit, GW-032, issued by the Oil Conservation Division (OCD) of the New Mexico Energy Minerals and Natural Resources Department to the Gallup Refinery owned by Western Refining ("Gallup Refinery"). Monitoring activities conducted for the first quarter of 2010 followed the guidelines of the unapproved 2010 Facility Wide Ground Water Monitoring Plan (FWGWMP) and followed the 2009 FWGWMP for the second and third quarters when it was discovered the 2010 FWGWMP had not yet been approved. The fourth quarter followed the guidelines from the 2010 FWGWMP (approved with modifications on August 25, 2010). Field work was based on two different work plans during the first and second half of 2010. This Executive Summary provides an overview of ground water monitoring results and additional monitoring and reporting required by the permit.

Ground Water Monitoring

There are a total of thirty-six monitoring wells distributed within the boundaries of the refinery of which, sixteen monitoring wells are located along the perimeter of the aeration lagoons and evaporation ponds. The ground water program consists of a number of sampling locations, target analytes, and monitoring frequencies which are monitored on a quarterly, semi-annual, and annual basis. There are two major sections of the Refinery which have been defined as the East and the West side for periodic monitoring.

East Side Ground Water

Ground water monitoring activities on the East side have shown the presence of methyl tert-butyl ether (MTBE) in four observation wells (OW) (OW-13, OW-14, OW-29 and OW-30) located on the northeast corner of the active refinery perimeter (but not the refinery property as a whole). In three wells OW-14, OW-29, and OW-30, MTBE is in the range of 0.12 mg/L to 1.6 mg/L and at levels above the Environmental Protection Agency Regional Screening Level (EPA RSL) of 0.012 mg/L. In OW-13 trace levels of MTBE was detected in the first quarter of 2010 ranging from 2.3E-03 mg/L first quarter to 4.8E-03 mg/L in the fourth quarter of 2010 which is below the EPA RSL of 0.012 mg/L. Benzene detected in OW-14 (1.8 mg/L) is above the New Mexico Water Quality Control Commission (NMWQCC) 20 NMAC 6.2.3103 standards for drinking water of 0.01 mg/L. Down gradient wells were non-detect for benzene, (below the levels of detection of analytical methods).

Two new wells (OW-50 and OW-52) installed in October 2009 down gradient of OW-30 and OW-29 has shown non-detectable concentration levels for benzene, toluene, ethyl benzene, xylene (BTEX) for all four quarters of 2010. These wells were installed per New Mexico Environmental Department (NMED) requirement dated May 28, 2009 to "determine if contamination has migrated north, northwest of the refinery and potentially offsite" from up gradient wells OW-13 and OW-29.

Within the perimeter of the active refinery in this north-east section, there are three shallow recovery wells from which separate-phase hydrocarbons (SPH) have been recovered. Year to date total product recovered from RW-1is 0.66 gallons and from RW-6 total product recovered for 2010 was 0.15 gallons. No product was detected in RW-5.

West Side Ground Water

The West side consists of ground water monitoring (GWM) wells near the aeration lagoons and alongside a series of large evaporation ponds. Immediately down gradient of the refinery's New American Petroleum Institute Separator (NAPIS), a sample from a shallow ground water monitoring well (NAPIS-2) had a detectable level of MTBE ranging from 0.25 mg/L to 0.27 mg/L greater than the EPA RSL standard of 0.012 mg/L. Benzene levels range from 0.83 mg/L to 0.015 in the fourth quarter which are above the NMWQCC standards of 0.01 mg/L for benzene. Monitoring of well GWM-1 in 2010 has shown benzene concentrations between 0.012 mg/L to 6.9E-03 mg/L in the fourth quarter of 2010. Chloride was also detected in concentrations above the NMWQCC standard of 250 mg/Lin GWM-1 ranging from 1600 mg/L first quarter, 1500 mg/L second quarter, 1400 mg/L third quarter and 1300 mg/Lin the fourth quarter in 2010.

Also located on the West side are a series of boundary (BW), observation (OW), monitoring (MW), process (PW) and shallow monitoring (SMW) wells. Among the wells on the far west side are two deep process water wells PW-2 and PW-4. Neither of these wells has ever been known to have any detectable levels of any constituents. In one event in 2007, a semi-volatile organic compound (SVOC) was detected in PW-3 that is located on the East side. PW-3 was re-sampled and no SVOCs were detected. In 2010 PW-3 was sampled for SVOC and BTEX; results were non-detect for both. PW-3 will continue to be sampled on an annual basis as directed per NMED's Comment 12 of the May 16, 2011 NOD (May 2011 NOD) for the Annual Ground Water Monitoring Report: Gallup Refinery 2009. SMW-2 has shown levels of chloride above the NMWQCC standards and fluoride has also been detected in some of the boundary wells that are above the NMWQCC standards from 2004 to 2009.

Additional Monitoring and Reporting

As part of our Ground Water Discharge Permit GW-032, additional reporting is required on an annual basis and is provided in this report. This reporting includes:

- Monitoring of the aeration lagoons, ponds, and outfalls between the lagoons and ponds on a quarterly, semi-annual and annual basis.
- Summary of Waste Water Treated and Water Balance
- Summary of Underground Waste Water Lines Tested
- Summary of all EPA/NMED/RCRA Activity
- Major Refinery Activities and Events
- Summary of all Leaks, Spills and Releases
- Perimeter Inspections

- Monthly Flow Rate to NAPIS.

In the outfalls and evaporation ponds, results for benzene indicated no levels above the NMWQCC standards of 0.01 mg/L. Figure 2, a topographic map and Figure 3, an aerial photograph, depict the area topography and the general layout of the refinery.

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Appendix L	Hall Laboratory Analytical Data

LIST OF ACRONYMS

AC	Alternating Current
AL	Aeration lagoons
BMP	Best Management Practices
BOD	Biochemical Oxygen Demand
BTEX	Benzene, Toluene, Ethyl benzene, Xylene
BW	Boundary Well
COC	Chain of Custody
COD	Chemical Oxygen Demand
DC	Direct Current
DO	Dissolved Oxygen
DRO	Diesel Range Organics
EP	Evaporation ponds
EPA	Environmental Protection Agency
EPA MCL	EPA Maximum Contaminate Level
EPA RSL	EPA Regional Screening Level
Ft.	Foot/Feet
FWGWMP	Facility Wide Ground Water Monitoring Plan
GPM	Gallons per minute
GRO	Gasoline Range Organics
GWM	Ground Water Monitoring Well
HP	Horse Power
HWB	Hazardous Waste Bureau
IDW	Investigation Derived Waste
In.	Inch(s)
ISE	Ion Selective Electrode
LTU	Land Treatment Unit
MTBE	Methyl tert-butyl ether
mg/L	Milligrams/liter
mV	Millivolts
MW	Monitoring Well
NAPIS	New American Petroleum Institute Separator
NMED	New Mexico Environment Department
NPDES	National Pollutant Discharge Elimination System
NMWQCC	New Mexico Water Quality Control Commission (20NMAC 6.2.3103)
OCD	Oil Conservation Division
OW	Observation Well
ORP	Oxidation Reduction Potential
PW	Process Well
RCRA	Resource Conservation and Recovery Act
RW	Recovery Well
SMW	Shallow Monitoring Well

LIST OF ACRONYMS – Continued

SPH	Separate Phase Hydrocarbons
SVOC	Semi-volatile Organic Compounds
SWPP	Storm Water Pollution and Prevention Plan
TDS	Total Dissolved Solids
µm	Micrometer
UPS	United Parcel Service
VOC	Volatile Organic Compounds
WWTP	Waste Water Treatment Plant

1.0 Introduction

This Annual Ground Water Monitoring Report for 2010 has been prepared in response to requirements stated in the Ground Water Discharge Permit, GW-032, issued by the Oil Conservation Division (OCD) of the New Mexico Energy Minerals and Natural Resources Department to the Gallup Refinery owned by Western Refining Southwest, Inc. ("Gallup Refinery").

This Report describes monitoring and remediation activities undertaken throughout 2010, and includes conclusions and recommendations. The ground water monitoring activities have collected data that are used to characterize the nature and extent of impacts to the ground water at the Gallup Refinery, and to recognize any levels of constituents that exceed applicable standards. These standards are those set by the New Mexico Water Quality Control Commission (NMWQCC) 20 NMAC 6.2.3103, the U.S. Environmental Protection Agency's Maximum Contaminant Levels (EPA MCL) 40 CFR 141.62 and if NMWQCC or EPA MCL do not exist for a constituent, levels are compared against the Environmental Protection Agency (EPA) Regional Screening Level (RSL) dated April 2012.

1.1 Facility Ownership, Operation and Location

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

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

Operator: Western Refining Southwest, Inc. (Postal address)
Route 3, Box 7
Gallup, New Mexico 87301

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

SIC code 2911 (petroleum refining) applies to the Gallup Refinery.

The following regulatory identification and permit governs the Gallup Refinery:

- U.S. EPA ID Number NMD000333211
- OCD Discharge Permit No. GW-032

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

1.2 Background Information

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

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

- The Crude Distillation Unit separates crude oil into various fractions; including gas, naphtha, light oil, heavy oil, and residuals.

- The Fluidized Catalytic Cracking Unit (FCCU) dissociates long-chain hydrocarbon molecules into smaller molecules, and essentially converts heavier oils into naphtha and lighter oils.

- The Alkylation Unit combines specific types of hydrocarbon molecules into a high octane gasoline blending component.

- The Reforming Unit breaks up and reforms low octane naphtha molecules to form high octane naphtha.

- The Hydro treating Unit removes undesirable sulfur and nitrogen compounds from intermediate feed stocks, and also saturates the feed stocks with hydrogen to make diesel fuel.

- Additional Treater Units also remove impurities from various intermediate and blending feed stocks to produce finished products that comply with sales specifications.

- The Isomerization Unit converts low octane hydrocarbon molecules into high octane molecules.

- A set of Acid Gas Treating and Sulfur Recovery Units convert and recover various sulfur compounds from other processing units in order to produce either ammonium thiosulfate or a solid elemental sulfur byproduct.

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

Storage tanks are used throughout the refinery to hold and store crude oil, natural gasoline, intermediate feeds tocks, finished products, chemicals, and water. These tanks are all located aboveground and range in size from 80,000 barrels to less than a 1,000 barrels.

Pumps, valves, and piping systems are used throughout the refinery to transfer various liquids among storage tanks and processing units. A railroad spur track and a railcar loading rack are used to transfer feed stocks and products from refinery storage tanks into and out of railcars.

Several tank truck loading racks are used at the refinery to load out finished products and also may receive crude oil, other feed stocks, additives, and chemicals. A pipeline from

the refinery carries diesel fuel to the Pilot Travel Center (formerly Giant). Gasoline is delivered to the Pilot Center via tanker truck.

A designated training area is used to conduct employee firefighting training. During these training activities waste water and/or wash water drains directly into a dedicated tank that is located in the vicinity. The waste water is removed via a vacuum truck and disposed of upstream of the NAPIS. Oily water and sludge is transferred via vacuum truck to the NAPIS for processing and oil-water separation.

The process waste water system is a network of curbing, paving, catch basins, and underground piping that collects waste water effluent from various processing areas within the refinery and is collected in Tank 35 (Equalization Tank) and conveys this waste water to the NAPIS.

The NAPIS is a two compartment oil water separator. Oil is separated from the water based on the principle of gravity separation where the oil will float to the water surface so it can be skimmed off. The skimmed slop oil is passed to a collection chamber where it is pumped back into the refinery process. The clarified water is piped to the top of dual stripping columns where benzene is removed. The stripped water flows into the first aeration lagoon (AL-1). Sludge sinks to the bottom of the NAPIS which is periodically vacuumed out by a vacuum truck and disposed as hazardous waste at an approved hazardous waste landfill or recycled and reused in refineries that have this allowable Oil Bearing Secondary Materials exemption under Resource Conservation and Recovery Act (RCRA).

At the stripping columns, ambient air is blown upwards through the falling cascade of clarified waste water as it passes through distillation column packing. Countercurrent desorption of benzene from the water occurs due to the high volume of air passing over the relatively large surface area provided by the packing. The desorbed benzene is absorbed into the air stream and vented to the atmosphere. Effluent from the stripper columns gravity flows through piping into the first aeration lagoon.

At the aeration basins, the treated waste water is mixed with air in order to oxidize any remaining organic constituents and increase the dissolved oxygen concentration available in the water for growth of bacteria and other microbial organisms. The microbes degrade most of the hydrocarbons into carbon dioxide and water. Three 15-hp mechanical aerators provide aeration in the first aeration lagoon with two 15-hp aerators providing aeration in the second lagoon. Effluent from the second aeration lagoon flows onward into the first of several evaporation ponds of various sizes.

At the evaporation ponds, waste water is converted into vapor via solar and mechanical wind-effect evaporation. No waste water is discharged from the refinery to surface waters of the state because all of the waste water evaporates. The Gallup Refinery does have a National Pollutant Discharge Elimination System (NPDES) Permit for storm water discharge and a Ground Water Discharge Permit.

The storm water system is a network of valves, gates, berms, embankments, culverts, trenches, ditches, natural arroyos, and retention ponds that collect, convey, control, treat, and release storm water that falls within or passes through refinery property. Storm water that falls within the processing areas is considered equivalent to process waste water and is sent through the NAPIS, benzene strippers and waste water treatment system for retention in evaporation ponds. Storm water discharge from the refinery is very infrequent due to the arid desert-like nature of the surrounding geographical area. Gallup Refinery maintains a Storm Water Pollution Prevention Plan (SWPPP) that includes Best Management Practices (BMP) for effective storm water pollution prevention. The refinery has constructed several berms in various areas and improved outfalls (installed barrier dams equipped with gate valves) to minimize the possibility of potentially impacted runoff leaving the refinery property.

1.3 Site Characteristics

Built in the 1950's, the Gallup Refinery is located within a rural and sparsely populated section of McKinley County in Jamestown, New Mexico, 17 miles east of Gallup, New Mexico. The setting is a high desert plain on the western slope of the continental divide. The surrounding land is comprised primarily of public lands and is used for cattle and sheep grazing at a density of less than six cattle or 30 sheep per section. The nearest population centers are the Pilot Travel Center (formerly Giant) refueling plaza, the Interstate 40 highway corridor, and a small cluster of residential homes located on the south side of Interstate 40 approximately 2 miles southwest of the refinery (Jamestown). Surface vegetation consists of native xerophytic vegetation including grasses, shrubs, small junipers and some prickly pear cacti. Average rainfall is less than 7 inches per year.

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

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

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

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

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

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

2.0 Scope of Activities 2010.

The annual ground water sampling event was conducted in July 2010 and the results are summarized in tables provided in Section 8 (Data Tables 8.1 thru 8.16).

Quarterly, semi-annual, annual inspections are summarized in Table 1 and copies of inspection sheets are available in Appendix C. The visual checks and SPH inspections are documented on the forms provided in Appendix C – Well Inspection Logs. Table 1 summarizes the yearly activity on the monitoring wells and sampling requirements. Other requirements per our Ground Water Discharge Permit (GW-032) are as follows:

- Testing of Underground Process Waste Water lines – Appendix E
- Spill Reporting – Appendix H
- Temporary Land Farm, Semi-Annual Sampling – Appendix J
- Perimeter Inspections - Appendix I
- Treatment System Monitoring – Monthly Flow Rate – Appendix K.

Table 1 - 2010 Monitoring Schedule

Sampling Location ID	Frequency	Sample Date(s)	Inspection Date(s)	General Monitoring and Sampling Comments.	Analytical Data
Pilot Effluent	Quarterly (Q)	3/10/10, 6/28/10, 9/16/10, 9/20/10, 11/3/10		VOC, DRO extended/GRO, BOD, COD, WQCC Metals	Appendix L, Section 8.1
NAPIS Effluent	Q	3/9/10, 6/8/10, 9/13/10, 11/3/10		Gen Chem, VOC, SVOC, DRO exended/GRO, WQCC Metals	Appendix L, Section 8.1
AL-2 to EP-1	Q	3/9/10, 6/8/10, 9/13/10, 11/3/10		Major Cations/Anions, VOC, SVOC, DRO extended/GRO, WQCC Metals	Appendix L, Section 8.1
Influent to AL-1	Q	3/9/10, 6/7/10, 9/13/10, 11/3/10		VOC, BOD, COD, Chlorides, DRO extended/GRO, pH, Phenol	Appendix L, Section 8.2
Influent to AL-2	Q	3/9/10, 6/7/10, 9/13/10, 11/3/10		VOC, BOD, COD, Chlorides, DRO extended/GRO, pH, Phenol	Appendix L , Section 8.2
Influent to EP-1	Q	3/10/10, 6/28/10, 9/13/10, 11/3/10		Major Cations/Anions, pH, BOD, COD, Chlorides, VOC, SVOC, DRO extended/GRO, WQCC Metals	Appendix L, Section 8.2
NAPI Secondary Containment (LDU)[1] East LDU, West LDU, Oil Sump LDU	Q	3/18/10[3], 9/20/10, 11/11/10		BTEX, DRO extended/GRO, WQCC Metals or check for fluids	Appendix L, Section 8.3
RW-1	Q		3/3/10, 6/3/10, 9/20/10, 11/3/10	Measure DTW, DTP	N/A
RW-2	Q		3/3/10, 6/3/10, 9/20/10, 11/3/10	Measure DTW, DTP	N/A
RW-5	Q		3/3/10, 6/3/10, 9/20/10, 11/3/10	Measure DTW, DTP	N/A
RW-6	Q		3/3/10, 6/3/10, 9/20/10, 11/3/10	Measure DTW, DTP	N/A
OW-1[1]	Q	3/15/10[3], 9/21/10, 11/10/10	6/3/10	Visual Check for Artesian flow conditions; Major Cations/Anions, VOC, DRO extended/GRO, WQCC Metals	Appendix L, Section 8.4
OW-10[1]	Q	3/15/10[3], 9/21/10, 11/10/10	6/3/10	Visual Check for Artesian flow conditions; Major Cations/Anions, VOC, DRO extended/GRO, WQCC Metals	Appendix L, Section 8.4
OW-13	Q	3/25/10, 6/7/10, 9/22/10, 11/8/10		VOC	Appendix L, Section 8.5
OW-14	Q	3/24/10, 6/7/10, 9/22/10, 11/8/10		VOC	Appendix L, Section 8.5
OW-29	Q	3/25/10, 6/7/10, 9/22/10, 11/9/10		VOC	Appendix L, Section 8.5
OW-30	Q	3/24/10, 6/4/10, 9/27/10, 11/8/10		VOC	Appendix L, Section 8.5
OW-50[2]	Q	3/16/10, 6/1/10, 9/27/10, 11/9/10		VOC, SVOC, WQCC Metals, DRO extended/GRO, General Chemistry	Appendix L, Section 8.6
OW-52[2]	Q	3/16/10, 6/1/10, 9/27/10, 11/9/10		VOC, SVOC, WQCC Metals, DRO extended/GRO, General Chemistry	Appendix L, Section 8.6
GWM-1	Q	3/3/10, 7/20/10, 9/16/10, 11/2/10		Major Cations/Anions, VOC, DRO extended/GRO, WQCC Metals	Appendix L, Section 8.7
GWM-2	Q	9/16/10, 10/4/10	3/3/10, 6/3/10, 9/16/10, 9/28/10, 10/12/10, 10/20/10, 11/2/10	Check for water. If water is detected report to OCD & NMED within 24 hours. Sample for BTEX, DRO extended/GRO, Major Cations/Anions.	Appendix L, Section 8.7
GWM-3	Q	9/16/10, 10/4/10	3/3/10, 6/3/10, 9/16/10, 9/28/10, 10/12/10, 10/20/10, 11/2/10	Check for water. If water is detected report to OCD & NMED within 24 hours. Sample for BTEX, DRO extended/GRO, Major Cations/Anions.	Appendix L, Section 8.7
NAPIS-1	Q	3/8/10, 6/8/10, 9/15/10, 11/2/10		Major Cations/Anions, BTEX, SVOC, DRO extended/GRO, WQCC Metals	Appendix L, Section 8.8
NAPIS-2	Q	3/8/10, 6/10/10, 9/15/10, 11/2/10		Major Cations/Anions, BTEX, SVOC, DRO extended/GRO, WQCC Metals	Appendix L, Section 8.8
NAPIS-3	Q	3/8/10, 6/10/10, 9/15/10, 11/2/10		Major Cations/Anions, BTEX, SVOC, DRO extended/GRO, WQCC Metals	Appendix L, Section 8.8
KA-3	Q	3/8/10, 6/10/10, 7/1/10, 9/15/10, 11/2/10		Major Cations/Anions, BTEX, SVOC, DRO extended/GRO, WQCC Metals	Appendix L, Section 8.8
BW to EP-2	Semi-Annual (SA)	4/20/10, 6/28/10, 11/16/10		Major Cations/Anions	Appendix L, Section 8.9
Evaporation Pond 1 (EP-1)	SA	4/20/10, 4/21/10, 8/2/10, 8/3/10, 11/16/10, 11/17/10		General Chemistry, VOC, SVOC, WQCC 20.6.2.3103 constituents, BOD, COD, E-Coli Bacteria, WQCC Metals	Appendix L, Section 8.10
EP-2	SA	4/20/10, 4/21/10, 8/2/10, 8/3/10, 11/16/10, 11/17/10		Same as EP-1	Appendix L, Section 8.10
EP-3	SA	4/20/10, 4/21/10, 8/2/10, 8/3/10, 11/16/10, 11/17/10		Same as EP-1	Appendix L, Section 8.10
EP-4	SA	4/20/10, 4/21/10, 8/2/10, 8/3/10, 11/16/10, 11/17/10		Same as EP-1	Appendix L, Section 8.10
EP-5	SA	4/20/10, 4/21/10, 8/2/10, 8/3/10, 11/16/10, 11/17/10		Same as EP-1	Appendix L, Section 8.10
EP-6	SA	4/20/10, 4/21/10, 8/2/10, 8/3/10, 11/16/10, 11/17/10		Same as EP-1	Appendix L, Section 8.10

Table 1 - 2010 Monitoring Schedule

Sampling Location ID	Frequency	Sample Date(s)	Inspection Date(s)	General Monitoring and Sampling Comments.	Analytical Data
EP-7	SA	4/20/10, 4/21/10, 8/2/10, 8/3/10, 11/16/10, 11/17/10		Same as EP-1	Appendix L, Section 8.10
EP-8	SA	4/20/10, 4/21/10, 8/2/10, 8/3/10, 11/16/10, 11/17/10		Same as EP-1	Appendix L, Section 8.10
EP-9a[1]	SA	4/20/10, 4/21/10, 8/2/10, 8/3/10, 11/16/10, 11/17/10		Same as EP-1	Appendix L, Section 8.10
EP-11[1]	SA	4/20/10, 4/21/10, 8/2/10, 8/3/10, 11/16/10, 11/17/10		Same as EP-1	Appendix L, Section 8.10
EP-12A[1]	SA	4/20/10, 4/21/10, 8/2/10, 8/3/10, 11/16/10, 11/17/10		Same as EP-1	Appendix L, Section 8.10
EP-12B[1]	SA	4/20/10, 4/21/10, 8/2/10, 8/3/10, 11/16/10, 11/17/10		Same as EP-1	Appendix L, Section 8.10
BW-1A	Annual (A)		7/14/2010 Not enough water to sample	Major Cations/Anions, VOC, SVOC, WQCC Metals	Appendix L, Section 8.10
BW-1B	A		7/14/2010 Not enough water to sample	Major Cations/Anions, VOC, SVOC, WQCC Metals	Appendix L, Section 8.11
BW-1C	A	7/15/10[4], 7/20/10	7/14/10	Major Cations/Anions, VOC, SVOC, WQCC Metals	Appendix L, Section 8.11
BW-2A	A	7/15/10[4], 7/20/10	7/14/10	Major Cations/Anions, VOC, SVOC, WQCC Metals	Appendix L, Section 8.11
BW-2B	A	7/15/10[4], 7/20/10	7/14/10	Major Cations/Anions, VOC, SVOC, WQCC Metals	Appendix L, Section 8.11
BW-2C	A	7/15/10[4], 7/20/10	7/14/10	Major Cations/Anions, VOC, SVOC, WQCC Metals	Appendix L, Section 8.11
BW-3A	A		7/20/10 Not enough water to sample	Major Cations/Anions, VOC, SVOC, WQCC Metals	Appendix L, Section 8.11
BW-3B	A	7/15/10[4], 7/20/10	7/14/10	Major Cations/Anions, VOC, SVOC, WQCC Metals	Appendix L, Section 8.11
BW-3C	A	7/15/10[4], 7/20/10	7/14/10	Major Cations/Anions, VOC, SVOC, WQCC Metals	Appendix L, Section 8.11
EP-2 Inlet	A	7/21/10		VOC, DRO extended/GRO, BOD, COD, TDS	Appendix L, Section 8.12
MW-1[5]	A	3/1/10, 7/16/10		Major Cations/Anions, VOC, DRO extended/GRO, WQCC Metals. For RCRA 10 year requirements: Gen Chem, RCRA List constituents (total and dissolved) including mercury and cyanide, VOC, SVOC, TPH	Appendix L, Section 8.13
MW-2[5]	A	3/1/10, 7/16/10		Major Cations/Anions, VOC, DRO extended/GRO, WQCC Metals	Appendix L, Section 8.13
MW-4[5]	A	3/1/10, 7/19/10		Major Cations/Anions, VOC, DRO extended/GRO, WQCC Metals. For RCRA 10 year requirements: Gen Chem, RCRA List constituents (total and dissolved) including mercury and cyanide, VOC, SVOC, TPH	Appendix L, Section 8.13
MW-5[5]	A	3/1/10, 7/15/10		Major Cations/Anions, VOC, DRO extended/GRO, WQCC Metals. For RCRA 10 year requirements: Gen Chem, RCRA List constituents (total and dissolved) including mercury and cyanide, VOC, SVOC, TPH	Appendix L, Section 8.13
OW-11	A	7/28/10		Major Cations/Anions, VOC, SVOC, WQCC Metals	Appendix L, Section 8.14
OW-12	A	7/22/10		VOC	Appendix L, Section 8.14
SMW-2	A	7/16/2010		Major Cations/Anions, VOC, DRO extended/GRO, WQCC Metals.	Appendix L, Section 8.15
SMW-4[5]	A	3/1/10, 7/16/10		Major Cations/Anions, VOC, DRO extended/GRO, WQCC Metals. For RCRA 10 year requirements: Gen Chem, RCRA List constituents (total and dissolved) including mercury and cyanide, VOC, SVOC, TPH	Appendix L, Section 8.15
PW-2	Every 3 years. Start 2008	9/12/08		VOC, SVOC, WQCC Metals, Cyanide, Nitrates	Appendix L, Section 8.16
PW-3	Annual starting with 2009	9/23/10, 11/1/10		VOC, SVOC, WQCC Metals, Cyanide, Nitrates	Appendix L, Section 8.16
PW-4	Every 3 years. Start 2007	7/28/10		VOC, SVOC, WQCC Metals, Cyanide, Nitrates	Appendix L, Section 8.16

NOTES:

1) Location sites added to Facility Wide Ground Water Monitoring Plan (FWGWMP) (approved with modifications August 25, 2010)

2) OW-50 and OW-52: New wells installed in October 5, 2009. Analytical suite is per NMED correspondence dated June 4, 2010 "Approved with Modifications".

3) First quarter sampling and monitoring activities were conducted using the unapproved 2010 FWGWMP; Second and third quarter used the 2009 FWGWMP. Fourth quarter monitoring activities were conducted using the approved 2010 FWGWMP (August 25, 2010).

4) 7/15/10 samples shipped via Federal Express Overnight and samples were lost. Federal Express was unable to locate coolers

5) MW-1, 2, 4, 5, SWM-4 - March 1-2, 2010 sampling event was for the 10 year RCRA Post Closure Permit requirements

In addition to ground water monitoring, surface water monitoring is also conducted as follows

- Collect effluent samples from Benzene Strippers 1 and 2 located by the aeration lagoons and Benzene Stripper 3 located by the crude desalter for 8021B plus MTBE analysis. Collection started on a weekly basis from January to August 2010 and modified to a monthly basis in September of 2010.

- Collect effluent sample from the NAPIs and an influent sample from Benzene Stripper 3 on a monthly basis for 8021B plus MTBE analysis.

- Record monthly flow rate readings in gallons per minute (gpm) to Benzene Strippers 1 and 2 (flow leaving the NAPIS).

- Submit estimates of effluent flow from Benzene Stripper 3.

- Submit all sampling and monitoring data on a monthly basis due on the thirtieth day of the following month.

2.1 Monitoring and Sampling Program

The primary objective of ground water monitoring is to provide data which will be used to assess ground water quality at and near the refinery. Ground water elevation data are collected to evaluate ground water flow conditions. The ground water monitoring program for the refinery consists of sample collection and analysis from a series of monitoring, recovery, boundary, process and shallow monitoring wells, including outfalls, evaporation pond locations and surface water monitoring of effluents from the NAPIS to the Benzene Strippers 1, 2 and Benzene Stripper 3 at the crude desalter.

The monitoring network is divided into two investigation areas (East Side and West Side). The sampling frequency, analyses and target analytes vary for each investigation area and well/outfall/evaporation pond location. The combined data from these investigation areas is used to assess ground water quality beneath and immediately down-gradient of the refinery, and evaluate local ground water flow conditions. Samples are not collected from monitoring wells that have measurable separate phase hydrocarbon (SPH) on a regular basis. For wells that are purged dry, samples are collected if recharge volume is sufficient for sample collection within 24 hours. Wells not sampled due to insufficient recharge will be documented in the field log.

Daily field activities, including observations and field procedures, will be recorded for each activity and maintained at the Gallup Refinery. Field logs will include the following information

- Well ID/ Evaporation pond location/ Outfall
- Date
- Start and finish sampling time

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

All samples collected for analysis will be recorded in the field report or data sheets. Chain-of-Custody (COC) forms will be completed at the end of each sampling day, prior to the transfer of samples off site, and will accompany the samples during shipment to the laboratory. A custody seal will be affixed to the lid of the shipping container. Copies of all COC forms generated are kept on site.

Field duplicates and trip blanks may be obtained for quality assurance during sampling activities.

2.2 Sampling Methods and Procedures

Each monitoring well is gauged for depth to water measurement to determine the amount of water to purge. A minimum of two well volumes are purged from each well prior to sampling. If water level is at a minimum or the well has low recharge rate, then the well is allowed to recharge within 24 hours before sample is collected. A pump is lowered slowly into the well to minimize disturbance to a depth of the midpoint of the screened interval of the well. The pump controller is started at a slow rate and gradually increased until water is discharged. Field water quality measurements must stabilize for a minimum of three consecutive readings taken at 2 to 5 minute intervals and are within the following limits before purging will be discontinued and sampling may begin: Dissolved Oxygen (DO) (10%), Specific Conductance (3%), Temperature (3%), pH (+/- 10 mV).

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

Well purging and sampling are performed using disposable bailers and/or appropriate sampling pumps where applicable. Some of the wells have dedicated pumps installed where a controller is used to power the submersible pump to purge water. In shallow wells, new disposable bailers are used for each well to hand bail purge water and retrieve water samples.

All purged ground water from monitoring wells is collected in a 55 gallon drum(s) and/or a 5 gallon bucket and disposed off in the refinery waste water treatment system upstream of the NAPIS.

Ground water samples intended for metals analysis are submitted to the laboratory as total and dissolved metals samples.

At a minimum, the following procedures are used when collecting/shipping samples.

- Protective eye wear (safety glasses, goggles and or face shield)
- Neoprene, nitrile, or other protective gloves are worn when collecting samples. New disposable gloves are used to collect sample at each sample point.
- All samples collected for chemical analysis are transferred into clean sample containers supplied by the analytical laboratory. The sample container is clearly marked and labeled.
- Ground water samples obtained for dissolved metals analysis are filtered through a 0.45 μm (micrometer) mesh size disposable filter.
- Samples are labeled, sealed, placed in cooler with ice until they are shipped via United Parcel Service (UPS) RED, Federal Express Overnight or personally delivered to the analytical laboratory.
- Standard COC procedures are followed for all samples collected. The COC form and sample request form are shipped inside the sealed storage container to be delivered to the laboratory, signed and dated.
- Field duplicates and trip blanks may be obtained for quality assurance during sampling activities. Trip blanks will accompany laboratory sample bottles and shipping and storage containers intended for volatile organic compound (VOC) analyses. Trip blanks will consist of a sample of analyte free de-ionized water placed in an appropriate sample container. Trip blanks will be analyzed at a frequency of one for each shipping event involving twenty or more samples.

In order to prevent cross-contamination, field equipment that comes into contact with water or soil is cleansed before each sampling event. The cleansing procedure for the portable pump consists of rinsing/washing the equipment with an Alconox detergent water mixture followed by two rinses before use in another well. Any equipment such as data loggers or tape measure that comes in contact with each well is washed with an Alconox water mixture and rinsed with distilled water before each use.

2.2.1 Equipment

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

- Water level instrument used is a Heron Instrument 100 feet DipperT electric water depth tape complying with US GGG-T-106E, EEC, Class II. This instrument measures water level, indication is a steady audible tone and hydrocarbons indications is an erratic audible tone.

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

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

- Field equipment parameter instruments are calibrated to known standards, in accordance with the manufacturers' recommended schedules and procedures. Calibration checks are conducted before use and the instruments recalibrated if necessary. Calibration of equipment is noted in the daily field logs.

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

2.3 Collection and Management of Investigation Derived Waste

Investigation derived waste (IDW) generated during each ground water sampling event may include purge water, decontamination water, excess sample material, and disposable sampling equipment. All water purged from monitoring wells generated during sampling and decontamination activities is temporarily stored in a labeled 55-gallon drum(s) and/or 5 gallon bucket until disposed of in the refinery waste water treatment system upstream of the NAPIS.

2.4 Collection of Surface Water Samples

At the evaporation ponds, samples are collected near the inlets, and are a grab sample at the pond edge near the inlet. This location is noted in the field notebooks. For outfalls, a grab sample is collected at the pipe end, and recorded.

2.5 Analytical Methods

Ground water and surface water samples collected during the monitoring events are analyzed for the constituents listed in Section 2.0. In addition, the NMWQCC standard is used for total and dissolved metals analysis.

2.6 Perimeter Search

Western Refining conducts a perimeter search of the refinery property on a bi-monthly basis starting in December 2004. The inspection focuses on hydrocarbon staining or any release that could result in material leaving the property boundary. Western Refining has prepared an inspection checklist to be completed and signed by the environmental employee conducting the inspection. See Appendix I for copies of the inspection records.

2.7 Remediation Activities

SPH has been found in wells RW-1, RW-5 and RW-6. SPH is recovered from these wells using a submersible bladder pump, or hand-bailing using a disposable 3 foot polyethylene bailer. Appendix A provides details of the volumes of product recovered and the dates and the depths to water and SPH that we have measured in these wells. In 2010, year to date product recovered is approximately 0.66 gallons from RW-1. RW-5 has shown a decline in SPH levels and beginning in the second quarter of 2009 through 2010, RW-5 has had no indication of a SPH thickness level during quarterly inspections. RW-6 continues to show a decline in SPH levels from a level of 0.16 feet in the first quarter of 2009 to a level of 0.09 feet in second quarter of 2010. SPH thickness level for the year in RW-6 averages 0.23 feet for 2010 and year to date product recovery is 0.15 gallons for 2010.

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

3.0 Ground Water Elevation Surveys.

Ground water elevation data are collected from the wells listed in Sections 2.0. Figure 6 shows the locations of all the active wells. Section 9 contains the data gathered for 2010. As directed by NMED ground water elevation data are collected on a quarterly or an annual basis. Ground water levels and SPH thickness measurements (from the RW series of wells) are collected quarterly to monitor ground water elevation and product thickness fluctuations over time. Maps were generated in April 2011 using elevation data carried forward from the 2009 Well Data Summary Table and field inspection logs for 2010. Resurvey of active wells was required by NMED on June 6, 2011 and Western submitted resurvey report to NMED on August 1, 2011. Since NMED had not approved the survey report prior to September 30, 2011, Gallup Refinery did not have the maps re-printed to reflect the most current survey data with the 2010 Annual Ground Water Report submitted on August 31, 2011.

Measurement data and the date and time of each measurement are recorded on a site monitoring data sheet. The depth to ground water and SPH thickness levels are measured to the nearest 0.01 ft. The depth to ground water and SPH thickness are recorded relative to the surveyed well casing rim or other surveyed datum. A corrected water table elevation is provided in wells containing SPH by adding 0.8 times the measured SPH thickness to the measured water table elevation.

All water/product levels are measured to an accuracy of the nearest 0.01 ft. using an electrical conductivity based meter, the Heron Instruments 100 ft. DipperT electric water depth tape complying with US GGG-T-106E, EEC Class II. After determining the water level the well volume is calculated using the height of the liquid column and the internal cross sectional area of the well. The purge volume is a minimum of two times the well volume.

Ground water and SPH levels are measured in all wells within 48 hours of the start of ground water sampling activities. All manual extraction of SPH and water from recovery wells, observation wells, and collection wells is discontinued for 48 hours prior to the measurement of water and SPH levels.

4.0 Regulatory Criteria

We compare our data to the following most recent regulatory standards (Appendix B) at time of submission of report.

- New Mexico 20NMAC 20.6.2.3103 (NMWQCC). Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
- EPA 40 CFR 141.62. National Primary Drinking Water Regulations (Updated June 8, 2012) (EPA MCL).
- EPA Regional Screening Levels set for Residential Risk-Based Screening Levels (EPA RSL) for Tap Water (Ross) (April 2012).
- NMED total petroleum hydrocarbon (TPH) screening guidelines for Potable Ground water (GW-1), Table 2a. (June 2012).

5.0 Ground water Elevations and Separate-Phase Hydrocarbons

5.1 Potentiometric Map

Figure 8 presents a Potentiometric Elevation Map showing ground water elevations in some of the Chinle/Alluvium wells and contours and Section 10 provides ground water elevation data gathered during 2010. Maps were generated in April 2011 using elevation data carried forward from the 2009 Well Data Summary Table and field inspection logs for 2010. Resurvey of active wells was required by NMED on June 6, 2011 and Western submitted resurvey report to NMED on August 1, 2011. Since NMED had not approved the survey report prior to September 30, 2011, Gallup Refinery did not have the maps re-printed to reflect the most current survey data with the 2010 Annual Ground Water Report submitted on August 31, 2011.

6.0 Ground water Monitoring Results

Section 8 contains the Ground Water Data Tables for 2010. Only constituents above levels of detection are generally described. Bold and highlighted values indicate that a constituent exceeds one or more of the standards listed. Appendix L (Binder 2) contains the laboratory analytical data reports. As Part of our Ground Water Discharge Permit (GW-32), additional reporting is required on an annual basis and is provided in this report. This reporting includes:

- Monitoring of the aeration lagoons, ponds and outfalls between the lagoons and ponds on a quarterly, semi-annual and annual basis. (See Section 8)
- Summary of Waste Water Treated and Water Balance (See Appendix D)
- Summary of Underground Waste Water Lines Tested (See Appendix E)
- Summary of All EPA/NMED/RCRA Activity (See Appendix F)
- Major Refinery Activities and Events (See Appendix G)
- Summary of All Leaks, Spills and Releases (See Appendix H)
- Perimeter Inspections (See Appendix I)
- Temporary Land Farm Monitoring (See Appendix J)
- Monthly Flow Rate to NAPIS (See Appendix K)

6.1 Monitoring Wells That Have Constituent Levels Above Standards.

BW-1C, 2B, 2C, 3B, 3C

The boundary wells are sampled on an annual basis. Ground water samples were analyzed for the following constituents: Major cations/anions, 8260B plus MTBE, 8270 plus phenol and NMWQCC metals. The boundary wells were sampled on the following dates:

- BW-1C: 7/15/10, 7/20/10 re-sampled
- BW-2B: 7/15/10, 7/20/10 re-sampled
- BW-2C: 7/15/10, 7/20/10 re-sampled
- BW-3B: 7/15/10, 7/20/10 re-sampled
- BW-3C: 7/15/10, 7/20/10 re-sampled

Wells were originally sampled on July 15, 2010 packaged and sent via Federal Express for overnight delivery. Samples did not arrive at the laboratory as scheduled the next day

and shipments were tracked. Federal Express was unable to locate the samples and Gallup Refinery had to re-sample on July 20, 2010.

Fluoride was detected in BW-1C during the annual inspection at 2.7 mg/L which is above the NMWQCC standard of 1.6 mg/L. BW-2B fluoride level was also above the NMWQCC standard at 1.8 mg/L and BW-2C level was at 2.1 mg/L. BW-2B dissolved metals also had concentrations of 0.22 mg/L for manganese which is above the NMWQCC standard of 0.2 mg/L and selenium was also detected at 1.2 mg/L which is above the NMWQCC and EPA MCL standard at 0.05 mg/L. In BW-3B, bis(2-ethylhexyl) phthalate was also detected at 0.01 mg/L which is above the EPA RSL standard of 4.8E-03 mg/L.

GWM-1

Ground water samples are collected on a quarterly basis beginning with the fourth quarter of 2010 per approved FWGWMP dated August 25, 2010. Previously, this well was on an annual sampling schedule. Ground water samples were analyzed for the following parameters: Major cations/anions, 8260B plus MTBE, 8015B and NMWQCC Metals. Quarterly water level measurement inspections and sampling were completed on the following dates:

- GWM-1: 3/3/10, 7/20/10, 9/16/10 and 11/2/10.
- Annual samples collected on7/20/10.

BTEX constituents analyzed in this well are as follows: Benzene concentrations ranged from a low of 6.9E-03 mg/L fourth quarter to a high of 0.012 mg/L in the first quarter which is above the EPA RSL standard of 4.1E-04 mg/L, the EPA MCL standard of 0.005 mg/L, and the NMWQCC standard of 0.01 mg/L. See Graph 1 in Section 11.0 for 2006 through 2010 benzene trend.

Data gathered for MTBE levels in this well ranged from a low concentration of 0.053 mg/L in the third quarter to a high detection level of 0.078 mg/L in the first quarter. All four quarters were above the EPA RSL standard of 0.012 mg/L. Ethyl benzene also showed concentration levels above the EPA RSL standard of 1.5E-03 mg/L but did not exceed the NMWQCC or the EPA MCL standards. See Graph 2 for MTBE trend in Section 11.0.

VOC results are as follows for 2010: 1, 2, 4-trimethylbenzene detection levels ranged from a low concentration level of 7.5E-03 mg/L in the fourth quarter to a high concentration of 0.013 mg/L during the annual sampling event which are below the EPA RSL standard; 1,3,5-trimethylbenzene analysis indicated a concentration of 1.9E-03 mg/L in the third quarter which is below the EPA RSL standard of 0.37 mg/L. 1-methylnaphthalene was detected during the annual sampling event at 0.011 mg/L which is above the EPA RSL standard of 2.3E-03 mg/L. Naphthalene was detected at 3.5E-03 mg/L which is above the EPA RSL standard of 2.4E-03 mg/L and below the NMWQCC standard of 0.025 mg/L. Fluoride levels were above the NMWQCC standards for all four

quarters ranging from a low of 2.1 mg/L in the first quarter to a high of 3.5 mg/L in the fourth quarter. Chloride levels ranged from a low of 1300 mg/L in the fourth quarter to a high of 1600 mg/L in the first quarter. Diesel Range Organics (DRO) was also detected in first quarter at 3.9 mg/L up to 7.7 mg/L in the third quarter. Total metals analysis indicated detection levels greater than the NMWQCC and EPA MCL standards for arsenic ranging from 0.098 mg/L first quarter to 0.16 mg/L in the second quarter and back down to 0.12 mg/L in the third quarter (Graph 4). Barium was detected at 1.4 mg/L in the fourth quarter and 1.2 mg/L in the third quarter in 2010, iron ranged from 15 mg/L to 20 mg/L first and second quarter and down to 7.9 mg/L in the fourth quarter.

GWM-2, GWM-3

GWM-2 and GWM-3 are inspected on a quarterly basis. If either one of these wells indicate a water level during a quarterly inspection, the information is reported to NMED and OCD within 24 hours of finding. If there is sufficient water present, samples are collected for analysis and well is purged dry. Since its installation in 2005 both of these wells have shown no detection of a water level. During an inspection in 2008, water was detected in GWM-2 during the first quarter and notification was given to NMED and OCD within 24 hours of finding. Samples were collected from GWM-2 and well was purged dry after samples were collected. In 2010 during the second quarter inspection, GWM-2 and GWM-3 indicated a water level with GWM-2 showing a water level of 1.5 feet and 0.88 feet in GWM-3. There was not enough water in each well to collect samples and wells were purged dry. Both wells were re-checked on June 4, 2010 and found to be dry. No further action was taken until the next quarterly inspection. Water was detected in the third and fourth quarter of 2010 and notification was given to NMED and OCD within 24 hours of finding. Weekly inspections were done to monitor recharge rate on both wells and ground water samples were collected from both wells in September and October for the following analysis. 8021B plus MTBE, GRO/DRO extended and major cations/anions. Inspections and sampling were performed on the following dates.

- GWM-2: 9/16/10, 10/4/10 – Sampled;
- Inspections: 3/3/10, 6/3/10, 6/10/10, 9/16/10, 9/28/10, 10/4/10, 10/12/10, 10/20/10, 11/2/10.
- GWM-3: 9/16/10, 10/4/10 – Sampled;
- Inspections: 3/3/10, 6/3/10, 6/10/10, 9/16/10, 9/28/10, 10/4/10, 10/12/10, 10/20/10, 11/2/10

BTEX analysis for both wells was at non-detectable levels. MTBE was detected in GWM-2 at 0.011 mg/L which is below the EPA RSL standard of 0.012 mg/L. GWM-3 had an MTBE detectable level of 0.009 mg/L in the third quarter and a level of 9.2E-03 mg/L in the fourth quarter. Method 8260B analysis indicated non-detectable levels in both GWM-2 and GWM-3 wells. However, fluoride and chloride levels were detected in both wells. Sulfate was also detected at levels above the NMWQCC standard of 600 mg/L. Nitrite and nitrates were also detected in GWM-3 at concentration levels above the EPA MCL standards. DRO analysis for GWM-3 indicated a detectable level in the

third and fourth quarter at 3.7 mg/L and 1.3 mg/L which are above the 0.2 mg/L NMED Table 2a, TPH Screening Guidelines for Potable Ground Water.

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

The monitoring wells are sampled on an annual basis. Ground water samples are analyzed for the following constituents: Major cations/anions, 8260 plus MTBE and NMWQCC Metals and MW-2 was sampled as part of the 10 year RCRA Post Closure event. The monitoring wells were inspected and sampled on the following dates:

- MW-1: 7/16/10
- MW-2: 3/1/10
- MW-4: 7/19/10
- MW-5: 7/19/10

BTEX indicated no detectable levels in all four MW wells. General chemistry parameters also indicated levels below applicable standards. DRO/GRO concentration levels were also below the applicable standards. Diethylphthalate was detected in MW-1 at a level of 1.03E-03 mg/L. Acetone was detected in MW-2 at a concentration level of 2.73E-03 mg/L and 3.36E-03 mg/L in MW-5 which are at levels below the EPA RSL of 12 mg/L.

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

NAPIS wells are sampled on a quarterly basis. Ground water samples were analyzed for the following constituents: Major cations/anions, 8260B plus MTBE, 8270 plus phenol, 8015B, and NMWQCC Metals. NAPIS Wells were sampled on the following dates:

- NAPIS-1: 3/8/10, 6/8/10, 9/15/10, 11/2/10
- NAPIS-2: 3/8/10, 6/8/10, 9/15/10, 11/2/10
- NAPIS-3; 3/8/10, 6/10/10, 9/15/10,
- KA-3: 3/8/10, 6/10/10, 9/15/10, 11/2/10

These shallow wells are located around the NAPIS. NAPIS-1 is an up gradient well located on the southeast side of and NAPIS-2 is located immediately down gradient on the southwest side of the NAPIS. KA-3 and NAPIS-3 are located on the west side at the north end of the NAPIS. All NAPIS and KA wells are situated at or below ground level.

BTEX results indicated benzene was detected in NAPIS-2 above the EPA RSL standard of 3.9E-04 mg/L and above the EPA MCL standard of 0.005 mg/L and the NMWQCC standard of 0.01 mg/L. (Graph 5 in Section 11.0).

Ethyl benzene levels in NAPIS-2 ranged from a high of 0.016 mg/L first quarter which is above the EPA RSL standard of 1.5E-03 mg/L to a low of <0.001 mg/L fourth quarter 2010. (Graph 6 in Section 11.0).

MTBE levels in NAPIS 2 ranged from a low of 0.23 mg/L to a high of 0.027 mg/L detected in the fourth quarter which are above the EPA RSL standard of 0.012 mg/L for 2010. There was an increase of MTBE from November 2009 to March 2010 as shown in Graph 7, Section 11.0. No MTBE data is available for September 2008.

NAPIS-2 method 8015B analysis indicated the following results: DRO showed levels ranging from 3.8 mg/L first quarter and 5.1 mg/L fourth quarter exceeding the 0.2 mg/L NMED Table 2a, TPH Screening Guidelines for Potable Ground Water (GW-1). Gasoline Range Organics (GRO) also showed levels ranging from 1.0 mg/L first quarter to 0.57 mg/L fourth quarter (Graph 8 in Section 11.0).

NAPIS-3 also had detectable levels of benzene in the first and second quarter at levels of 0.072 mg/L in the first quarter up to 0.2 mg/L in the third quarter. MTBE was also detected in the second quarter at 0.08 mg/L which is above the EPA RSL standard of 0.012 mg/L.

In KA-3, benzene was detected at 0.52 mg/L in the third quarter and 0.23 mg/L in the fourth quarter for 2010. KA-3 had detectable levels of ethyl benzene for 2010 in the third quarter at 0.031 mg/L and 0.014 mg/L in the fourth quarter which is above the EPA RSL standard of 1.5E-03 mg/L. MTBE was detected at 0.11 mg/L in the third quarter and 0.1 mg/L in the fourth quarter which are at concentration levels above the EPA RSL standard of 0.012 mg/L (Graph 9 in Section 11.0).

Method 8015B analysis for KA-3 indicated the following results: DRO indicated levels ranging from <1.0 mg/L first and second quarter and 3.0 mg/L in the third quarter and 1.7 mg/L in the fourth quarter exceeding the 0.2 mg/L NMED Table 2a, TPH Screening Guidelines for Potable Ground Water (GW-1). GRO also showed levels ranging from 0.47 mg/L first quarter to a high of 1.9 mg/L in the third quarter (Graph 10 in Section 11.0).

NAPIS-1 General chemistry parameters were below the applicable detectable standards with the exception of nitrates in the third quarter detected at 11.2 mg/L which is above the NMWQCC and EPA MCL standards of 1.0 mg/L. Nitrates also was detected at levels above the EPA MCL standards in NAPIS-1 in the second quarter at 2.0 mg/L to 11.2 mg/L in the third quarter. NAPIS-2 had a detectable level of fluoride in the fourth quarter at 1.7 mg/L and detectable chloride levels of 320 mg/L and 340 mg/L in the first and second quarter which are above the NMWQCC standard of 250 mg/L for chloride and 1.6 mg/L for fluoride. NAPIS 3 and KA-3 had chloride levels above the NMWQCC standard of 250 mg/L with a high concentration of 1100 mg/L in NAPIS-3 and KA-3.

Total metals analysis indicated levels below the NMWQCC standards for NAPIS- 1 except for uranium which was detected at 0.045 mg/L in the fourth quarter which is above the 0.03 mg/L NMWQCC and EPA MCL standards. NAPIS-2 had concentration levels of barium (2.07 mg/L), iron (4.71 mg/L) and manganese (1.25 mg/L) which were above the detectable levels of the NMWQCC and EPA MCL standards in the first quarter. In the first and second quarter, naphthalene was detected at concentrations of

3.6E-03 mg/L, first quarter and 0.089 mg/L in the fourth quarter which are above the EPA RSL standard of 1.4E-04 mg/L. Dissolved metals analysis in NAPIS-3 and KA-3 had detectable levels of uranium at 0.035 mg/L in NAPIS-3 and manganese level of 1.4 mg/L in KA-3 in the fourth quarter. VOC and SVOC indicated detectable levels of 1-methylnaphthalene in NAPIS-2 at 0.033 mg/L second quarter and NAPIS-3 had a detectable level of 0.05 mg/L in the second quarter (above the 2.3E-03 mg/L EPA MCL standard). Naphthalene was also detected in NAPIS-3 in the second quarter at 0.045 mg/L and KA-3 had detectable levels in the third and fourth quarter at 0.011mg/L and 0.013mg/L.

OW-1, OW-10

Prior to 2010, these wells were only visually inspected and water level measurement taken on a quarterly basis and no collection of ground water samples were required. In the approved 2010 FWGWMP, sampling is required on a quarterly basis in addition to checking water levels. In the first quarter, technician used the unapproved 2010 FWGWMP as the guideline for sampling and/or inspections. Ground water samples are analyzed for the following constituents: Major cations/anions, 8260B plus MTBE, 8015B and NMWQCC Metals. Ground water samples were taken on the following dates:

- OW-1, OW-10: 3/15/10, 9/21/10, 11/10/10 – Sampled
- OW-1, OW-10; 6/3/10 – Inspected

Dissolved metals analysis detected uranium levels in OW-1 at 3.79E-03 mg/L in the first quarter; 0.038 mg/L third quarter and 0.04 mg/L in the fourth quarter which were all above the NMWQCC and EPA MCL standards of 0.03 mg/L. Total metals ranged from 3.94E-03mg/L first quarter to 0.039 mg/L fourth quarter for uranium levels which are above the NMWQCC and EPA MCL standard of 0.03 mg/L.

In OW-10 dissolved metals analysis detected uranium levels at 4.97 E-03 mg/L first quarter; 0.051 mg/L third quarter and 0.052 mg/L in the fourth quarter which were all above the NMWQCC and EPA MCL standard of 0.03 mg/L. Total metals ranged from 5.25E-03 mg/L first quarter to 0.052 mg/L fourth quarter for uranium levels which are above the NMWQCC and EPA MCL standard of 0.03 mg/L.

OW-1 general chemistry analytical results were at or below non-detectable levels. In OW-10, chloride levels were detected at 790 mg/L in the third quarter and 450 mg/L in the fourth quarter which are above the NMWQCC standard of 250 mg/L. Method 8260B analysis indicated non-detectable levels for BTEX and VOC for both wells. OW-10 had detectable concentration levels of MTBE ranging from 0.033 mg/L in the first quarter, 0.037 mg/L in the third quarter and 0.036 mg/L in the fourth quarter which are at levels above the EPA RSL standard of 0.012 mg/L.

OW-11

OW-11 is sampled on an annual basis. Ground water samples are analyzed for the following constituents: Major cations/anions, 8260B plus MTBE, 8270 plus phenol, and NMWQCC Metals. Well was sampled on the following date:

- 7/28/10

Fluoride level was detected at 2.8 mg/L which is above the NMWQCC standard of 1.6 mg/L and sulfate was detected at 1100 mg/L above the NMWQCC standard of 600 mg/L. Uranium was also detected in OW-11 at 0.236 mg/L above the NMWQCC standard of 0.03 mg/L.

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

Ground water samples were collected from these wells on a quarterly basis for 2010 and analyzed for the following constituents: BTEX plus MTBE. These wells were sampled quarterly on the following dates:

- OW-13: 3/25/10, 6/7/10, 9/22/10 11/8/10
- OW-14: 3/24/10, 6/7/10, 9/22/10, 11/8/10
- OW-29: 3/25/10, 6/7/10, 9/22/10, 11/8/10
- OW-30: 3/24/10, 6/4/10, 9/27/10, 11/8/10
- Annual: 6/7/10

OW-14 in this group has shown an increase of benzene ranging from 3.4E-03 mg/L in 2006 to a level of 0.63 mg/L in November of 2010 (Graph 11 in Section 11.0). Ethyl benzene was detected at 2.5E-03 mg/L in the fourth quarter of 2006 and has been steadily increasing. Fourth quarter sampling indicated a concentration level of 0.018 mg/L in the fourth quarter of 2010 (Graph 12 in Section 11.0). Data gathered for MTBE also shows a steady increase from 0.016 mg/L in October of 2006 to a concentration level of 1.3 mg/L in November of 2010 which are at levels above the EPA RSL standard of 0.012 mg/L. (Graph 13 in Section 11.0).

OW-29 BTEX results for the past four years have shown non-detectable concentration levels. MTBE was detected in December 2007 at 4.3E-03 mg/l and over time has shown a steady increase with the most recent sampling results conducted in November of 2010 indicating a concentration level of 0.22 mg/L which is above the EPA RSL standard of 0.012 mg/L.

In the third quarter VOC results were as follows for OW-14: 1-methylnaphthalene concentration levels were 0.02 mg/L in the third quarter, 0.022 mg/L in the third and fourth quarter which are at levels greater than the EPA RSL standard of 9.7E-04 mg/L. Trace levels of 1,2,4-trimethylbenzene was detected at concentration levels of 1.1E-03 mg/L in the second quarter and 1.2E-03mg/L in the fourth quarter which are at levels below the EPA RSL standard of 0.015 mg/L; 1,2-dichloroethane (EDC) was detected at

concentration levels ranging from 1.5E-03 mg/L in the second quarter to 2.2E-03 mg/L in the third quarter and 1.5E-03 mg/L in the fourth quarter which are at levels above the the EPA RSL standard of 1.5E-04 mg/L. OW-14 also had concentration levels of isopropyl benzene in the second, third and fourth quarter ranging from 2.6E-03 mg/L to 3.7E-03 mg/L. Sec-butylbenzene was also detected at concentration levels ranging from 2.4E-03 mg/L in the second quarter, 2.8E-03 mg/L third quarter and 2.7E-03 mg/L in the fourth quarter.

SMW-2, SMW-4

SMW-2 and SMW-4 are sampled on an annual basis. Ground water samples were analyzed for the following constituents: Major cations/anions, 8260B plus MTBE, 8015B, NMWQCC Metals. In March 2010, the 10 year RCRA LTU (Land Treatment Unit) Post Closure sampling event was also conducted for well SWM-4. Wells were sampled on the following dates:

- SMW-2: 7/16/10 - Annual
- SMW-4: 3/1/10 – 10 Year RCRA LTU - Resample
  7/16/10 – Annual

SMW-2 is located on the southeast corner of the closed LTU and SMW-4 is located on the north side of the closed LTU. In SMW-2, MTBE was detected at 8.8E-03 mg/L which is below the EPA RSL standard of 0.012 mg/L. GRO in SMW-2 have ranged from 0.69 mg/L in January of 2008 to non-detectable level of <0.05 mg/L in July 2009. Total metals indicated detectable levels of chromium in SMW-2 at 0.093 mg/L and cyanide at 5.25E-03 mg/L which is above the NMWQCC of 0.2 mg/L. Diethylphthalate was detected at a concentration of 1.89E-03 mg/L during the annual sampling event in July 2010.

SMW-4 was re-sampled in March 2010 for the 10 year RCRA LTU Post Closure sampling event at the request of NMED. VOC and SVOC analysis were all at non-detectable levels. Total metals analysis resulted in a detectable concentration level of arsenic at 3.33E-03 mg/L which is above the EPA RSL standard of 4.5E-05 mg/L during the annual sampling event in July 2010. Chromium also had concentration levels below the NMWQCC standard of 0.05 mg/L during the March 2010 RCRA LTU Post Closure sampling event.

6.2 Wells with Constituent Levels below Standards

BW-1A, BW-1B, BW-1C

The boundary wells are sampled on an annual basis. Ground water samples were analyzed for the following constituents: Major cations/anions, 8260B plus MTBE, 8270 plus phenol and NMWQCC Metals. The boundary wells were inspected and sampled on the following dates:

- BW-1A: 7/14/10
- BW-1B: 7/14/10
- BW-1C: 7/15/10, 7/20/10 Re–sampled.

BW-1A and BW-1B depth to water measurements indicated that both of these wells were dry during the July 2010 annual sampling event. No samples were collected from BW-1A and BW-1B.

BW-1C was originally sampled on July 15, 2010, packaged and sent via Federal Express for overnight delivery. Samples did not arrive at the laboratory as scheduled the next day and shipments were tracked. Federal Express was unable to locate the samples and Gallup Refinery had to re-sample on July 20, 2010. Method analysis indicated non-detect for BTEX as well as VOCs. Fluoride had a detectable concentration level of 2.7 mg/L, chloride at 37 mg/L bromide at 0.11 mg/L and sulfate at 290 mg/L which are at concentration levels below the applicable standards. Metals analysis were also at non detectable levels except for manganese which had a concentration level of 8.3E-03 mg/L and uranium at 0.003 mg/L which are at levels below the applicable standards.

BW-2A, BW-2B, BW-2C

The boundary wells are sampled on an annual basis. Ground water samples were analyzed for the following constituents: Major cations/anions, 8260B plus MTBE, 8270 plus phenol and NMWQCC Metals. The boundary wells were inspected and sampled on the following dates:

- BW-2A: 7/15/10, 7/20/10 Re-sampled
- BW-2B: 7/15/10, 7/20/10 Re-Sampled
- BW-2C: 7/15/10, 7/20/10 Re–sampled.

Wells BW-2A. 2B and 2C were originally sampled on July 15, 2010, packaged and sent via Federal Express for overnight delivery. Samples did not arrive at the laboratory as scheduled the next day and shipments were tracked. Federal Express was unable to locate the samples and Western had to re-sample on July 20, 2010. Method analysis indicated non-detect for BTEX which are at concentration levels less than the applicable standards for all three wells. Metals analysis for BW-2A indicated concentration levels of barium below the NMWQCC standard of 1.0 mg/L. Analysis indicated concentration levels of iron in the following: BW-2A at 0.36 mg/L; BW-2B at 0.16 mg/L; BW-2C at 0.74 mg/L, which are at levels below the NMWQCC standards. Manganese was detected in BW-2A at 0.12 mg/L, BW-2B 0.22 mg/L and BW-2C at 0.033 mg/L. Uranium was also detected in BW-2B at 0.012 mg/L and in BW-2C at 0.006 mg/L which are at concentration levels below the NMWQCC standard. General chemistry parameters were below the applicable NMWQCC standards except for fluoride which had detectable concentration levels in all three wells above the NMWQCC standard of 1.6 mg/L Phosphorous was also detected at a concentration levels above the EPA RSL standard of 3.1E-04 for BW-2A at 0.68 mg/L.

BW-3A, 3B, BW-3C

The boundary wells are sampled on an annual basis. Ground water samples were analyzed for the following constituents: Major cations/anions, 8260B plus MTBE, 8270 plus phenol and NMWQCC Metals. The boundary wells were inspected and sampled on the following dates:

- BW-3A: 7/14/10
- BW-3B: 7/15/10, 7/20/10 Re-Sampled
- BW-3C: 7/15/10, 7/20/10 Re–sampled.

BW-3A depth to water measurement indicated no presence of water during the July 2010 annual sampling event and therefore no samples were collected for this well. Wells BW-3B and 3C were originally sampled on July 15, 2010, packaged and sent via Federal Express for overnight delivery. Samples did not arrive at the laboratory as scheduled the next day and shipments were tracked. Federal Express was unable to locate the samples and Gallup Refinery had to re-sample on July 20, 2010.

Method 8260B analysis indicated non-detect for both BTEX and VOC for wells BW-3B and BW-3C. Metals analysis for BW-3B indicate a concentration level of barium at 0.079 mg/L and 0.042 mg/L for BW-3C which are at concentration levels below the NMWQCC standard of 1.0 mg/L. Iron was also detected in BW-3B at 0.45 mg/L and 0.83 mg/L in BW-3C which are at concentration levels below the NMWQCC standard of 1.0 mg/L. Manganese was also detected at 0.074 mg/L in BW-3B and 0.021 mg/L in BW-3C at concentration levels below the NMWQCC standard of 0.2 mg/L. General chemistry parameters were below the applicable NMWQCC standards except for detectable levels of fluoride at 1.4 mg/L in both BW-3B and BW-3C. Phosphorous was also at a detectable level at 1.1 mg/L in BW-3B above the EPA RSL standard of 3.1E-04 mg/L.

GWM-2, GWM-3

GWM-2 and GWM-3 are inspected on a quarterly basis. If either one of these wells indicate a water level during a quarterly inspection, the information is reported to NMED and OCD within 24 hours of finding. If there is a sufficient water level, samples are then collected and analyzed for 8260B plus MTBE, 8015B, and major cations/anions. Quarterly water level measurement inspections and sampling were completed on the following dates:

- GWM-2: 9/16/10, 10/4/10 – Sampled
- GWM-2: 3/3/10, 6/3/10, 6/10/10, 9/16/10, 9/28/10, 10/4/10, 10/12/10, 10/20/10, 11/2/10
- GWM-3: 9/16/10, 10/4/10 – Sampled
- GWM-3: 3/3/10, 6/3/10, 6/10/10, 9/16/10, 9/28/10, 10/4/10, 10/12/10, 10/20/10, 11/2/10 – Inspected.

During the second quarterly inspections of GWM-2 and GWM-3, both wells were found to have a water level. Notification was given to NMED and OCD on June 4, 2010. At the time of the discovery, it was determined that the water level was not significant enough to obtain samples. Per NMED, the wells were purged dry. Wells were checked on June 10, 2010 and no water level was detected.

In the third quarter GWM-2 and GWM-3 both indicated a water level. NMED and OCD were notified of finding. Samples were obtained from GWM-2 and GWM-3 and both wells were purged of the remaining water. Per NMED the water levels were checked weekly from September through November 2010 and information was transmitted to NMED. Weekly checks were completed on November 2, 2010. Based on the weekly checks it was determined that there was no significant change in the water level in both wells. Weekly checks were discontinued.

Fourth quarter inspections continued to show the presence of water in both wells. Weekly checks from the third quarter carried over into the fourth quarter. Samples were collected from both wells and purged dry of remaining water. Last inspection on both wells occurred on November 2, 2010 which indicated a water level but not enough to purge wells dry. Notification of inspection was given to NMED and OCD.

Method 8260B analysis indicated non-detectable levels for BTEX and VOC for GWM-2 and GWM-3. MTBE was detected in GWM-2 at 0.011 mg/L and GWM-3 at 9.2E-03 mg/L which is at concentration levels below the EPA RSL standard of 0.012 mg/L. Bromide was also detected in GWM-2 at 3.4 mg/L and 2.5 mg/L in GWM-3.

MW-1, MW-4, MW-5

The monitoring wells (MW) are sampled on an annual basis. Ground water samples were analyzed for the following constituents: Major cations/anions, 8260B plus MTBE and NMWQCC Metals. The monitoring wells were inspected and sampled on the following dates:

- MW-1: 7/16/10
- MW-4: 7/19/10
- MW-5: 7/19/10

These wells are also part of the RCRA 10 Year Post Closure Sampling Schedule. Ground water samples were analyzed for General Chemistry, RCRA list constituents (total and dissolved), including mercury and cyanide, VOC, SVOC including TPH. NMED requested that these wells be re-sampled as the soil sampling portion of the RCRA 10 Year Post Closure Sampling event was completed in December of 2009. Wells were sampled on the following dates:

- MW-1: 3/1/10
- MW-4: 3/2/10
- MW-5: 3/1/10

BTEX plus MTBE and method 8015B analysis indicated non-detectable levels for all three wells during the March and July sampling events. Arsenic was the only metal detected in all three wells; MW-1 at 1.46E-03 mg/L, MW-4 at 1.17E-03 mg/L and MW-5 at 1.36E-03 mg/L during the July 2010 sampling event. Acetone was detected in MW-5 at 3.36E-03 mg/L in MW-5 during the March 2010 sampling event. Hall Laboratory analysis indicated a concentration of acetone detected in the trip blanks which may indicate possible contamination from the laboratory. Acetone detected at 3.36E-3 mg/L in MW-5 may be a result of contamination from the laboratory as the trip blank did show levels of acetone.

MW-2

This well is sampled per the RCRA 10 Year Post Closure Sampling Schedule. Ground water samples were analyzed for General Chemistry, RCRA list constituents (total and dissolved), including mercury and cyanide VOC, SVOC including TPH. NMED requested that this well be re-sampled as the soil sampling portion of the RCRA 10 Year Post Closure Sampling event was completed in December of 2009. MW-2 was sampled on the following date:

- MW-2: 3/1/10

BTEX plus MTBE analysis indicated non-detectable levels for MW-2. Acetone was detected at 2.73E-03 mg/L which may be contamination from the laboratory as the trip blank did show levels of acetone as indicated on the laboratory analysis.

OW-1 and OW-10

These wells were visually checked and water level measurement taken on a quarterly basis prior to the approval of FWGWMP (August 25, 2010). The approved 2010 FWGWMP (August 25, 2010) requires these wells to be sampled on a quarterly basis. Ground water samples are analyzed for the following constituents: Major cations/anions, 8260B plus MTBE, 8015B and NMWQCC Metals. In the first quarter, technician used the unapproved 2010 FWGWMP as the guideline for sampling. Ground water samples were taken on the following dates:

- OW-1, OW-10: 3/15/10, 9/21/10, 11/10/10 – Sampled
- OW-1, OW-10; 3/3/10, 6/3/10, 9/21/10, 11/10/10 – Inspected

These wells are visually checked and water level measurement taken on a quarterly basis. Findings are logged and kept on file (copies of quarterly inspection are in Appendix C). BTEX results indicated non-detectable levels for both OW-1 and OW-10 for 2010; however MTBE was detected at 0.033 mg/L in the first quarter and 0.036 mg/L in the fourth quarter. OW-1 and OW-10 general chemistry parameters were non-detect except for high levels of chloride (790 mg/L and 450 mg/L) in the third and fourth quarters.

OW-11

OW-11 is sampled on an annual basis. Ground water samples are analyzed for the following constituents: Major cations/anions, 8260B plus MTBE, 8270 plus phenol, and NMWQCC Metals. Well was sampled on the following date:

- 7/28/10

BTEX plus MTBE concentrations levels indicated non-detect. General chemistry results indicated concentration levels of chloride at 89 mg/L, bromide at 0.21 mg/L and nitrate at 0.3 mg/L which are at concentration levels below the NMWQCC standards Total metals analysis indicated a detectable level of manganese at 0.016 mg/L and potassium at 1.8 mg/L which are below the applicable standards.

OW-12

OW-12 is sampled on an annual basis. Ground water samples are analyzed for the following constituents: 8260B plus MTBE. This well was sampled on the following date:

- 7/22/10

During the annual sampling method 8021B was mistakenly requested for analysis instead of method 8260B plus MTBE. Gallup Refinery did not catch this oversight and therefore did not gather another sample for re-analysis. BTEX plus MTBE concentrations were at no detectable levels.

OW-50, OW-52

OW-50 and 52 are sampled on a quarterly basis. Ground water samples are analyzed for the following constituents: 8260B plus MTBE, 8270 plus phenol, 8015B, General Chemistry and NMWQCC Metals. Wells were sampled on the following dates:

- OW-50: 3/16/10, 6/1/10, 9/27/10, 11/9/10
- OW-52; 3/16/10, 6/1/10, 9/27/10, 11/9/10

Both of these wells were installed in October 2009 to monitor the possible migration of MTBE from up-gradient wells OW-14, 29 and 30. 2010 analysis of BTEX and MTBE parameters indicate non-detect in all four quarters in 2010. Method analysis also indicated non-detectable levels as well as method 8270C. Trace level of bis (2-ethylhexyl) phthalate was detected in OW-50 during the first quarter sampling at 0.011 mg/L and non-detectable levels for the second, third and fourth quarters. General chemistry parameters such as fluoride, chloride, bromide, sulfate all had concentrations levels below the NMWQCC detectable standards.

PW-2, PW-3, PW-4

These wells are on a 3 year sampling schedule beginning in 2008 for PW-2 and PW-3 and a start year of 2007 for PW-4. PW-3 sampling scheduled was changed to annual sampling in 2009 as directed per NMED's Comment 12 of the May 16, 2011 NOD (May 2011 NOD) for the Annual Ground Water Monitoring Report: Gallup Refinery 2009. Ground water samples are analyzed for the following constituents: 8260B plus MTBE, 8270 plus phenols, NMWQCC Metals, cyanide and nitrates. The wells were sampled on the following dates:

- PW-2: 9/12/08.
- PW-3: 9/23/10, 11/1/10.
- PW-4: 7/28/10

PW-2 is scheduled to be sampled in 2011. PW-4 annual sample collection resulted in non-detectable levels for BTEX, MTBE, 8260B and 8270 parameters. Metals analysis indicated detectable levels of iron at 0.23 mg/L, manganese at 0.044 mg/L and uranium at 2.1E-03 mg/L which are at levels below the applicable standards. PW-3 metals analysis resulted in trace amounts of uranium at 0.001 mg/L, 4.6E-03 mg/L of manganese, 0.47 mg/L for iron and zinc at 0.037 mg/L.

PW-3 annual sampling was not collected in 2009 because directive from NMED was not communicated to technician who is responsible for sampling. In 2007 2-methyl-naphthalene was detected in PW-3 at a concentration level of 0.032 mg/L which is below the EPA RSL standard of 0.15 mg/L. PW-3 was re-sampled in 2008 along with a blind duplicate and results were non-detect. In 2010 lab analysis indicated non-detect for 8260B and 8270 parameters. Total metals analysis had detectable concentration levels of copper at 0.032 mg/L, iron at 0.47 mg/L, lead at 7.4E-03 mg/L, manganese at 4.6E-03 mg/L, uranium at 0.001 mg/L and zinc at 0.037 mg/L which are at levels below the NMWQCC applicable standards. PW-3 will continue to be sampled on an annual basis unless otherwise directed by NMED.

Annual sampling for PW-4 indicated non-detectable levels of BTEX constituents. Anions indicated a detectable level of nitrate at 0.14 mg/L which is below the NMWQCC standard if 10 mg/L. Total metals had detectable concentration levels of iron at 0.23 mg/L, manganese 4.40E-03 mg/L and uranium at 2.1E-03 mg/l which are at levels below the NMWQCC applicable standards.

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

These recovery wells are monitored on a quarterly basis for depth to water measurements, and depth to product measurements where applicable. Product recovery is also done on a quarterly basis on RW-1, RW-5 and RW-6. The wells were inspected on the following dates.

- RW-1: 3/3/10, 6/3/10, 9/20/10, 11/3/10
- RW-2: 3/3/10, 6/3/10, 9/20/10, 11/3/10
- RW-5: 3/3/10, 6/3/10, 9/20/10, 11/3/10
- RW-6: 3/3/10, 6/3/10, 9/20/10, 11/3/10

During quarterly inspections RW-1 product recovery is conducted using a portable 2-inch bladder pump. Purge water is collected in a 55 gallon drum, the top visible layer of hydrocarbon is measured and volume is an estimated calculation. The purged water is disposed of upstream of the NAPIS. RW-1 has shown a steady decrease of hydrocarbon levels. Total year to date hydrocarbon recovery is 0.66 gallons compared to 2009 where 1.78 gallons of hydrocarbons was recovered from RW-1 RW-2 has not shown any hydrocarbon levels during quarterly inspections and therefore no product recovery is done at this well RW-5 has shown a steady decrease of hydrocarbon levels as well as RW-6. Each well is purged using a 3 foot disposable bailer and purge water is collected in a 5 gallon bucket. Visible layer of hydrocarbon is estimated and calculated. Purged water is disposed of upstream of the NAPIS. In 2010, RW-5 inspections have indicated that there is no measureable hydrocarbon layer in this well. RW-6 has also shown a decrease in hydrocarbon recovery. Total year to date hydrocarbon recovery for RW-6 is 0.15 gallons.

6.3 Evaporation Ponds, Influents, Effluents, Boiler Water to EP-2 and Leak Detection Units – Constituent Levels.

Evaporation Ponds 1 through 12B

Evaporation ponds (EP) 1 thru 8 were sampled on an annual basis as directed by the 2009 FWGWMP. In 2010, the approved FWGWMP (August 25, 2010) added ponds 9a, 11, 12A and 12B to the monitoring schedule as well as sampling frequency was changed to semi-annual. Evaporation pond water samples are analyzed for the following constituents: General Chemistry, 8260B plus MTBE, NMWQCC metals, 8270 plus phenol, BOD, COD, E-Coli Bacteria. The ponds were sampled on the following dates:

- EP-1 thru EP-12B: 4/20/10, 4/21/10, 8/2/10, 8/3/10, 11/16/10, 11/17/10

Technician used the unapproved 2010 FWGWMP as a guideline for sampling activities at the beginning of 2010. Samples were collected in April 2010 and annual samples were collected in August 2010. As per the approved 2010 FWGWMP (August, 25, 2010), the semi-annual sampling was conducted on November 11, 2010. Samples were collected at the inlet to each pond as required.

Method analysis indicated non-detect levels of concentrations in EP-1 thru 12B. EP-2 had a detectable level of toluene at 0.003 mg/L, 1.9E-03 mg/L of ethyl benzene and 0.015 mg/L of total xylene. EP-3 also had detectable level of toluene at 1.2E-03mg/L and 5.7E-03 mg/L total xylene. General chemistry parameters for EP-1 thru 12B had detectable levels of fluoride all above the NMWQCC standard of 1.6 mg/L. Chloride levels were also above the applicable NMWQCC standard of 250 mg/L for EP-2 thru EP-

12B. Sulfate levels also were above the NMWQCC standard of 600 mg/L in EP-1 thru EP-12B.

Biological Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) analytical results for EP-1 thru EP-12B all exceeded the NMWQCC applicable standards. E-Coli results for EP-2 thru EP-6 and EP-12B also were above the NMWQCC applicable standards. Chromium, iron, manganese and mercury were at concentration levels above the applicable standards during 2010 for EP-1 and EP-2. EP-3 thru EP-5, and EP-11 also had detectable levels of chromium, iron and manganese. EP-6 and EP-8 had detectable levels of arsenic and manganese at levels above the applicable standards for 2010. EP-12A and EP-12B had detectable levels of iron and manganese for 2010.

Method 8270 analysis detected concentration levels of aniline in EP-1 thru EP-6 and in EP-12A at concentrations above the EPA RSL standard of 0.012 mg/L. Bis (2-ethylhexyl) phthalate was detected in EP-4, EP-6, EP-7, and EP-9a at levels above the EPA RSL standard of 7.2E-05 mg/L. 2, 4-dimethylphenol was detected in EP-1 above the EPA RSL standard of 0.27 mg/L and trace levels detected in EP-2 thru EP-5. Fluorene, 2-methylphenol, 3+4 methylphenol, phenanthrene and pyrene all showed detectable levels in EP-1 thru EP-6, EP-12A and EP-12B. 2-methyl naphthalene was detected in EP-1 and EP-2 at levels above the EPA RSL standard of 0.027 mg/L. Naphthalene was also at detectable levels in EP-1 and EP-2 which were above the applicable EPA RSL standard of 1.4E-04 mg/L. Phenol was also detected in EP-1 thru EP-6 and also in EP-12A and EP-12B. VOCs were detected in EP-1 thru EP-12B, namely 1,2,4-Trimethylbenzene, naphthalene, 1-methylnaphthalene and 2-methylnaphthalene at concentrations levels above the applicable standards.

Influents: Infl to AL-1; Infl to AL-2; Infl to EP-1; BW to EP-2

These outfalls are sampled on a quarterly basis. Boiler Water (BW) to Evaporation Pond 2 (EP-2) is sampled on a semi-annual basis. Pond water is analyzed for the following constituents. Influent to AL-1 and AL-2: 8260B plus MTBE, BOD, COD, Chloride, 8015B, pH and Phenol. Influent to EP-1: Major cations/anions, pH, BOD, COD, 8260B plus MTBE, 8270 plus phenol, 8015B, and NMWQCC Metals. BW to EP-2 is sampled for major cations and major anions. Influents were sampled on the following dates:

- Influent to AL-1 (Infl to AL-1): 3/9/10, 6/7/10, 9/13/10, 11/3/10
- Influent to AL-2 (Infl to AL-2): 3/9/10, 6/7/10, 9/13/10, 11/3/10
- Influent to EP-1 (Infl to EP-1): 3/10/10, 6/28/10 ,9/13/10, 11/3/10
- Boiler Water Inlet to EP-2 (BW to EP-2): 4/20/10, 6/28/10, 11/16/10

General chemistry parameters analyzed for Infl to AL-1 and AL-2 detected the following: Fluoride concentration level detected at 95 mg/L in Infl to AL-1and 160 mg/L in Infl to AL-2. Chloride was also detected in Infl to AL-1 at 250 mg/L in the fourth quarter, 260 mg/L in the third quarter and 280 mg/L in the first quarter. Chloride was detected at 260 mg/L in the first quarter, 240 mg/L in the third quarter and 210 mg/L in the fourth quarter for Infl to AL-2. Sulfate concentration level detected at 950 mg/L in Infl to AL-1 and

990 mg/L in Infl to AL-2. DRO was detected from a low of 1.3 mg/L to a high of 60 mg/L in Infl to AL-2. DRO in Infl to AL-2 detected levels ranging from 60 mg/L first quarter to 8.1 mg/L in the fourth quarter. BOD and COD concentration levels for both Infl to AL-1 and AL-2 all were above the NMWQCC standard for all four quarters in 2010.

The following VOCs were detected in Infl to AL-1 at concentration levels above the NMWQCC and the EPA RSL applicable standards: 1,2,4-Trimethylbenzene, 1,3,5-trimethylbenzene, naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene were detected in the first, third and fourth quarter of 2010. Acetone, 2-butanone, isopropyl benzene, n-butylbenzene, n-propylbenzene and sec-butylbenzene were all detected at concentration levels below the applicable standards for 2010.

The following SVOCs were detected in Infl to AL-1 at concentration levels above the NMWQCC and the EPA RSL applicable standards: Aniline, 2,4-dimethylphenol, 2-methylnaphthalene, naphthalene and phenol were detected in 2010. Benzoic acid, 2-methylphenol, 3+4-methylphenol and phenanthrene were all detected at concentration levels below the applicable standards for 2010.

The following VOCs were detected in Infl to AL-2 at concentration levels above the NMWQCC and the EPA RSL applicable standards: 1,2,4-Trimethylbenzene, naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene were detected in the first and fourth quarter of 2010. 1,3,5-trimethylbenzne, acetone, and 2-butanone were all detected at concentration levels below the applicable standards for 2010.

The following SVOCs were detected in Infl to AL-2 at concentration levels above the NMWQCC and the EPA RSL applicable standards: Aniline, 2,4-dimethylphenol and phenol were detected in 2010. Benzoic acid, 2,4-dimethylphenol, 2-methylphenol, 3+4-methylphenol and phenanthrene were all detected at concentration levels below the applicable standards for 2010.

In Infl to EP-1 fluoride levels ranged from 66 mg/L to 100 mg/L and chloride ranged from 440 mg/L first quarter to 220 mg/L in the fourth quarter. Sulfate ranged from a low of 920 mg/L to a high of 2000 mg/L in the second quarter. Nitrite concentration levels also ranged from 1.6 mg/L first quarter to 1.5 mg/L in the third quarter. Phosphorous was also detected at a concentration level of 2.5 mg/L which is above the EPA RSL standard of 3.1E-04 mg/L in the first quarter of 2010. DRO concentration levels ranged from 150 mg/L first quarter to 45 mg/l in the fourth quarter. BOD and COD concentration levels were above the NMWQCC standard for all four quarters for Infl to EP-1.

The following VOCs were detected in Infl to EP-1 at concentration levels above the NMWQCC and the EPA RSL applicable standards: 1, 2,4-Trimethylbenzene, naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene were detected in the first quarter of 2010. Acetone and 2-butanone were all detected at concentration levels below the applicable standards for 2010.

The following SVOCs were detected in Infl to EP-1 at concentration levels above the NMWQCC and the EPA RSL applicable standards: Aniline, 2, 4-dimethylphenol, 2-methylnaphthalene, and phenol were detected in 2010. Benzoic acid, 2-methylphenol, 3+4-methylphenol and phenanthrene were all detected at concentration levels below the applicable standards for 2010.

Metals analysis for Infl to EP-1 had concentration levels above the applicable standards for arsenic, chromium, iron and manganese. Barium, copper, lead, selenium, mercury, uranium and zinc were also detected at concentrations below the applicable standards for 2010.

Effluents: AL-2 to EP-1; Pilot Effluent, NAPIS Effluent

The effluents are sampled on a quarterly basis. Pilot Effluent is sampled for the following constituents: 8260B plus MTBE, 8015B, BOD, COD and NMWQCC Metals. NAPIS Effluent is sampled for the following constituents: General chemistry, 8260B plus MTBE, 8270 plus phenol, 8015B and NMWQCC Metals. AL-2 to EP-1 is sampled for the following constituents: Major cations/anions, 8260B plus MTBE, 8270 plus Phenol, 8015B and NMWQCC Metals. The effluents were sampled on the following dates:

- AL-2 to EP-1: 3/9/10, 6/8/10, 9/13/10, 11/3/10
- Pilot Effluent: 3/10/10, 6/28/10, 9/16/10, 9/20/10, 11/3/10
- NAPIS Effluent: 3/9/10, 6/8/10, 9/13/10, 11/3/10

In Al-2 to EP-1, concentration levels for BTEX and MTBE were all at non-detectable and/or below the applicable standards for 2010. General chemistry parameters that were above the applicable standards were as follows: fluoride, chloride, nitrite and sulfate. Nitrate was also detected at concentration levels below the applicable standards. DRO concentration levels were above the applicable standard for all four quarters ranging from 190 mg/L in the first quarter to 98 mg/L in the fourth quarter.

Pilot Effluent also had non-detectable concentration levels for BTEX and MTBE for all four quarters of 2010. DRO concentration levels were above the applicable standard for all four quarters ranging from 28 mg/L in the first quarter to 15 mg/L in the fourth quarter. BOD and COD concentration levels were above the applicable standards for all four quarters for 2010.

NAPIS Effluent had detectable concentration levels of benzene ranging from first quarter of 13 mg/L to fourth quarter at 4.2 mg/L; toluene at 26 mg/L first quarter to 12 mg/L in the fourth quarter; ethyl benzene at 2.7 mg/L first quarter to 1.5 mg/L in the fourth quarter; total xylene ranged from 14 mg/L in the first quarter to 8.4 mg/L in the fourth quarter, which were above the applicable standards. MTBE was at non-detectable levels for all four quarters of 2010. General chemistry parameters that were above the applicable standards were as follows: fluoride, chloride, nitrite, nitrate and sulfate.

Bromide was also detected at concentration levels below the applicable standards. DRO concentration levels were above the applicable standard for all four quarters ranging from 99 mg/L in the first quarter to 68 mg/L in the fourth quarter.

Leak Detection Units (LDU): East LDU, West LDU, Oil Sump LDU

The LDU or otherwise known as the NAPIS secondary containment units identified as East LDU, West LDU and Oil Sump LDU, are a new addition to the approved 2010 FWGWMP (August 25, 2010). These units are sampled/inspected on a quarterly basis. At the beginning of 2010, the unapproved 2010 FWGWMP guideline was used on these units. LDUs are sampled for the following constituents: 8021B plus MTBE, 8015B and NMWQCC Metals. The units were sampled on the following dates:

- East LDU: 3/18/10, 9/20/10, 11/11/10
- West LDU: 3/19/10, 9/20/10, 11/11/10
- Oil Sump LDU: 3/18/10, 9/20/10, 11/11/10

Concentration levels of BTEX were above the NMWQCC standards for all three LDU units for 2010. MTBE concentration levels were all at non-detectable levels for 2010 for all units. DRO concentration levels were above the applicable standards for all three units for 2010. Method 8260B analysis indicated concentration levels above the applicable standards for 1, 2, 4-trimethylbenzene, and 1, 3, 5-trimethylbenzene in the third quarter. Concentration levels above the applicable standards for metals included barium, chromium, iron and manganese for East LDU; chromium, iron and manganese for West LDU and arsenic, barium, chromium, copper, iron, lead, manganese, mercury, uranium and zinc for the Oil Sump LDU.

Boiler Water to Evaporation Pond 2 (BW to EP-2)

BW to EP-2 is sampled on a semi-annual basis and sampled for the following constituents: Major cations and anions. BW to EP-2 was sampled on the following dates:

- BW to EP-2: 4/20/10, 6/28/10, 11/16/10

BW to EP-2 general chemistry analysis indicated concentrations levels above the applicable standards for fluoride, chloride and sulfates for 2010. Bromide and nitrate also was detected at concentration levels below the applicable standards for 2010. Calcium, magnesium, potassium and sodium were detected in BW to EP-2 for 2010.

Evaporation Pond 2 Inlet (EP-2 Inlet)

EP-2 Inlet is sampled on an annual basis and sampled for the following constituents: 8260B plus MTBE, 8015B, BOD, COD and TDS. EP-2 Inlet was sampled on the following date:

- EP-2 Inlet: 7/21/10

Concentration levels of BTEX and MTBE were all below the NMWQCC standards. DRO was detected at 21 mg/L and TDS was detected at 4120 mg/L. BOD and COD concentration levels were above the applicable standards at 1400 mg/L for BOD and 3200 mg/L for COD. Method analysis all indicated concentration levels below the applicable standards with only acetone being detected at 0.49 mg/L which is below the EPA RSL standard of 12 mg/L.

6.3 Deviations from OCD Groundwater Discharge Permit GW-032

The approved 2010 FWGWMP (August 25, 2010) guidelines included additions and changes to sampling locations compared to the 2009 FWGWMP. The following sampling locations were added to the approved 2010 FWGWMP; EP-9a, EP-11, EP-12A and EP-12B and sampling frequency was changed to semi-annual versus annual. Sampling and inspection guidelines for OW-1 and OW-10 were also changed. In the approved 2010 FWGWMP samples are required to be collected on a quarterly basis from these two wells. Previously these wells were only inspected for water level. The three leak detection units were also added to sample and inspect on a quarterly basis.

At the beginning of 2010 Western used the unapproved 2010 FWGWMP as the guideline for sampling/inspections. The inspections and sampling frequencies varied from the 2009 FWGWMP which explains sample results recorded in the first quarter for locations which required quarterly or semi-annual sampling. PW-3 well had shown a suspect level of 2-methylnaphthalene (0.032 mg/L) from a sample collected in 2007. In 2008 Gallup Refinery collected an additional sample from this well, along with a blind duplicate and results were non-detect. Due to the detection of 2-methylnaphthalene in 2007, PW-3 will continue to be sampled on an annual basis as directed per NMED's Comment 12 of the May 16, 2011 NOD (May 2011 NOD) for the Annual Ground Water Monitoring Report: Gallup Refinery 2009.

All other outfalls required to be sampled under the OCD Ground Water Discharge permit GW-032, were monitored as required and the data have been presented in Section 8.0 and Appendix L.

7.0 Conclusions

This section is an overview of conclusions for the monitoring program required by the permit.

Ground Water Monitoring

There are a total of thirty-six monitoring wells distributed within the boundaries of the refinery of which, sixteen monitoring wells are located along the perimeter of the aeration lagoons and evaporation ponds. There are two major sections of the refinery which we have defined as the East and West side for periodic monitoring.

East Side Ground Water

Ground water monitoring activities on the East side have shown that MTBE is present in all four well locations (OW-13, OW-14, OW-29, and OW-30) which are located on the northeast corner of the active refinery perimeter. In three wells OW-14, OW-29 and OW-30, concentration levels of MTBE are as follows: OW-14, MTBE ranged from 1.5 mg/L first quarter to a level of 1.3 mg/L fourth quarter. OW-29, MTBE ranged from 0.12 mg/L to 0.22 mg/L in the fourth quarter. OW-30, MTBE remains steady at 1.1 mg/L for all four quarters. All detectable concentration levels of MTBE are above the EPA RSL of 0.012 mg/L. In March of 2010 dedicated pumps were installed in all four wells to prevent possible cross contamination from using a portable submersible pump even though the pump was decontaminated and rinsed (three times) with an Alconox mixture before each use. Two new wells (OW-50 and OW-52) were installed in October 2009 down gradient of OW-13, OW-14 and OW-29 to monitor possible migration of MTBE from these wells. 2010 BTEX and MTBE analysis all showed non-detectable levels for the year.

Within the perimeter of the active refinery in this north-east section, there are four shallow recovery wells (RW-1, RW-2, RW-5 and RW-6) from which SPH has been recovered and continues to be recovered. Of these wells RW-2 has shown no product level and RW-5 inspections for 2010 has shown no detectable hydrocarbon level. RW-1 and RW-6 are the only two recovery wells where hydrocarbons are recovered on a quarterly basis. In 2010 a total of 0.66 gallons of product was recovered from RW-1 compared to 1.78 gallons in 2009. RW-6 had a total of 0.15 gallons of product recovered in 2010 compared to 22 gallons recovered in 2009.

West Side Monitoring

The West side consists of ground water monitoring wells near the aeration lagoons and alongside a series of large evaporation ponds. Immediately down gradient of the NAPIS, benzene, ethyl benzene and MTBE have been detected in NAPIS-2 and NAPIS-3 at concentration levels above the NMWQCC standards. Laboratory analysis indicate for 2010 that benzene levels in NAPIS-2 have been on the slight decline with first quarter

results at 0.83 mg/L and fourth quarter results at 0.015 mg/L for NAPIS-2. In NAPIS-3 benzene was detected in the first quarter at 0.072 mg/L, 0.2 mg/L in the second quarter and in the third quarter at 0.001 mg/L which is below the NMWQCC standard. Ethyl benzene concentrations levels in NAPIS-2 has fluctuated with first quarter results at 0.016 mg/L and the fourth quarter indicating no-detectable levels. In NAPIS-3 ethyl benzene was detected for the first time in the first quarter at 0.001 mg/L. Second quarter also detected ethyl benzene concentration level of 0.012 mg/L and for the remainder of the year, no detectable level was recorded. MTBE concentration levels have remained steady in NAPIS-2 with fourth quarter recording the highest level at 0.27 mg/L for 2010. In NAPIS-3 there was a detectable level of MTBE for the first time in the second quarter at 0.08 mg/L. KA-3 also had detectable levels of benzene, ethyl benzene in the third and fourth quarter which was at a concentrations level above the EPA RSL standards. MTBE has been detected in the third and fourth quarter at levels above the EPA RSL standard of 0.012 mg/L. First and second quarter indicated no detectable levels of MTBE for KA-3.

Chloride concentration levels in NAPIS-2, NAPIS-3 and KA-3 are above the NMWQCC standards of 250 mg/L. DRO levels in NAPIS 2 are also above the NMWQCC standard of 0.2 mg/L for 2010. 1, 1-dichloroethane was also detected in NAPIS 1 and NAPIS-2 during the first quarter 2010 at a concentration level of 2.8E-03 mg/L which is above the EPA RSL standard of 2.4E-03 mg/L.

Monitoring of GWM-1 in 2010 has indicated that concentration levels of benzene are slightly declining. First quarter concentration level was 0.012 mg/L and fourth quarter came in at 6.9E-03 mg/L. . MTBE levels have fluctuated from quarter to quarter with the highest concentration level detected in the first quarter at 0.078 mg/L and the lowest in the fourth quarter at 0.053 mg/L. GWM-2 and GWM-3 are also monitoring wells located on the west side of the aeration lagoons and EP-1. In June of 2010 water was discovered in both wells during a quarterly inspection. Notification was given to NMED and OCD of finding and the water level in both wells was not enough to gather a sample. During the third quarter inspections water was again detected in both wells and NMED required weekly water level gauging in both wells. Weekly checks were discontinued in October. The continued presence of water in GWM-2 and GWM-3 may be a result of the fluctuation of ground water levels. The water level thickness in GWM-2 has not been any greater than 1.7 feet and in GWM-3 has been less than 1 foot.

Also located on the West side are a series of monitoring wells. Among this group of wells, BW-1C, BW-2B, BW-2C and SMW-2, fluoride concentration levels above the NMWQCC has been detected in 2010.. Some of the monitoring wells (MW, SMW) have shown traces of hydrocarbons at levels below the NMWQCC and/or EPA RSL standards. Traces of SVOC were detected in MW-1, MW-2, MW-5 and in SMW-2. Diethylphthalate was detected in SMW-2 at a concentration level of 1.89E-03 mg/L and in MW1 at 1.03E-3 mg/L.

Additional Monitoring

As part of our Ground Water Discharge Permit GW-032, additional reporting is required on an annual basis and is provided in this report. This reporting includes:

- Monitoring of the aeration lagoons, ponds and outfalls between the lagoons and ponds on a quarterly and semi-annual basis.
- Summary of Waste Water Treated and Water Balance
- Summary of Underground Waste Water Lines Tested
- Summary of all EPA/NMED/RCRA Activity
- Major Refinery Activities and Events
- Summary of all Leaks, Spills and Releases
- Perimeter Inspections
- Temporary Land Farm Monitoring
- Monthly Flow Rate to NAPIS

7.1 Recommendations

- Continue the monitoring program as specified in the current OCD Ground Water Discharge Permit GW-032, and various requirements specified in directives from the NMED HWB.
- Include the requirements of the Facility Wide Ground Water Monitoring Work Plan approved by NMED on August 25, 2010 to the program as soon as practical.
- Submit the 2010 Annual Ground Water Monitoring Report on or before September 1, 2011.

8.0 Data Tables

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8.1 Effluents (AL-2 TO EP-1, Pilot Effluent, NAPIS Effluent
BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			**0.01**	**0.75**	**0.75**	**0.62**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**0.005**	**1**	**0.7**	**10**	**NE**
EPA RSL for Tap Water (April 2012)			**3.9E-04**	**0.86**	**1.3E-03**	**0.19**	**0.012**
SAMPLE ID	**DATE SAMPLED**	**METHOD**					
AL-2 to EP-1	11/3/2010	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	9/13/2010	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	6/8/2010	8260B	<0.01	<0.01	<0.01	<0.0015	<0.01
	3/9/2010	8260B	<0.005	0.011	<0.005	0.013	<0.005
	11/10/2009	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	8/19/2009	8260B	<0.005	4.4E-03	**1.4E-03**	0.011	<0.005
	5/26/2009	8260B	<0.005	<0.005	<0.005	7.3E-03	<0.005
	3/31/2009	8260B	<0.005	<0.005	<0.005	0.03	<0.005
	12/2/2008	8260B	**0.012**	0.085	**0.028**	0.021	<0.005
	9/9/2008	8260B	<0.02	<0.02	<0.02	<0.03	<0.02
	6/17/2008	8260B	<0.005	<0.005	<0.005	<0.005	<0.005
	3/10/2008	8260B	**0.19**	0.46	**0.099**	**0.68**	<0.01
Pilot Effluent	11/3/2010	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	9/16/2010	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015
	6/28/2010	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	3/10/2010	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	11/10/2009	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	8/19/2009	8260B	<0.005	3.8E-03	<0.005	<0.0075	<0.005
	5/27/2009	8260B	<0.005	4.5E-03	<0.005	<0.0075	<0.005
	3/31/2009	8260B	<0.005	6.8E-03	<0.005	<0.0075	<0.005
	12/2/2008	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	9/9/2008	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	6/17/2008	8260B	<0.001	6.2E-03	<0.001	<0.0015	<0.001
	3/11/2008	8260B	<0.001	1.5E-03	<0.001	<0.0015	<0.00
NAPIS Effluent	11/3/2010	8260B	**4.2**	**12**	**1.5**	**8.4**	<0.1
	9/13/2010	8260B	**12**	**30**	**2.8**	**17**	<0.1
	6/8/2010	8260B	**1.5**	**6.0**	**0.67**	**3.8**	<0.05
	3/9/2010	8260B	**13**	**26**	**2.7**	**14**	<0.05
	11/10/2009	8260B	**5.9**	**16**	**1.6**	**9.4**	<0.05
	8/19/2009	8260B	**2.6**	**7.1**	**0.71**	**4.2**	<0.05
	5/26/2009	8260B	**4.1**	**14**	**1.6**	**10**	<0.05
	3/31/2009	8260B	**2.6**	**7.4**	**0.54**	**3.5**	<0.05
	12/2/2008	8260B	**1.4**	**3.3**	**0.36**	**1.9**	<0.05
	9/9/2008	8260B	**0.36**	0.39	**0.028**	**0.2**	<0.05
	6/17/2008	8260B	**0.84**	**1.5**	**0.14**	**0.89**	<0.1
	3/10/2008	8260B	**0.47**	0.73	**0.15**	**0.97**	<0.05

8.1 Effluents (AL-2 TO EP-1, Pilot Effluent, NAPIS Effluent
BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (June 8, 2012)			0.005	1	0.7	10	NE
EPA RSL for Tap Water (April 2012)			3.9E-04	0.86	1.3E-03	0.19	0.012
SAMPLE ID	DATE SAMPLED	METHOD					

NOTES
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

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

NOTES

8.1.1 Effluents (AL-2 TO EP-1, Pilot Effluent, NAPIS Effluent)
General Chemistry Analytical Result Summary

			Parameters									
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	DRO (mg/L)	GRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6.6 to 8.6[1]**	**NE**	**0.2[2]**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**4.0**	**NE**	**NE**	**1**	**10**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.62**	**NE**	**NE**	**1.6**	**25**	**3.1E-04**	**NE**	**NE**	**NE**	**NE**	**NE**
SAMPLE ID	**DATE SAMPLED**	**METHOD**											
AL-2 to EP-1	11/3/2010	300.0/8015B	**77**	230	NL	<2.0	4	<10	**880**	NA	NA	**98**	0.36
	9/13/2010	300.0/8015B	**60**	240	NL	**1.2**	<1.0	<10	**1300**	NA	NA	**9.1**	0.51
	6/8/2010	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**66**	0.56
	3/9/2010	300.0/8015B	**130**	**280**	1.6	**7.4**	7.4	<5.0	**870**	NA	NA	**190**	<1.0
	11/10/2009	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**49**	0.48
	8/19/2009	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**41**	<5.0
	5/26/2009	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**12**	0.15
	3/31/2009	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**76**	0.63
	12/2/2008	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**160**	<5.0
	9/9/2008	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**44**	<5.0
	6/17/2008	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**140**	1.4
	3/10/2008	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**24**	1.7
Pilot Effluent	11/3/2010	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**15**	0.065
	9/16/2010	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**5.3**	<0.05
	6/28/2010	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**19**	<0.25
	3/10/2010	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**28**	<0.25
	11/10/2009	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**8.3**	<0.25
	8/19/2009	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**10**	<0.5
	5/27/2009	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**6.8**	<0.05
	3/31/2009	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**9.0**	<0.25
	12/2/2008	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**10**	<0.5
	9/9/2008	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**6.3**	<1.0
	6/17/2008	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**5.4**	0.078
	3/10/2008	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**12**	<0.05
NAPIS Effluent	11/3/2010	300.0/8015B	**410**	240	NL	<2.0	**11**	<10	**820**	NA	NA	**68**	62
	9/13/2010	300.0/8015B	**20**	**260**	NL	<2.0	6.3	<10	**1300**	NA	3600	**39**	150
	6/8/2010	300.0/8015B	**37**	230	1.6	**4.2**	4.2	<5.0	**880**	**9.04**	3600	**150**	58
	3/9/2010	300.0/8015B	**43**	**290**	1.1	**5.5**	5.5	<2.5	**610**	NR	NA	**99**	120
	11/10/2009	300.0/8015B	**86**	**460**	5.4		<	**36**	450	**8.9**	3600	**130**	84
	8/19/2009	300.0/8015B	**31**	170	NL	**13**	**13**	<2.5	**1100**	**9.21**	4000	**31**	37
	5/26/2009	300.0/8015B	**73**	120	NL	**3.1**	3.1	**2.5**	**620**	8.29	2600	**110**	61
	3/31/2009	300.0/8015B	**20**	140	NL	**3.1**	3.1	<2.5	350	**9.12**	2300	**880**	48
	12/2/2008	300.0/8015B	**12**	160	NL	<1.0	1.2	<5.0	510	**8.63**	2200	**68**	20
	9/9/2008	300.0/8015B	**11**	78	NL	0.8	1.8	**14**	440	**9.44**	3300	**35**	<10
	6/17/2008	300.0/8015B	**19**	93	NL	<1.0	3.4	**37**	**630**	**9.07**	4600	**44**	11
	3/10/2008	300.0/8015B	**69**	**480**	NL	<5.0	<5.0	<25	**570**	**9.14**	2800	**290**	11

8.1.1 Effluents (AL-2 TO EP-1, Pilot Effluent, NAPIS Effluent)
General Chemistry Analytical Result Summary

			Parameters									
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	DRO (mg/L)	GRO (mg/L)
WQCC 20NMAC 6.2.3103			1.6	250.0	NE	NE	10	NE	600.0	6.6 to 8.6[1]	NE	0.2[2]	NE
40 CFR 141.62 MCL (June 8, 2012)			4.0	NE	NE	1	10	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (April 2012)			0.62	NE	NE	1.6	25	3.1E-04	NE	NE	NE	NE	NE
SAMPLE ID	DATE SAMPLED	METHOD											

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
1) 20NMAC 6.2.2101 General Requirements
2) NMED Table 2a. TH Screening Guidelines for Potable Ground Water (GW-1). (Oct 2006)
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES

8.1.2 Effluents (Pilot Effluent)
BOD/COD Analytical Result Summary

			Parameters	
			BOD (mg/L)	COD (mg/L)
WQCC 20NMAC 6.2.3103			<30[1]	<125[1]
SAMPLE ID	DATE SAMPLED	METHOD		
Pilot Effluent	11/3/2010	SM5210B/410.4	**270**	**900**
	9/20/2010	SM5210B/410.4	**420**	**1500**
	6/28/2010	SM5210B/410.4	**400**	**462**
	3/10/2010	SM5210B/410.4	**196**	**455**
	11/10/2009	SM5210B/410.4	NA	**410**
	8/19/2009	SM5210B/410.4	**905**	**712**
	5/27/2009	SM5210B/410.4	**442**	**431**
	3/31/2009	SM5210B/410.4	**1519**	**422**
	12/2/2008	SM5210B/410.4	**642**	**336**
	9/9/2008	SM5210B/410.4	**375**	**795**
	6/17/2008	SM5210B/410.4	**399**	**699**
	3/11/2008	SM5210B/410.4	**618**	**824**

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
1) 20 NMAC 6.2.2101 General Requirements

NOTES:

8.1.3 Effluents (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent)
Total Metals Analytical Result Summary

			Parameters											
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**0.05**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**6.9E-03**	**NE**	**0.62**	**11**	**NE**	**0.32**	**0.078**	**0.071**	**6.3E-04**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**													
AL-2 to EP-1	11/3/2010	6010B	<0.02	0.077	<0.002	0.02	8.6E-03	**11**	<0.005	0.14	<0.05	<0.005	4.6E-04	NL	0.55
	9/13/2010	6010B	<0.02	0.18	<0.002	**0.84**	0.023	**11**	<0.005	**0.247**	<0.05	<0.005	**1.1E-03**	0.001	0.63
	6/8/2010	6010B	**0.023**	0.17	<0.002	0.014	0.025	**1.6**	6.3E-03	0.15	<0.05	<0.005	**8.2E-04**	NL	0.33
	3/9/2010	6020A	**9.6E-03**	9.68E-02	<0.001	3.92E-02	3.74E-02	**19.6**	9.7E-03	**0.476**	1.54E-02	<0.001	4.8E-04	1.67E-03	0.584
	11/10/2009	6010B	<0.1	0.056	<0.01	<0.03	<0.03	**1.9**	<0.025	0.12	<0.25	<0.025	2.9E-04	NL	0.11
	8/21/2009	6010B	<0.1	0.055	<0.01	<0.03	<0.03	**1.0**	<0.025	0.093	<0.25	<0.025	4.9E-04	0.002	0.3
	5/26/2009	6010B	<0.02	0.08	<0.002	<0.006	<0.006	**5.7**	7.3E-03	0.019	<0.05	<0.025	<0.0002	<0.001	0.59
	3/31/2009	6010B	**0.024**	0.099	<0.002	0.016	NL	NL	6.4E-03	NL	<0.05	<0.005	<0.0002	NL	NL
	12/2/2008	6010B	<0.02	0.2	<0.005	<0.01	<0.02	**6.8**	<0.005	**0.4**	0.034	<0.01	4.8E-04	NL	0.59
	9/9/2008	6010B	<0.02	0.069	<0.002	7.2E-03	<0.006	**2.5**	<0.005	0.13	<0.05	<0.005	<0.0002	<0.001	0.19
	6/17/2008	6010B	<0.02	0.14	<0.002	0.013	0.015	**9.0**	<0.005	0.13	<0.05	<0.005	**7.6E-04**	NL	1.6
	3/10/2008	6010B	<0.02	0.017	<0.002	**0.1**	<0.006	**11**	<0.005	**1.4**	<0.05	<0.005	<0.0002	**1.9**	1.9
Pilot Effluent	11/3/2010	6010B	<0.02	<0.02	<0.002	<0.006	0.091	0.64	<0.005	0.055	<0.05	<0.005	<0.0002	NL	0.18
	6/16/2010	6010B	<0.02	<0.1	<0.01	<0.03	<0.03	**3.2**	<0.025	0.14	<0.25	<0.025	<0.0002	0.005	0.69
	6/28/2010	6010B	<0.02	<0.02	<0.002	<0.006	0.055	0.49	<0.005	0.058	<0.05	<0.005	<0.0002	0.001	0.12
	3/10/2010	6010B	<0.02	<0.02	<0.002	<0.006	0.061	0.56	<0.005	0.049	<0.05	<0.005	<0.0002	1.3E-03	0.14
	11/10/2009	6010B	<0.04	0.023	<0.004	<0.012	0.047	0.28	<0.01	0.041	<0.1	<0.01	<0.0002	NL	0.058
	8/19/2009	6010B	<0.02	<0.05	<0.01	<0.03	0.063	0.44	<0.025	0.079	<0.25	<0.025	<0.0002	0.001	0.15
	5/27/2009	6010B	<0.02	<0.01	<0.002	<0.006	0.034	0.33	<0.005	0.048	<0.05	<0.005	<0.0002	<0.001	0.046
	3/31/2009	6010B	<0.02	0.033	<0.002	<0.006	0.031	0.72	<0.005	0.12	<0.05	<0.005	<0.0002	0.001	0.098
	12/2/2008	6010B	<0.02	0.021	<0.005	0.01	0.4	0.36	<0.005	0.086	<0.02	<0.01	<0.0002	NL	0.068
	9/9/2008	6010B	<0.02	0.017	<0.002	<0.006	0.21	0.49	<0.005	0.085	<0.05	<0.005	<0.0002	<0.001	0.057
	3/10/2008	6010B	<0.02	0.022	<0.002	<0.006	0.018	0.35	<0.005	0.092	<0.5	<0.005	<0.0002	<0.1	0.055
NAPIS Effluent	11/3/2010	6010B	<0.1	<0.1	<0.01	<0.03	<0.03	**13**	<0.025	0.16	<0.25	<0.025	6.0E-04	NL	0.32
	9/13/2010	6010B	<0.02	0.12	<0.002	**0.16**	0.014	**9.8**	<0.005	0.15	<0.05	<0.005	4.1E-04	0.002	1.2
	6/8/2010	6010B	<0.02	0.072	<0.002	6.7E-03	0.012	**7.8**	<0.005	0.1	<0.05	<0.005	**1.4E-03**	NL	0.11
	3/10/2010	6020A	**6.22E-03**	9.26E-02	<0.001	3.72E-02	2.23E-02	**11.1**	4.1E-03	**1.67**	1.55E-02	<0.001	**8.6E-04**	1.1E-03	0.206
	11/10/2009	6010B	<0.1	0.77	<0.01	0.035	0.053	**19**	**0.029**	0.15	<0.25	<0.025	5.5E-04	NL	0.47
	8/19/2009	6010B	<0.01	<0.05	<0.01	<0.03	<0.03	**13**	<0.025	0.06	<0.25	<0.025	<0.0002	0.002	0.16
	5/26/2009	6010B	<0.02	0.09	<0.002	0.011	0.023	**4.1**	6.3E-03	0.17	<0.05	<0.005	**0.009**	<0.001	0.34
	3/31/2009	6010B	<0.02	0.069	<0.002	<0.006	0.054	**1.7**	<0.005	0.056	<0.05	<0.005	3.0E-04	<0.001	0.26
	12/2/2008	6010B	<0.02	0.11	<0.005	<0.01	<0.02	**1.8**	<0.005	0.17	<0.02	<0.01	2.6E-04	<0.001	0.23
	9/19/2008	6010B	<0.02	0.062	<0.002	<0.006	<0006	0.076	<0.005	0.057	**0.052**	<0.005	<0.0002	<0.001	<0.02

8.1.3 Effluents (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent)
Total Metals Analytical Result Summary

			Parameters											
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**0.05**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**6.9E-03**	**NE**	**0.62**	**11**	**NE**	**0.32**	**0.078**	**0.071**	**6.3E-04**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**													
NAPIS Effluent	6/17/2008	6010B	<0.02	0.081	<0.002	<0.006	<0.006	**1.1**	<0.005	0.057	<0.05	<0.005	<0.0002	<0.1	0.19
	3/10/2008	6010B	<0.02	0.32	<0.002	0.019	0.053	**10**	0.013	**0.2**	<0.5	<0.005	<0.0002	<0.1	1.3

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Primary Drinking Water Regulation (May 2009); Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES

8.1.4 Effluents (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent)
Dissolved Metals Analytical Result Summary

			Parameters													
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**6.9E-03**	**NE**	**NE**	**0.62**	**11**	**NE**	**NE**	**0.32**	**NE**	**0.078**	**NE**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**															
AL-2 to EP-1	11/3/2010	6010B	<0.02	0.035	<0.002	31	6.6E-03	<0.006	**2.6**	<0.005	11	0.13	36	<0.05	630	NL	NL
	9/13/2010	6010B	<0.02	0.042	<0.002	37	**0.08**	<0.006	**1.6**	<0.005	14	**0.2**	25	<0.05	730	<0.001	NL
	6/8/2010	6010B	<0.02	0.037	<0.002	40	8.9E-03	6.8E-03	**6.5**	<0.005	13	0.13	13	<0.05	850	<0.001	0.064
	3/9/2010	6010B	**6.7E-03**	3.05E-02	<0.001	35.3	1.88E-02	7.28E-03	**12.1**	3.77E-03	10.7	**0.456**	58.2	9.77E-03	678	<0.001	0.34
Pilot Effluent	11/3/2010	6010B	<0.1	<0.1	<0.01	130	<0.03	<0.03	<0.1	<0.025	31	0.052	21	<0.25	250	NL	NL
	9/16/2010	6010B	<0.02	0.022	<0.002	140	<0.006	<0.006	0.3	<0.005	30	0.057	18	<0.05	240	0.001	NL
	6/28/2010	6010B	<0.02	<0.02	<0.002	NL	<0.006	<0.006	0.097	<0.005	NL	0.068	NL	<0.05	NL	NL	NL
	3/10/2010	6020A	<0.02	<0.02	<0.002	NL	<0.006	9.5E-03	0.13	<0.005	NL	0.039	NL	<0.05	NL	<0.001	<0.05
NAPIS Effluent	11/3/2010	6010B	<0.02	0.028	<0.002	6.7	0.024	<0.006	**6.0**	<0.005	7.7	0.17	76	<0.05	570	NL	NL
	9/13/2010	6010B	<0.02	0.085	<0.002	60	**0.08**	<0.006	**3.7**	<0.005	14	0.14	13	<0.05	790	0.002	NL
	6/8/2010	6010B	<0.02	0.035	<0.002	35	<0.006	<0.006	**4.6**	<0.005	10	0.094	10	<0.05	730	NL	0.051
	3/10/2010	6020A	**2.3E-03**	5.66E-03	<0.001	136	9.56E-03	<0.001	0.693	<0.001	0.56	0.124	30.9	9.44E-03	1910	1.04E-03	1.57E-02

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Primary Drinking Water Regulation (May 2009); Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES

8.1.5 Effluents (Pilot Effluent, NAPIS Effluent)
Volatile Organic Analytical Result Summary

			Parameters													
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	2-Butanone (mg/L)	Carbon Disulfide (mg/L)	Chloroethane (mg/L)	Chloroform (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	Sec-Butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	0.03	NE	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE
40 CFR 141.62 MCL (June 8, 2012)			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (April 2012)			0.015	0.087	1.4E-04	9.7E-04	0.027	12	NE	0.72	NE	1.9E-04	NE	NE	0.78	NE	NE
SAMPLE ID	**DATE SAMPLED**	**METHOD**															
AL-2 to EP-1	11/3/2010	8260B	<0.005	<0.005	<0.01	**0.024**	**0.041**	1.8	0.14	<0.05	<0.01	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	9/13/2010	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.91	0.21	<0.05	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	6/8/2010	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.29	<0.1	<0.1	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	3/9/2010	8260B	**0.019**	<0.005	**0.045**	**0.21**	**0.34**	1.7	<0.05	<0.05	<0.01	<0.005	<0.005	<0.005	0.005	<0.005	<0.005
	11/10/2009	8260B	5.2E-03	<0.01	**0.012**	**0.04**	**0.047**	0.75	0.089	0.24	0.26	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	8/19/2009	8260B	0.012	0.004	**0.023**	**0.052**	**0.084**	1.2	<0.01	<0.01	<0.002	<0.001	<0.001	<0.001	4.4E-03	1.5E-03	NL
	5/26/2009	8260B	6.3E-03	2.5E-03	**2.3E-03**	**0.047**	**0.041**	1.5	0.081	<0.01	<0.002	<0.001	<0.001	<0.001	1.2E-03	NL	NL
	3/31/2009	8260B	**0.022**	5.8E-03	**0.05**	**0.17**	**0.24**	0.93	<0.01	<0.01	<0.02	<0.001	<0.001	<0.001	7.9E-03	NL	NL
	12/2/2008	8260B	**0.12**	0.041	**0.078**	**0.19**	**0.28**	1.9	0.095	<0.5	<0.01	<0.05	6.6E-03	6.7E-03	<0.05	0.013	NL
	9/9/2008	8260B	<0.02	<0.02	<0.04	<0.08	<0.08	2.2	<0.20	<0.2	<0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	6/17/2008	8260B	**0.039**	ND	**0.051**	**0.18**	**0.26**	3.8	0.35	<0.2	<0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	3/1008	8260B	**0.6**	**0.17**	**0.33**	**0.34**	**0.52**	2.2	0.48	<0.1	<0.02	<0.01	0.012	0.015	0.055	0.045	<0.01
Pilot Effluent	11/3/2010	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.098	<0.05	<0.5	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	9/16/2010	8260B[1]	<0.001	<0.001	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	6/28/2010	8260B	<0.005	<0.005	<0.005	<0.02	<0.02	<0.05	<0.05	0.19	<0.01	<0.005	<0.006	<0.007	<0.009	<0.010	<0.011
	3/10/2010	8260B	<0.005	<0.005	<0.005	<0.02	<0.02	<0.05	<0.05	0.19	<0.01	<0.005	<0.006	<0.007	<0.009	<0.010	<0.011
	11/10/2009	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	<0.05	<0.05	0.15	<0.01	**6.2E-03**	<0.005	<0.005	<0.005	<0.005	<0.005
	8/19/2009	8260B	<0.001	<0.001	<0.02	<0.004	<0.004	0.29	0.014	<0.01	<0.002	**6.5E-03**	<0.001	1.9E-03	<0.001	<0.001	<0.001
	5/27/2009	8260B	<0.001	<0.001	<0.002	<0.004	NL	0.17	<0.01	<0.01	<0.002	**3.5E-03**	<0.001	2.4E-03	<0.001	<0.001	<0.001
	3/31/2009	8260B	**0.66**	**0.17**	**0.5**	**0.29**	NL	0.36	0.012	<0.01	<0.002	**0.003**	<0.001	7.9E-03	<0.001	<0.001	<0.001
	12/2/2008	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.058	<0.01	<0.01	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	9/9/2008	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.3	<0.05	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	6/17/2008	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.078	0.01	<0.01	<0.002	**4.4E-03**	<0.001	<0.001	<0.001	<0.001	<0.001
	3/10/2008	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.49	<0.01	<0.01	<0.002	**6.9E-03**	<0.001	<0.001	<0.001	<0.001	<0.001

8.1.5 Effluents (Pilot Effluent, NAPIS Effluent)
Volatile Organic Analytical Result Summary

			Parameters													
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	2-Butanone (mg/L)	Carbon Disulfide (mg/L)	Chloroethane (mg/L)	Chloroform (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	Sec-Butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	0.03	NE	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE
40 CFR 141.62 MCL (June 8, 2012)			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (April 2012)			0.015	0.087	1.4E-04	9.7E-04	0.027	12	NE	0.72	NE	1.9E-04	NE	NE	0.78	NE	NE
SAMPLE ID	**DATE SAMPLED**	**METHOD**															
NAPIS Effluent	11/3/2010	8260B	**1.4**	**0.44**	**0.49**	<0.4	**0.47**	<1.0	<1.0	<1.0	<0.2	<0.1	<0.1	<0.1	<0.1	0.21	<0.1
	9/13/2010	8260B	**3.0**	**0.09**	**0.56**	<0.4	<0.4	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	0.17	0.37	<0.1
	6/8/2010	8260B	**0.67**	**0.22**	**0.25**	**0.24**	**0.45**	<0.05	<0.5	<0.5	<0.1	<0.05	<0.05	<0.05	0.062	0.094	<0.1
	3/9/2010	8260B	**3.0**	**0.91**	**0.56**	**0.27**	**0.52**	<0.05	<0.5	<0.5	<0.1	<0.05	0.17	<0.05	0.32	0.54	0.07
	11/10/2009	8260B	**1.2**	**0.44**	**0.83**	**0.41**	**0.68**	11	<0.5	<0.5	<0.1	<0.05	<0.05	<0.05	<0.05	0.21	<0.05
	8/19/2009	8260B	**0.69**	**0.2**	**0.59**	**0.24**	**0.42**	7.2	<0.5	<0.5	<0.1	<0.05	<0.05	<0.05	<0.05	0.082	<0.05
	5/26/2009	8260B	**3.0**	**0.37**	**0.49**	**0.3**	**0.5**	8.9	0.8	<0.1	<0.2	<0.1	0.087	0.03	0.11	0.16	<0.05
	3/31/2009	8260B	**0.66**	**0.17**	**0.5**	**0.29**	**0.51**	**20**	2.2	<0.5	<0.1	<0.05	0.057	<0.05	0.1	0.085	<0.01
	12/2/2008	8260B	**0.4**	**0.1**	**0.43**	**0.29**	**0.46**	4.7	<0.5	<0.5	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	9/9/2008	8260B	**0.053**	<0.02	**0.087**	<0.05	<0.08	**17**	1.9	<0.2	<0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	6/17/2008	8260B	**0.26**	<0.1	**0.29**	**0.4**	<0.4	**17**	2.5	<1.0	<0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	3/10/2008	8260B	**0.59**	**0.17**	**0.2**	**0.25**	**0.38**	0.5	<0.5	<0.5	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DEFINITIONS:
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

NOTES

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limts for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

8.1.6 Effluents (AL-2 to EP-1, Napis Effluent)
Semi-Volatile Organic Analytical Result Summary

			Parameters															
			Aniline (mg/L)	Benzoic Acid (mg/L)	Benzyl Alcohol (mg/L)	Bis(2-ethylhexyl)phthalate (mg/L)	Carbazole (mg/L)	Chrysene (mg/L)	Dibenzofuran (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluorene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.03	NE	0.005	NE	NE
40 CFR 141.62 MCL (June 8, 2012)			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (April 2012)			0.012	58	1.5	7.2E-05	NE	3.E-03	6.E-03	0.27	0.22	0.027	NE	NE	1.4E-04	NE	4.5	0.087	0.015
SAMPLE ID	**DATE SAMPLED**	**METHOD**																	
AL-2 to EP-1	11/3/2010	8270C	**0.16**	0.13	<0.05	<0.05	<0.05	<0.05	<0.05	**0.31**	<0.05	<0.05	1.7	4.3	<0.05	0.068	**6.3**	<0.05	<0.05
	9/13/2010	8270C	**0.23**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	0.16	<0.05	<0.05	0.4	0.064	<0.05	<0.05	**0.1**	<0.05	<0.05
	6/8/2010	8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/9/2010	8270C	**0.15**	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	**24**	0.055	**0.18**	1.2	2.7	<0.05	0.15	**4.8**	<0.05	NL
	11/10/2009	8270C	**0.15**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	0.16	<0.05	**0.067**	1.2	2.2	<0.05	0.12	**1.2**	<0.05	<0.05
	8/19/2009	8270C	**0.1**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	0.18	0.052	**0.18**	0.84	0.95	<0.05	0.26	**2.6**	0.063	<0.05
NAPIS Effluent	11/3/2010	8270C	**0.35**	0.37	<0.05	<0.05	<0.05	<0.05	<0.05	**0.41**	<0.05	**0.41**	1.5	3.6	**0.32**	<0.05	**5.7**	<0.05	<0.05
	9/13/2010	8270C	**0.87**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	**0.36**	0.076	**2.3**	1.8	3.7	**2.2**	0.23	**4.5**	<0.05	<0.05
	6/8/2010	8270C	**0.6**	<0.1	<0.05	<0.05	<0.05	<0.05	**0.085**	**0.71**	0.21	**4.4**	3.1	5.6	**0.89**	0.99	**12**	**0.1**	<0.05
	3/9/2010	8270C	**1.1**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	**0.92**	0.11	**2.1**	3.1	8.1	**1.4**	0.35	**13**	0.059	**0.076**
	11/10/2009	8270C	**1.4**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	**0.3**	0.11	**1.7**	4.4	7.4	**1.3**	0.33	**14**	ND	**0.08**
	8/19/2009	8270C	**0.32**	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	**0.34**	0.21	**5.6**	1.3	2.2	**3.2**	1	**4.4**	**0.16**	<0.1
	5/26/2009	8270C	NL	NL	NL	NL	NL	NL	NL	0.2	NL	NL	1.6	3.9	NL	NL	**7.2**	NL	NL
	3/31/2009	8270C	<0.1	1.0	<0.1	<0.075	<0.05	<0.075	<0.05	<0.05	<0.05	<0.05	<0.075	0.57	<0.05	<0.05	**0.056**	<0.075	<0.15
	12/2/2008	8270C	NL	NL	NL	NL	NL	NL	NL	0.12	NL	NL	0.62	3.2	NL	NL	**6.8**	<0.05	<0.05
	9/9/2008	8270C	**2.1**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	**0.49**	<0.05	**0.063**	7.4	13	**0.076**	<0.05	**25**	<0.05	<0.05
	6/17/2008	8270C	**0.4**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	0.15	<0.05	**0.5**	4.9	8.5	**0.24**	0.16	**17**	<0.05	<0.05
	3/10/2008	8270C	<0.05	<0.1	<0.05	<0.05	0.071	**0.12**	<0.05	<0.05	0.093	**0.59**	0.15	0.17	**0.22**	0.44	**0.19**	**0.15**	<0.05

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

NOTES

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

8.2 Influents (Infl to AL-1, Infl to AL-2, Infl to EP-1)
BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			**0.01**	**0.75**	**0.75**	**0.62**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**0.005**	**1**	**0.7**	**10**	**NE**
EPA RSL for Tap Water (April 2012)			**3.9E-04**	**0.86**	**1.3E-03**	**0.19**	**0.012**
SAMPLE ID	**DATE SAMPLED**	**METHOD**					
Infl to AL-1	11/3/2010	8260B	**0.011**	0.056	**0.019**	0.13	<0.005
	9/13/2010[3]	8260B	**0.012**	0.031	<0.005	0.038	<0.005
	6/7/2010[2]	8260B	NA	NA	NA	NA	NA
	3/9/2010[1]	8260B	**0.19**	0.6	**0.13**	**0.8**	<0.010
Infl to AL-2	11/3/2010	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	9/13/2010[3]	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	6/7/2010[2]	8260B	NA	NA	NA	NA	NA
	3/9/2010[1]	8260B	**0.017**	0.061	**0.017**	0.1	<0.1
Infl to EP-1	11/3/2010	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	9/13/2010[3]	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	6/28/2010	8260B	<0.02	<0.02	<0.02	<0.03	<0.02
	3/10/2010	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	10/27/2009	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	5/6/2009	8260B	<0.005	<0.005	<0.005	0.012	<0.005
	12/2/2008	8260B	**0.007**	0.081	**0.03**	**0.23**	<0.005
	9/9/2008	8260B	<0.01	<0.01	<0.01	<0.0015	<0.01
	8/21/2008	8260B	**0.023**	0.028	<0.005	0.029	<0.005
	6/17/2008	8260B	<0.01	0.012	<0.01	0.024	<0.01
	1/1/2008	8260B	**0.13**	0.22	**0.39**	**0.22**	5.2E-03
	10/30/2006	8260B	<0.01	<0.01	<0.01	0.062	<0.015
	3/30/2006	8260B	**0.21**	0.44	**0.06**	**0.43**	<0.075

NOTES
NE = Not established
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NL = Not listed on laboratory analysis
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STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

1) 3/9/2010 samples, used unapproved 2010 Facility Wide Ground Water Monitoring Work Plan for analysis.
2) 6/7/2010 , Method 8260B analysis not requested to be analyzed.
3) 9/13/2010 used approved Facility Wide Ground Water Monitoring Work Plan sample schedule for analysis (approved August 25, 2010).

8.2.1 Influents (Infl to AL-1, Influ to AL-2, Infl to EP-1)
General Chemistry, BOD/COD, Analytical Result Summary

			Parameters											
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	DRO (mg/L)	GRO (mg/L)	BOD (mg/L)	COD (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6.6 to 8.6[1]**	**NE**	**0.2[2]**	**NE**	**<30[1]**	**<125[1]**
40 CFR 141.62 MCL (June 8, 2012)			**4.0**	**NE**	**NE**	**1**	**10**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.62**	**NE**	**NE**	**1.6**	**25**	**3.1E-04**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
SAMPLE ID	**DATE SAMPLED**	**METHOD**													
Infl to AL-1	11/3/2010	300.0/8015B	**95**	**250**	NL	<1.0	**14**	<0.1	**950**	NA	NA	**8.1**	8	**530**	**1100**
	9/13/2010[5]	300.0/8015B	NA	**260**	NA	NA	NA	NA	NA	**10.24**	NA	**7.9**	0.57	**780**	**774**
	6/7/2010[4]	300.0/8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**400**	**200**
	3/9/2010[3]	300.0/8015B	NA	**280**	NA	NA	NA	NA	NA	**10.44**	NA	**60**	6	**1150**	**1760**
Infl to AL-2	11/3/2010	300.0/8015B	**160**	210	NL	<2.0	5.7	<0.1	**990**	NA	NA	**7.0**	0.69	**920**	**1700**
	9/13/2010[5]	300.0/8015B	NA	240	NA	NA	NA	NA	NA	7.75	NA	**7.3**	0.47	**280**	**378**
	6/7/2010[4]	300.0/8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**310**	**1200**
	3/9/2010[3]	300.0/8015B	NA	**260**	NA	NA	NA	NA	NA	**8.99**	NA	**1.3**	1.3	**650**	**1890**
Infl to EP-1	11/3/2010	300.0/8015B	**100**	220	NL	<0.002	<0.002	<1.0	**940**	7.54	4000	**45**	0.34	**840**	**1700**
	9/13/2010[5]	300.0/8015B	**59**	230	NL	**1.5**	1.5	<5.0	**1300**	NA	NA	**9.4**	0.38	**200**	**375**
	6/28/2010	300.0/8015B	**140**	220	1.9	<1.0	<1.0	<5.0	**2000**	7.42	5200	**140**	2.8	NA	NA
	3/10/2010	300.0/8015B	**66**	**440**	1.1	**1.6**	1.6	**2.5**	**920**	7.94	20000	**150**	0.34	**159**	**795**
	10/27/2009	300.0/8015B	**120**	**250**	1.3	0.8	0.68	<5.0	**310**	7.76	2600	**29**	0.83	**265**	**1660**
	5/6/2009	300.0/8015B	**66**	120	NA	NA	NA	NA	**710**	7.36	2600	**100**	2.1	**556**	**545**
	12/2/2008	300.0/8015B	NA	**350**	NA	NA	NA	NA	NA	7.62	NA	**120**	<0.005	**231**	**840**
	9/9/2008	300.0/8015B	NA	170	NA	NA	NA	NA	NA	7.93	NA	**140**	<.2	**260**	**1360**
	6/17/2008	300.0/8015B	NA	NA	NA	NA	NA	NA	NA	7.43	NA	**140**	2.7	NL	NL

NOTES
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
1) 20 NMAC 20.6.2.2101 General Requirements
2) NMED Table 2a. TPH Screening Guidelines for Potable Ground Water (GW-1). (Oct 2006)
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES
3) 3/9/2010 samples, used unapproved 2010 Facility Wide Ground Water Monitoring Work Plan for analysis.
4) 6/7/2010 , Method 8260B analysis not requested to be analyzed.
5) 9/13/2010 used approved 2010 Facility Wide Ground Water Monitoring Work Plan sample schedule for analysis (approved August 25, 2010).

8.2.2 Influents (Infl to AL-1, Infl to AL-2, Infl to EP-1)
Volatile Organic Analytical Result Summary

			Parameters										
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	2-Butanone (mg/L)	Carbon Disulfide (mg/L)	Isopropyl benzene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			**NE**	**NE**	**0.03**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.015**	**0.087**	**1.4E-04**	**9.7E-04**	**0.027**	**12**	**NE**	**0.72**	**NE**	**0.78**	**NE**	**NE**
SAMPLE ID	**DATE SAMPLED**	**METHOD**												
Infl to AL-1	11/3/2010	8260B	**0.14**	0.047	**0.078**	**0.15**	**0.25**	0.83	<0.05	<0.05	<0.05	0.029	0.019	6.2E-03
	9/13/2010[2]	8260B	**0.026**	0.007	**0.03**	<0.02	0.021	1.5	0.28	<0.05	<0.005	<0.005	<0.005	<0.005
	3/9/2010[1]	8260B	**0.41**	**0.12**	**0.27**	**0.091**	**0.16**	6.1	<0.1	<0.1	0.016	0.024	0.063	<0.01
Infl to AL-2	11/3/2010	8260B	0.006	<0.005	<0.01	**0.026**	**0.041**	1.7	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005
	9/13/2010[2]	8260B	0.0068	<0.005	<0.01	<0.02	<0.02	2.2	0.3	<0.05	<0.005	<0.005	<0.005	<0.005
	3/9/2010[1]	8260B	**0.071**	0.021	**0.088**	**0.068**	**0.11**	6.9	<0.1	<0.1	<0.01	<0.01	0.01	<0.01
Infl to EP-1	11/3/2010	8260B	<0.005	<0.005	<0.01	<0.02	0.021	1.5	0.13	<0.05	<0.005	<0.005	<0.005	<0.005
	9/13/2010[2]	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.93	0.2	<0.05	<0.005	<0.005	<0.005	<0.005
	6/28/2010	8260B	<0.02	<0.02	<0.04	<0.08	<0.08	0.055	<0.2	<0.2	<0.02	<0.02	<0.02	<0.02
	3/10/2010	8260B	**6.1**	<0.005	**0.033**	**0.065**	**0.1**	1.9	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005
	5/6/2009	8260B	0.014	6.1E-03	<0.004	**0.095**	**0.096**	1.4	0.12	<0.02	<0.002	6.4E-03	<0.002	<0.002
	12/2/2008	8260B	**0.11**	0.037	**0.072**	**0.14**	**0.22**	1.7	0.1	<0.05	7.3E-03	0.019	0.013	<0.005
	9/9/2008	8260B	**0.04**	<0.01	**0.067**	**0.24**	**0.35**	1.7	0.21	<0.1	<0.1	0.011	<0.01	<0.01
	6/17/2008	8260B	**0.033**	<0.01	**0.053**	**0.087**	**0.13**	1.6	0.32	<0.1	<0.01	<0.01	<0.01	<0.01

DEFINITIONS	**STANDARDS**
NE = Not establishes	WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less
NA = Not analyzed	a) Human Health Standards; b) Other Standards for Domestic Water
NL = Not listed on laboratory analysis	40 CFR 141.62 Detection Limits for Inorganic Contaminants
Bold and highlighted values represent values above the applicable standards	EPA Regional Screening Level (RSL) Summary Table

NOTES:

1) 3/9/2010 samples, used unapproved 2010 Facility Wide Ground Water Monitoring Work Plan for analysis.

2) 9/13/2010 used approved Facility Wide Ground Water Monitoring Work Plan sample schedule for analysis (approved August 25, 2010).

8.2.3 Influents (Infl to AL-1, Infl to AL-2, Infl to EP-1)
Semi-Volatile Organic Analytical Result Summary

			Parameters									
			Aniline (mg/L)	Benzoic Acid (mg/L)	Benzyl Alcohol (mg/L)	2,4-Dimethylphenol (mg/L)	2-Methylnaphthalene (mg/L)	2-Methylphenol (mg/L)	3+4-Methylphenol (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)
WQCC 20NMAC 6.2.3103			**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**0.03**	**NE**	**0.005**
40 CFR 141.62 MCL (June 8, 2012)			**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.012**	**58**	**1.5**	**0.27**	**0.027**	**NE**	**NE**	**1.4E-04**	**NE**	**4.5**
SAMPLE ID	**DATE SAMPLED**	**METHOD**										
Infl to AL-1	11/3/2010	8270C	**0.58**	0.32	<0.05	**0.42**	**0.3**	1.5	3.1	**0.08**	0.17	**5.5**
	9/13/2010[3]	8270C	**0.26**	0.13	<0.05	**0.36**	<0.05	0.93	1.8	<0.05	<0.05	**25**
	6/7/2010	8270C	NL	NL	NL	0.2	NL	1.0	1.6	NL	NL	**2.6**
	9/8/2009	8270C	NL	NL	NL	<0.05	NL	0.15	1.1	NL	NL	**2.4**
	6/25/2009	8270C	NL	NL	NL	**0.27**	NL	1.6	3.4	NL	NL	**6.8**
	2/26/2009	8270C	NL	NL	NL	0.066	NL	0.75	1.9	NL	NL	**4.7**
	1/27/2009	8270C	NL	NL	NL	**0.84**	NL	1.1	4.2	NL	NL	**7.9**
Infl to AL-2	11/3/2010	8270C	**0.21**	0.14	<0.05	**0.3**	<0.05	1.7	3.8	<0.05	0.053	**6.1**
	9/13/2010[3]	8270C	**0.29**	<0.1	<0.05	0.21	<0.05	**0.81**	0.63	<0.05	<0.05	<0.05
	6/7/2010	8270C	NL	NL	NL	<0.05	NL	<0.05	<0.05	NL	NL	<0.05
	9/8/2009	8270C	NL	NL	NL	0.098	NL	0.57	1.2	NL	NL	**0.89**
	9/8/2009	8270C	NL	NL	NL	0.11	NL	1.3	2.5	NL	NL	**3.6**
	2/26/2009	8270C	NL	NL	NL	<0.05	NL	1.2	2.4	NL	NL	**5.6**
	1/27/2009	8270C	NL	NL	NL	**0.35**	NL	1.0	2.4	NL	NL	**2.5**
Infl to EP-1	11/3/2010	8270C	**0.25**	0.14	<0.05	**0.37**	<0.05	1.6	3.7	<0.05	0.06	**5.9**
	9/13/2010[3]	8270C	**0.24**	<0.1	<0.05	0.18	<0.05	0.48	<0.05	<0.05	<0.05	<0.05
	6/28/2010	8270C	**0.06**	<0.1	<0.05	<0.05	**0.097**	<0.05	<0.05	<0.05	0.1	<0.05
	6/7/2010	8270C	NL	NL	NL	NL	<0.05	NL	NL	NL	NL	NL
	3/10/2010[2]	8270C	**0.19**	<0.1	0.87	**0.37**	**0.16**	1.4	1.7	<0.05	0.12	**2.7**
	10/27/2009	8270C	**0.16**	NL	NL	0.065	NL	NL	1.1	**3.9**	0.078	**2.1**
	9/8/2009	8270C	NL	NL	NL	0.16	NL	1.2	2.4	NL	NL	**29**
	5/6/2009	8270C	**0.071**	NL	NL	0.078	NL	0.48	NL	NL	0.12	NL
	2/26/2009	8270C	NL	NL	NL	<0.05	NL	1.3	2.5	NL	NL	**4.8**
	12/2/2008	8270C	NL	NL	NL	0.087	NL	0.55	0.86	NL	NL	**1.5**
	9/9/2008	8270C	NL	NL	NL	0.2	NL	0.45	0.6	NL	NL	**1.3**

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

NOTES
1) Analyte detected for the first time during 4th quarter 2011 using 8270C analysis.
2) 3/10/2010 samples, used unapproved 2010 Facility Wide Ground Water Monitoring Work Plan for analysis.
3) 9/13/2010 used approved Facility Wide Ground Water Monitoring Work Plan sample schedule for analysis (approved August 25, 2010).

8.2.4 Influent (Infl to EP-1)

Total Metals Analytical Result Summary

			Parameters										
			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**0.05**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**NE**	**0.62**	**11**	**NE**	**0.32**	**0.078**	**6.3E-04**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**											
Infl to EP-1	9/13/2010[3]	6010B	<0.02	0.17	**0.76**	0.02	**10**	<0.005	**0.23**	<0.05	5.6E-04	0.001	0.59
	6/28/2010	200.8	**0.021**	0.34	0.026	0.058	**25**	0.01	**0.31**	0.039	<0.0008	5.3E-03	0.55
	3/10/2010[2]	6010B	<0.02	0.17	**0.067**	0.033	**18**	8.7E-03	**0.72**	<0.05	3.7E-04	1.69E-03	0.39

DEFINITIONS

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NL = Not listed on laboratory analysis

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STANDARDS

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

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

40 CFR 141.62 Detection Limits for Inorganic Contaminants

1. National Primary Drinking Water Regulation (May 2009); Action Level

EPA Regional Screening Level (RSL) Summary Table

NOTES

2) 3/10/2010 samples, used unapproved 2010 Facility Wide Ground Water Monitoring Work Plan for analysis.

3) 9/13/2010 used approved Facility Wide Ground Water Monitoring Work Plan sample schedule for analysis (approved August 25, 2010).

8.2.5 Influents (Infl to EP-1)
Dissolved Metals Analytical Result Summary

			Parameters												
			Arsenic (mg/L)	Barium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**0.62**	**11**	**NE**	**NE**	**0.32**	**NE**	**0.078**	**NE**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**														
Infl to EP-1	11/3/2010	6010B	NL	NL	40	NL	NL	NL	NL	12	NL	40	NL	660	NL	NL
	9/13/2010[3]	6010B	<0.02	0.044	38	**0.12**	<0.006	**2.2**	<0.005	14	**0.2**	0.26	<0.05	740	<0.001	<0.001
	6/28/2010	6010B	**0.012**	0.039	NL	0.015	<0.006	**12**	<0.005	NL	**0.27**	NL	0.029	NL	NL	0.071
	3/10/2010[2]	6010B	<0.02	0.029	45	0.023	0.011	**9.6**	7.2E-03	14	**0.58**	32	<0.05	990	1.1E-03	0.28

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STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Primary Drinking Water Regulation (May 2009), Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES
2) 3/10/2010 samples, used unapproved 2010 Facility Wide Ground Water Monitoring Work Plan for analysis.
3) 9/13/2010 used approved 2010 Facility Wide Ground Water Monitoring Work Plan sample schedule for analysis (approved August 25, 2010).

8.3 Leak Detection Units (East LDU, West LDU, Oil Sump LDU)
BTEX and DRO/GRO Analytical Result Summary

			Parameters						
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	DRO (mg/L)	GRO (mg/L)
WQCC 20NMAC 6.2.3103			**0.01**	**0.75**	**0.75**	**0.62**	**NE**	**0.2[1]**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**0.005**	**1.0**	**0.7**	**10**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**3.9E-04**	**0.86**	**1.3E-03**	**0.19**	**0.012**	**NE**	**NE**
SAMPLE ID	**DATE SAMPLED**	**METHOD**							
East LDU	11/11/2010	8260B	**10**	**28**	**1.3**	**9.0**	<0.05	**63**	100
	9/20/2010	8021B	**10**	**20**	**1.1**	**8.1**	<0.13	**120**	100
	3/18/2010[2]	8021B	**9.1**	**17**	**1.4**	**9.9**	NL	**16000**	120
West LDU	11/11/2010	8260B	**7.0**	**18**	**0.9**	**6.1**	<0.001	**16**	67
	9/20/2010	8021B	**3.1**	**5.8**	**0.36**	**2.9**	<0.0025	**9.0**	26
	3/18/2010[2]	8021B	**2.7**	**4.2**	**0.19**	**1.4**	NL	**16**	24
Oil Sump LDU	11/11/2010	8260B	**8.8**	**19**	**1.6**	**10**	<0.2	**390**	110
	9/20/2010	8021B	**9.4**	**29**	**6.1**	**40**	<0.5	**1400**	650
	3/18/2010[2]	8021B	**5.6**	**33**	**6.4**	**38**	<0.95	**35**	69

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STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
1) NMED Table 2a. TPH Screening Guidelines for Potable Ground Water (GW-1). (Oct 2006)
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES
2) Used unapproved 2010 FWGWMP sampling plan for the first quarter of 2010.

8.3.1 Leak Detection Units (East LDU, West LDU, Oil Sump LDU)
Total Metals Analytical Result Summary

			Parameters											
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**0.05**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**6.9E-03**	**NE**	**0.62**	**11**	**NE**	**0.32**	**0.078**	**0.071**	**6.3E-04**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**													
East LDU	11/11/2010	6010B	<0.1	0.94	<0.01	**0.12**	<0.03	**1.1**	<0.025	**1.6**	<0.25	<0.025	<0.0002	<0.001	<0.1
	9/20/2010	6010B	<0.02	0.54	<0.002	0.039	<0.006	**7.6**	<0.005	**0.8**	<0.05	<0.005	<0.0008	<0.005	0.21
	3/18/2010[2]	6010B	<0.1	**1.3**	<0.01	**0.25**	0.073	**24**	<0.025	**2.0**	<0.25	<0.025	<0.0008	<0.001	1.3
West LDU	11/11/2010	6010B	<0.02	0.5	<0.002	**0.15**	<0.006	0.66	<0.005	**0.68**	<0.05	<0.005	<0.0002	<0.001	<0.02
	9/20/2010	6010B	<0.02	0.27	<0.002	**0.067**	<0.006	0.31	NL	**0.84**	<0.05	<0.005	<0.0002	<0.05	<0.02
	3/18/2010[2]	6010B	<0.02	0.2	<0.002	**2.4**	<0.006	**5.3**	<0.005	**3.1**	<0.05	<0.005	<0.0008	<0.001	<0.05
Oil Sump LDU	12/14/2011	200.7	**0.012**	0.24	0.002	0.034	<0.006	0.59	<0.005	**0.37**	0.004	<0.005	<0.0002	<0.0025	0.018
	11/10/2010	6010B	<0.1	**7.2**	<0.01	**0.18**	0.25	**150**	**0.11**	**2.3**	<0.25	<0.025	**0.017**	<0.004	**7.9**
	9/20/2010	6010B	<0.1	**15**	<0.01	**0.23**	0.59	**130**	**0.24**	**1.6**	<0.25	<0.025	**0.011**	0.016	**13**
	3/18/2010[2]	6010B	<2.0	<2.0	<0.2	**1.1**	**4.5**	NL	**1.7**	**3.3**	<5.0	<0.5	<0.004	**4.61E-02**	**88**

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STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Primary Drinking Water Regulation (May 2009); Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES
2) Used unapproved 2010 FWGWMP sampling plan for the first quarter of 2010.

8.3.2 Leak Detection Units (East LDU, West LDU, Oil Sump LDU)
Dissolved Metals Analytical Result Summary

			Parameters										
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**6.9E-03**	**NE**	**0.62**	**11**	**NE**	**0.32**	**0.078**	**0.071**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**												
East LDU	11/11/2010	6010B	<0.02	0.33	<0.002	0.046	<0.006	0.16	<0.005	**0.59**	<0.05	<0.005	<0.001	<0.05
	9/20/2010	6010B	<0.02	0.31	<0.002	0.033	<0.006	0.14	<0.005	**0.73**	<0.05	<0.005	<0.005	<0.05
	3/18/2010[2]	6010B	<0.04	0.21	<0.004	**0.22**	<0.012	0.86	<0.01	**2**	<0.1	<0.01	<0.001	<0.1
West LDU	11/11/2010	6010B	<0.02	0.56	<0.002	**0.18**	<0.006	0.22	<0.005	**0.81**	<0.05	<0.005	<0.001	<0.05
	9/20/2010	6010B	<0.02	0.25	<0.002	**0.062**	<0.006	0.12	<0.005	**0.81**	<0.05	<0.005	<0.005	<0.05
	3/18/2010[2]	6010B	<01	0.16	<0.01	**2.3**	<0.03	**3.2**	<0.025	**2.9**	<0.25	<0.025	<0.001	<0.25
Oil Sump LDU	11/10/2010	6010B	<0.02	0.19	<0.002	0.037	<0.006	0.15	7.5E-03	**1.2**	<0.05	<0.005	<0.001	<0.05
	9/20/2010	6010B	<0.02	0.32	<0.002	0.03	<0.006	0.12	5.6E-03	**1.1**	<0.05	<0.005	<0.025	<0.05

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

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Primary Drinking Water Regulation (May 2009); Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES
2) Used unapproved 2010 FWGWMP sampling plan for the first quarter of 2010.

8.3.3 Leak Detection Units (East LDU, West LDU, Oil Sump LDU)
Volatile Organics Analytical Result Summary

			Parameters							
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	2-methyl naphthalene (mg/L)	Acetone (mg/L)	Isopropyl benzene (mg/L)	4-Methyl-2-pentanone (mg/L)	n-propyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.015**	**0.087**	**1.4E-04**	**0.027**	**12**	**NE**	**NE**	**NE**
SAMPLE ID	**DATE SAMPLED**	**METHOD**								
East LDU	11/11/2010	8260B[1]	NL	NL	NL	NL	NL	NL	NL	NL
	9/20/2010	8021B	**0.81**	**0.26**	NL	NL	NL	NL	NL	NL
West LDU	11/11/2010	8260B[1]	NL	NL	NL	NL	NL	NL	NL	NL
	9/20/2010	8021B	**0.34**	0.1	NL	NL	NL	NL	NL	NL
Oil Sump LDU	11/11/2010	8260B[1]	NL	NL	NL	NL	NL	NL	NL	NL
	9/20/2010	8021B	**12**	**4.6**	NL	NL	NL	NL	NL	NL

DEFINITIONS
NE = Not establishes
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

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

NOTES:
1) *Method 8260B Short List Run*

8.4 OW-1, OW-10
BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			**0.01**	**0.75**	**0.75**	**0.62**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**0.005**	**1.0**	**0.7**	**10**	**NE**
EPA RSL for Tap Water (April 2012)			**3.9E-04**	**0.86**	**1.3E-03**	**0.19**	**0.012**
Well ID	**DATE SAMPLED**	**METHOD**					
OW-1	11/10/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/21/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/15/2010[1]	8021B	<0.001	<0.001	<0.001	<0.0015	<0.001
OW-10	11/10/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**0.036**
	9/21/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	**0.037**
	3/15/2010[1]	8260B	<0.001	<0.001	<0.001	<0.0015	**0.033**

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

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

NOTES
1) Used unapproved 2010 Facility Wide Ground Water Monitoring Plan(FWGWMP) for first quarter 2010.
2) Began using approved FWGWMP (August 25, 2010) for sampling activities which requires these wells to be sampled.

8.4.1 C OW-1O

G . Chemistry Analytical Result Summary

			Parameters									
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	DRO (mg/L)	GRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6 to 9**	**0.2[1]**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**4.0**	**NE**	**NE**	**1**	**10**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.62**	**NE**	**NE**	**1.6**	**25**	**3.1E-04**	**NE**	**NE**	**NE**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**										
OW-1	11/10/2010	300.0/8015B	0.31	64	NL	<1.0	<1.0	<0.5	180	NA	<1.0	<0.05
	9/10/2010[3]	300.0/8015B	0.32	60	NL	<1.0	<1.0	<0.5	190	NA	<1.0	<0.05
	3/15/2010[2]	300.0/8015B	0.33	58	0.24	4.1	4.1	<0.5	190	NA	<1.0	<0.05
	12/15/2011	300.0/8015B	0.31	**420**	0.54	<1.0	<1.0	<0.5	150	NA	<1.0	0.084
OW-10	11/10/2010	300.0/8015B	0.38	**450**	NL	<1.0	<1.0	<0.5	150	NA	<0.001	<0.05
	9/10/2010[3]	300.0/8015B	0.35	**790**	NL	<1.0	<1.0	<0.5	160	NA	<0.001	<0.05
	3/15/2010[2]	300.0/8015B	0.4	**390**	0.7	**2.2**	2.2	<0.5	150	NA	<0.001	0.064

DEFINITIONS

NE = Not established

NA = Not analyzed

NL = Not listed on laboratory analysis

Bold and highlighted values represent values above the applicable standards

STANDARDS

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

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

1) NMED Table 2a. TPH Screening Guidelines for Potable Ground Water (GW-1). (Oct 2006)

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NOTES

2) Used unapproved 2010 Facility Wide Ground Water Monitoring Plan(FWGWMP) for first quarter 2010.

3) Began using approved FWGWMP (August 25, 2010) for sampling activities which requires these wells to be sampled.

8.4.2 OW-1, OW-10
Total Metals Analytical Result Summary

			Parameters										
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Mercury (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**0.05**	**1.0**	**0.05**	**0.2**	**0.05**	**0.05**	**0.03**	**0.002**	**10**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**0.1**	**NE**	**0.015[1]**	**NE**	**0.05**	**NE**	**0.03**	**0.002**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**6.9E-03**	**NE**	**11**	**NE**	**0.32**	**0.078**	**0.071**	**0.047**	**6.3E-04**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**												
OW-1	11/10/2010	6010B	<0.02	<0.02	<0.002	<0.006	<0.05	<0.005	6.6E-03	<0.05	<0.005	**0.039**	<0.0002	<0.02
	9/10/2010[3]	6010B	<0.02	0.038	<0.002	<0.006	0.081	<0.005	0.023	<0.05	<0.005	**0.038**	<0.0002	<0.02
	3/15/2010[2]	6010B	<0.02	0.031	<0.002	<0.006	0.16	<0.005	0.012	<0.05	<0.005	**3.94E-02**	<0.0002	<0.02
OW-10	11/10/2010	6010B	<0.02	0.062	<0.002	<0.006	<0.02	<0.005	0.04	<0.05	<0.005	**0.052**	<0.0002	<0.02
	9/10/2010[3]	6010B	<0.02	0.071	<0.002	<0.006	<0.02	<0.005	0.068	<0.05	<0.005	**0.057**	<0.0002	<0.02
	3/15/2010[2]	6010B	<0.02	0.046	<0.002	<0.006	<0.02	<0.005	0.013	<0.05	<0.005	**5.25E-02**	<0.0002	<0.02

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Primary Drinking Water Regulation (May 2009), Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES:
2) Used unapproved 2010 Facility Wide Ground Water Monitoring Plan(FWGWMP) for first quarter 2010.
3) Began using approved FWGWMP (August 25, 2010) for sampling activities which requires these wells to be sampled.

8.4.3 OW-1, OW-10
Total Metals Analytical Result Summary

			Parameters												
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silver (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**NE**	**0.05**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**0.05**	**NE**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**6.9E-03**	**NE**	**NE**	**0.62**	**11**	**NE**	**0.32**	**NE**	**0.078**	**0.071**	**NE**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**															
OW-1	11/10/2010	6010B	<0.02	0.037	<0.002	2.2	<0.006	<0.006	<0.02	<0.005	4.6E-03	<1.0	<0.05	<0.005	300	**0.04**	<0.05
	9/10/2010[3]	6010B	<0.02	0.029	<0.002	2.0	<0.006	<0.006	<0.02	<0.005	4.1E-03	<1.0	<0.05	<0.005	310	**0.038**	<0.05
	3/15/2010[2]	6010B	<0.02	0.028	<0.002	2.0	<0.006	<0.006	<0.02	<0.005	<0.002	<1.0	<0.05	<0.005	280	**3.79E-02**	<0.05
OW-10	11/10/2010	6010B	<0.02	0.047	<0.002	62	<0.006	<0.006	<0.02	<0.005	0.03	1.4	<0.05	<0.005	460	**0.052**	<0.05
	9/10/2010[3]	6010B	<0.02	0.064	<0.002	100	<0.006	<0.006	<0.02	<0.005	0.055	1.8	<0.05	<0.005	580	**0.051**	0.088
	3/15/2010[2]	6010B	<0.02	0.044	<0.002	48	<0.006	<0.006	<0.02	<0.005	0.012	<1.0	<0.05	<0.005	420	**4.97E-02**	<0.05

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Primary Drinking Water Regulation (May 2009), Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES
2) Used unapproved 2010 Facility Wide Ground Water Monitoring Plan(FWGWMP) for first quarter 2010.
3) Began using approved FWGWMP (August 25, 2010) for sampling activities which requires these wells to be sampled.

8.5 OW-13, OW-14, OW-29, OW-30
BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (June 8, 2012)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (April 2012)			3.9E-04	0.86	1.3E-03	0.19	0.012
Well ID	DATE SAMPLED	METHOD					
OW-13	11/8/2010	8260B	<0.001	<0.001	<0.001	<0.0015	3.8E-03
	9/22/2010	8260B	<0.001	<0.001	<0.001	<0.0015	3.1E-03
	6/7/2010	8021B	<0.001	<0.001	<0.001	<0.0015	2.7E-03
	3/25/2010	8021B	<0.001	<0.001	<0.001	<0.0015	2.3E-03
	11/3/2009	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	7/28/2009	8021B	<0.001	<0.001	<0.001	<0.0015	2.3E-03
	5/14/2009	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	2/24/2009	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/13/2008	8260B	<0.001	<0.001	<0.001	<0.002	1.6E-03
	8/19/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/27/2007	8260B	<0.001	<0.001	<0.001	<0.0015	1.3E-03
	10/27/2006	8260B	<0.001	<0.001	<0.001	<0.0015	<0.0025
OW-14	11/8/2010	8260B	**0.63**	<0.001	**0.018**	<0.0015	**1.3**
	9/22/2010	8260B	**0.47**	<0.001	**8.3E-03**	<0.0015	**1.4**
	6/7/2010	8260B	**0.33**	1.8E-03	**8.5E-03**	<0.0015	**1.4**
	3/24/2010	8260B	**0.25**	<0.005	**0.01**	<0.0075	**1.5**
	11/12/2009	8021B	**0.034**	0.003	**6.4E-03**	<0.002	**1.2**
	7/30/2009	8021B	**0.074**	3.3E-03	<0.001	<0.0015	**1.3**
	5/12/2009	8260B	**0.11**	2.9E-03	**4.9E-03**	<0.002	**0.97**
	2/23/2009	8260B	**0.013**	1.4E-03	**5.5E-03**	<0.001	**1.0**
	11/12/2008	8260B	**8.2E-03**	<0.001	<0.001	<0.0015	**0.91**
	8/21/2008	8260B	**3.5E-03**	<0.001	<0.001	<0.0015	**1.3**
	1/1/2008	8260B	**0.014**	<0.001	<0.001	<0.0015	**0.92**
	12/28/2006	8260B	**4.2E-03**	<0.001	**2.5E-03**	<0.003	**0.18**
	10/27/2006	8260B	**3.4E-03**	<0.001	<0.001	<0.003	**0.016**
OW-29	11/9/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**0.22**
	9/22/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**0.19**
	6/7/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**0.15**
	3/25/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**0.12**
	11/3/2009	8021B	<0.001	<0.001	<0.001	<0.002	**0.082**
	7/29/2009	8021B	<0.001	<0.001	<0.001	<0.0015	**0.049**
	5/14/2009	8260B	<0.001	<0.001	<0.001	<0.002	**0.041**
	2/25/2009	8260B	<0.001	<0.001	<0.001	<0.002	**0.021**
	11/14/2008	8260B	<0.001	<0.001	<0.001	<0.0015	**0.015**
	8/19/2008	8206B	<0.001	<0.001	<0.001	<0.0015	9.2E-03
	12/28/2007	8260B	<0.001	<0.001	<0.001	<0.0015	4.3E-03
	10/24/2006	8260B	<0.001	<0.001	<0.001	<0.003	<0.0025
OW-30	11/8/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**1.1**
	9/27/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**1.1**
	6/4/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**1.0**
	3/24/2010	8260B	<0.005	<0.005	<0.005	<0.0075	**1.1**

8.5 OW-13, OW-14, OW-29, OW-30
BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (June 8, 2012)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (April 2012)			3.9E-04	0.86	1.3E-03	0.19	0.012
Well ID	**DATE SAMPLED**	**METHOD**					
OW-30	11/2/2009	8021B	<0.001	<0.001	<0.001	<0.002	**1.1**
	7/30/2009	8021B	<0.001	<0.001	<0.001	<0.0015	**1.1**
	5/13/2009	8260B	<0.001	<0.001	<0.001	<0.002	**1.1**
	2/23/2009	8260B	<0.001	<0.001	<0.001	<0.002	**1.0**
	11/12/2008	8260B	<0.001	<0.001	<0.001	<0.0015	**0.88**
	8/20/2008	8260B	<0.001	<0.001	<0.001	<0.0015	**1.1**
	12/28/2007	8260B	<0.001	<0.001	<0.001	<0.0015	**0.29**
	10/27/2006	8260B	<0.001	<0.001	<0.001	<0.003	<0.0025

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

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

NOTES

8.5.1 OW-13, OW-14, OW-29, OW-30
Volatile Organic Analytical Result Summary

			Parameters								
			1,2,4-Trimethylbenzene (mg/L)	1,2-Dichloroethane (EDC) (mg/L)	Naphthalene (mg/L)	1-Methylnaphthalene (mg/L)	1,1-Dichloroethane (mg/L)	Isopropylbenzene (mg/L)	n-Butylbenzene (mg/L)	n-Propylbenzene (mg/L)	Sec-butylbenzene (mg/L)
WQCC 20NMAC 6.2.3103			**NE**	**0.01**	**0.03**	**NE**	**0.025**	**NE**	**NE**	**NE**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**NE**	**0.005**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.015**	**1.5E-04**	**1.4E-04**	**9.7E-04**	**2.4E-03**	**NE**	**0.78**	**NE**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**									
OW-13	11/8/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	9/22/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	6/7/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	3/25/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	11/3/2009	8021B[1]	<0.001	NL	NL	NL	NL	NL	NL	NL	NL
	7/28/2009	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	5/14/2009	8021B[1]	<0.001	NL	NL	NL	NL	NL	NL	NL	NL
	2/24/2009	8021B[1]	<0.001	NL	NL	NL	NL	NL	NL	NL	NL
	11/13/2008	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	8/19/2008	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	12/27/2007	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	10/27/2006	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
OW-14	11/8/2010	8260B	1.2E-03	**1.5E-03**	<0.002	**0.022**	<0.001	3.7E-03	<0.001	<0.001	2.7E-03
	9/22/2010	8260B	<0.001	**2.2E-03**	<0.002	**0.022**	<0.001	2.9E-03	<0.001	<0.001	2.8E-03
	6/7/2010	8260B	1.1E-03	**1.5E-03**	<0.002	**0.02**	<0.001	2.6E-03	<0.001	<0.001	2.4E-03
	3/24/2010	8260B	<0.005	<0.005	<0.01	<0.02	<0.005	<0.005	<0.005	<0.005	<0.005
	11/12/2009	8021B[1]	2.7E-03	NL	NL	NL	NL	NL	NL	NL	NL
	7/30/2009	8260B	<0.001	**1.7E-03**	<0.002	**0.021**	<0.001	3.3E-03	1.1E-03	<0.001	2.6E-03
	5/12/2009	8021B[1]	1.6E-03	NL	NL	NL	NL	NL	NL	NL	NL
	2/23/2009	8021B[1]	1.6E-03	NL	NL	NL	NL	NL	NL	NL	NL
	11/12/2008	8260B	<0.001	**1.8E-03**	<0.002	**0.016**	<0.001	1.5E-03	<0.001	<0.001	2.5E-03
	8/21/2008	8260B	<0.001	<0.001	<0.002	**0.012**	<0.001	1.6E-03	<0.001	<0.001	0.002
	1/1/2008	8260B	<0.001	<0.001	<0.002	**0.027**	<0.001	<0.001	0.052	<0.001	5.7E-03
	12/28/2006	8260B	<0.001	**1.8E-03**	<0.002	<0.004	**0.016**	<0.001	0.015	<0.001	2.5E-03
	10/27/2006	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
OW-29	11/9/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	9/22/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	6/7/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	3/25/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	11/2/2009	8021B[1]	<0.001	NL	NL	NL	NL	NL	NL	NL	NL
	7/29/2009	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001

8.5.1 OW-13, OW-14, OW-29, OW-30
Volatile Organic Analytical Result Summary

			Parameters								
			1,2,4-Trimethylbenzene (mg/L)	1,2-Dichloroethane (EDC) (mg/L)	Naphthalene (mg/L)	1-Methylnaphthalene (mg/L)	1,1-Dichloroethane (mg/L)	Isopropylbenzene (mg/L)	n-Butylbenzene (mg/L)	n-Propylbenzene (mg/L)	Sec-butylbenzene (mg/L)
WQCC 20NMAC 6.2.3103			**NE**	**0.01**	**0.03**	**NE**	**0.025**	**NE**	**NE**	**NE**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**NE**	**0.005**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.015**	**1.5E-04**	**1.4E-04**	**9.7E-04**	**2.4E-03**	**NE**	**0.78**	**NE**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**									
OW-29	5/13/2009	8021B[1]	<0.001	NL	NL	NL	NL	NL	NL	NL	NL
	2/24/2009	8021B[1]	<0.001	NL	NL	NL	NL	NL	NL	NL	NL
	11/14/2008	8260B	<0.001	**1.0E-03**	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	8/19/2008	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	12/28/2007	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	10/24/2006	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
OW-30	11/8/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	9/27/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	6/4/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	3/24/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	11/2/2009	8021B[1]	<0.001	NL	NL	NL	NL	NL	NL	NL	NL
	7/30/2009	8260B	<0.001	**1.3E-03**	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	5/13/2009	8021B[1]	<0.001	NL	NL	NL	NL	NL	NL	NL	NL
	2/23/2009	8021B[1]	<0.001	NL	NL	NL	NL	NL	NL	NL	NL
	11/12/2008	8260B	<0.001	**1.3E-03**	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	8/19/2008	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	12/28/2007	8260B	<0.001	**1.2E-03**	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	10/27/2006	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

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

NOTES
1) Method 8021B - Short List Run for analyticals

8.6 OW-50, OW-52
BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			**0.01**	**0.75**	**0.75**	**0.62**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**0.005**	**1.0**	**0.7**	**10**	**NE**
EPA RSL for Tap Water (April 2012)			**3.9E-04**	**0.86**	**1.3E-03**	**0.19**	**0.012**
Well ID	**DATE SAMPLED**	**METHOD**					
OW-50	11/9/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/27/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/1/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/16/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/17/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
OW-52	11/9/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/27/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/1/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/16/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/17/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

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

NOTES:

8.6.1 OW-50, OW-52
General Chemistry Analytical Result Summary

			Parameters										
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	DRO (mg/L)	GRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6 to 9**	**NE**	**0.2[1]**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**4.0**	**NE**	**NE**	**1**	**10**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.62**	**NE**	**NE**	**1.6**	**25**	**3.1E-04**	**NE**	**NE**	**NE**	**NE**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**											
OW-50	11/9/2010	300.0/8015B	0.51	29	NL	<0.1	<0.1	<0.5	160	8.26	1100	<1.0	<0.05
	9/27/2010	300.0/8015B	0.41	26	NL	<0.1	<0.1	<0.5	140	NA	NA	<1.0	<0.05
	6/1/2010	300.0/8015B	0.53	27	0.22	<0.1	<0.1	<0.5	140	8.35	1000	<1.0	<0.05
	3/16/2010	300.0/8015B	0.53	29	0.22	<0.1	<0.1	<0.5	150	8.34	1000	<1.0	<0.05
	11/17/2009	8015B Only	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<0.05
OW-52	11/9/2010	300.0/8015B	0.54	32	0.17	<0.1	<0.1	<0.5	140	8.27	1000	<1.0	<0.05
	9/27/2010	300.0/8015B	0.52	27	NL	<0.1	<0.1	<0.5	140	NA	NA	<1.0	<0.05
	6/1/2010	300.0/8015B	0.52	28	NL	<0.1	<0.1	<0.5	140	8.25	990	<1.0	<0.05
	3/16/2010	300.0/8015B	0.56	31	0.18	<0.1	<0.1	<0.5	150	8.23	990	<1.0	<0.05
	11/17/2009	8015B Only	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<0.05

DEFINITIONS
NE = Not established
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STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
1) NMED Table 2a. TPH Screening Guidelines for Potable Ground Water (GW-1). (Oct 2006)
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES

8.6.2 OW-50, OW-52

Total Metals Analytical Result Summary

			Parameters											
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**0.05**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (June 8 2012)			**0.01**	**2.0**	**0.005**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**6.9E-03**	**NE**	**0.62**	**11**	**NE**	**0.32**	**0.078**	**0.071**	**6.3E-04**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**													
OW-50	11/9/2010	200.7/200.8	**3.1E-03**	0.038	<0.002	<0.006	<0.006	<0.02	<0.005	0.079	5.5E-03	<0.005	<0.0002	NL	0.02
	9/27/2010	6010B	<0.02	0.041	<0.002	<0.006	<0.006	0.15	<0.005	0.032	<0.05	<0.005	<0.0002	0.006	<0.02
	6/1/2010	6010B	<0.02	0.042	<0.002	<0.006	NL	NL	<0.005	NL	<0.05	<0.005	<0.0002	NL	<0.02
	3/16/2010	6010B	<0.02	0.038	<0.002	<0.006	<0.006	<0.05	<0.005	0.079	<0.05	<0.005	<0.0002	6.26E-03	<0.02
	11/17/2009	6010B	<0.02	0.042	<0.002	<0.006	NL	NL	<0.005	NL	<0.05	<0.005	<0.0002	NL	NL
OW-52	11/19/2010	200.7/200.8	<0.0025	0.026	<0.002	<0.006	<0.006	0.056	<0.005	0.028	4.6E-03	<0.005	<0.0002	NL	<0.01
	9/27/2010	6010B	<0.02	0.025	<0.002	<0.006	<0.006	0.065	<0.005	0.03	<0.05	<0.005	<0.0002	0.01	<0.02
	6/1/2010	6010B	<0.02	0.024	<0.002	<0.006	NL	NL	<0.005	NL	<0.05	<0.005	<0.0002	NL	NL
	3/16/2010	6010B	<0.02	0.027	<0.002	<0.006	<0.006	0.15	<0.005	0.032	<0.05	<0.005	<0.0002	1.03E-02	<0.02
	11/17/2009	6010B	<0.02	0.027	<0.002	<0.006	NL	NL	<0.005	NL	<0.05	<0.005	<0.0002	NL	NL

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

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1. National Primary Drinking Water Regulation (May 2009); Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES

8.6.3 OW-50, OW-52
Dissolved Metals Analytical Result Summary

			Parameters												
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silver (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**NE**	**0.05**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**0.05**	**NE**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**6.9E-03**	**NE**	**NE**	**0.62**	**11**	**NE**	**0.32**	**NE**	**0.078**	**0.071**	**NE**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**															
OW-50	11/9/2010	200.7/200.8	NL	0.037	<0.002	NL	<0.006	<0.006	<0.02	<0.005	0.078	<1.0	1.4E-03	<0.005	NL	NL	<0.01
	9/27/2010	6010B	<0.02	0.04	<0.002	21	<0.006	<0.006	<0.02	<0.005	0.081	<1.0	<0.05	<0.005	220	0.006	0.064
	6/1/2010	6010B	<0.02	0.04	<0.002	20	<0.006	<0.006	<0.02	<0.005	0.083	<1.0	<0.05	<0.005	220	NL	<0.05
	3/16/2010	6010B	<0.02	0.036	<0.002	19	<0.006	<0.006	<0.02	<0.005	0.076	<1.0	<0.05	<0.005	210	6.41E-03	<0.05
OW-52	11/9/2010	200.7/200.8	NL	0.025	<0.02	4.2	<0.006	<0.006	0.048	<0.005	0.027	1.2	NL	<0.005	240	NL	<0.01
	9/27/2010	6010B	<0.02	0.026	<0.002	4.3	<0.006	<0.006	0.058	<0.005	0.031	1.2	<0.05	<0.005	230	0.009	0.079
	6/1/2010	6010B	<0.02	0.026	<0.002	4.0	<0.006	<0.006	0.058	<0.005	0.032	1.2	<0.05	<0.005	230	9.26E-03	<0.05
	3/16/2010	6010B	<0.02	0.023	<0.002	3.9	<0.006	<0.006	0.034	<0.005	0.028	1.1	<0.05	<0.005	230	9.2E-03	<0.05

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1. National Primary Drinking Water Regulation (May 2009); Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES:

8.6.4 OW-50, OW-52

Volatile Organic Analytical Result Summary

			Parameters	
			Benzoic Acid (mg/L)	Bis(2-ethylhexyl)phthalate (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE
40 CFR 141.62 MCL (June 8, 2012)			NE	NE
EPA RSL for Tap Water (April 2012)			58	7.2E-05
Well ID	DATE SAMPLED	METHOD		
OW-50	11/9/2010	8270C	<0.02	<0.01
	9/27/2010	8270C	<0.02	<0.01
	6/1/2010	8270C	<0.02	<0.01
	3/16/2010	8270C	0.02	**0.011**
	11/17/2009	8270C	<0.02	<0.01

DEFINITIONS

NE = Not establishes
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or less:
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES

8.7 GWM-1, GWM-2, GWM-3
BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			**0.01**	**0.75**	**0.75**	**0.62**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**0.005**	**1**	**0.7**	**10**	**NE**
EPA RSL for Tap Water (April 2012)			**3.9E-04**	**0.86**	**1.3E-03**	**0.19**	**0.012**
Well ID	**DATE SAMPLED**	**METHOD**					
GWM-1	11/2/2010	8260B	**6.9E-03**	2.3E-03	**3.5E-03**	0.022	**0.062**
	9/16/2010	8260B	**7.5E-03**	4.9E-03	**6.7E-03**	0.03	**0.053**
	7/20/2010[3]	8260B	**0.008**	0.002	**6.8E-03**	0.03	**0.077**
	3/3/2010[1]	8260B	**0.012**	0.005	**0.011**	0.05	**0.078**
	7/27/2009	8260B	**8.9E-03**	0.002	**7.4E-03**	0.034	**0.085**
	7/10/2008	8260B	**0.011**	2.1E-03	**3.9E-03**	0.019	**0.12**
	5/24/2007	8260B	**0.016**	<0.001	<0.001	<0.003	**0.23**
	10/27/2006	8260B	**0.012**	<0.001	>0.001	<0.003	**0.16**
GWM-2[2]	10/4/2010	8260B	<0.001	<0.001	<0.001	<0.003	0.011
	9/16/2010	8260B	<0.001	<0.001	<0.001	<0.003	0.011
	2/28/2010	8260B	<0.001	<0.001	<0.001	<0.0015	0.028
GWM-3[2]	10/4/2010	8260B	<0.001	<0.001	<0.001	<0.003	9.2E-03
	9/16/2010	8260B	<0.001	<0.001	<0.001	<0.003	0.009

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

NOTES:
1) Used unapproved 2010 Facility Wide Ground Water Monitoring Plan (FWGWMP) for first quarter 2010. GWM-1 sample schedule is on an annual basis.

2) GWM-2 and GWM-3 are normally dry wells. Water was detected during quarterly inspections.

8.7.1 GWM-1, GWM-2, GWM-3
General Chemistry Analytical Result Summary

			Parameters									
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	DRO (mg/L)	GRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6 to 9**	**NE**	**0.2[1]**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**4.0**	**NE**	**NE**	**1**	**10**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.62**	**NE**	**NE**	**1.6**	**25**	**3.1E-04**	**NE**	**NE**	**NE**	**NE**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**											
GWM-1	11/2/2010	300.0/8015B	**3.5**	**1300**	NL	<1.0	<1.0	<5.0	26	NA	NA	**6.0**	0.68
	9/16/2010	300.0/8015B	**2.9**	**1400**	NL	<4.0	<4.0	<5.0	48	NA	NA	**7.7**	0.71
	7/20/2010[4]	300.0	**2.9**	**1500**	2.6	<4.0	<4.0	<2.5	57	7.18	6400	NA	NA
	3/3/2010[2]	300.0/8015B	**2.1**	**1600**	2.7	<4.0	<4.0	<0.5	**88**	NA	NA	**3.9**	0.88
	7/27/2009	300.0	**2.1**	**1600**	NL	<4.0	<4.0	<0.5	73	7.03	6200	NA	NA
	7/10/2008	300.0	**1.7**	**1800**	NL	<2.0	<2.0	<0.5	110	6.92	7400	NA	NA
	5/24/2007	300.0	**1.9**	**1800**	NL	<2.0	<2.0	<0.5	120	NL	NL	NL	NL
	10/26/2006	300.0	**2.0**	**3700**	NL	<2.0	<2.0	<2.5	120	6.87	NA	NA	NA
GWM-2[3]	10/4/2010	300.0/8015B	0.52	**1800**	3.4	<4.0	<4.0	<0.5	**740**	NA	NA	<1.0	<0.05
	9/16/2010	300.0/8015B	0.46	**1400**	NL	<4.0	<4.0	<5.0	**700**	NA	NA	<1.0	<0.05
	2/28/2008	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<0.05
GWM-3[3]	10/4/2010	300.0/8015B	**5.9**	**1800**	2.3	**61**	**61**	<0.5	**1500**	NA	NA	**1.3**	0.12
	9/16/2010	300.0/8015B	**4.7**	**2000**	NL	**66**	**66**	<5.0	**1500**	NA	NA	**3.7**	0.066

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STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
1) NMED Table 2a. TPH Screening Guidelines for Potable Ground Water (GW-1). (Oct 2006)
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES
2) Used unapproved Facility Wide Ground Water Monitoring Plan (FWGWMP) for first quarter 2010. GWM-1 sample schedule is on an annual basis.
3) GWM-2 and GWM-3 are normally dry wells. Water was detected during quarterly inspections.
4) Annual sampling event.

8.7.2 GWM-1

Total Metals Analytical Result Summary

			Parameters														
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.50E-05**	**2.9**	**6.9E-03**	**NE**	**NE**	**0.62**	**11**	**NE**	**NE**	**0.32**	**NE**	**0.078**	**NE**	**6.30E-04**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**																
GWM-1	11/2/2010	6010B	**0.14**	**1.4**	<0.002	NL	<0.006	<0.006	**7.9**	9.5E-03	NL	**3.0**	NL	<0.05	NL	<0.0002	0.009	0.025
	9/16/2010[4]	6010B	**0.12**	0.87	<0.002	NL	<0.006	9.8E-03	**15**	0.012	NL	**2.9**	NL	<0.05	NL	<0.0002	0.015	0.023
	7/20/2010[3]	6010B	**0.16**	**1.2**	<0.002	NL	<0.006	0.019	**20**	0.011	NL	**3.0**	NL	<0.05	NL	<0.0002	0.011	0.031
	3/3/2010[2]	6010B	**0.098**	0.42	<0.002	NL	<0.006	7.2E-03	**15**	7.8E-03	NL	**3.0**	NL	<0.05	NL	<0.0002	2.24E-02	0.03
	7/27/2009	6010B	**0.114**	0.53	<0.002	310	<0.006	<0.006	**14**	7.2E-03	78	**3.2**	3.0	<0.001	1300	<0.0002	1.59E-02	0.025
	7/10/2008	6010B	**0.07**	0.45	<0.002	350	<0.006	0.014	**14**	0.01	81	**3.6**	3.3	<0.05	1400	<0.0002	NL	<0.05
	5/24/2007	6010B	**0.081**	0.44	<0.002	360	<0.006	NL	NL	<0.005	87		3.7	<0.05	1300	<0.0002	NL	NL
	10/26/2006	6010B	**0.077**	0.53	<0.002	380	<0.006	NL	NL	NL	93		4.2	NL	1400	<0.0002	NL	NL

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Primary Drinking Water Regulation (May 2009), Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES
2) Used unapproved 2010 Facility Wide Ground Water Monitoring Plan (FWGWMP) for first quarter 2010. GWM-1 sample schedule is on an annual basis.
3) Annual sampling event.
4) Began using approved 2010 FWGWMP (August 25, 2010).

8.7.3 GWM-1, GWM-2, GWM-3
Dissolved Metals Analytical Result Summary

			Parameters													
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.50E-05**	**2.9**	**6.90E-03**	**NE**	**NE**	**0.62**	**11**	**NE**	**NE**	**0.32**	**NE**	**0.078**	**NE**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**															
GWM-1	11/2/2010	6010B	<0.2	**1.3**	<0.002	330	<0.006	<0.006	**5.2**	9.4E-03	75	**3.0**	2.9	<0.05	1100	0.007	NL
	9/16/2010[5]	6010B	**0.12**	**1.2**	<0.002	310	<0.006	8.7E-03	**15**	8.6E-03	76	**2.9**	2.8	<0.25	1200	0.01	NL
	7/20/2010[4]	6010B	**0.15**	**1.1**	<0.002	310	<0.006	<0.006	**14**	5.6E-03	70	**2.9**	3.1	<0.05	1200	NL	<0.05
	3/2/2010[2]	6010B	**0.074**	0.38	<0.002	280	<0.006	<0.006	**12**	8.4E-03	57	**2.7**	2.9	<0.05	1200	0.028	0.059
GWM-2[3]	10/4/2010	CATIONS	NA	NA	NA	420	NA	NA	NA	NA	77	NA	3.0	NA	910	NA	NA
	9/16/2010	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GWM-3[2]	10/4/2010	CATIONS	NA	NA	NA	450	NA	NA	NA	NA	89	NA	7.6	NA	1300	NA	NA
	9/16/2010	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Primary Drinking Water Regulation (May 2009), Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES
2) Used unapproved 2010 FWGWMP sampling guidelines for first quarter 2010 which lists this well to be sampled on a quarterly basis. (GWM-1 is on an annual sampling schedule)
3) GWM-2 and GWM-3 are normally dry wells. Water was detected during quarterly inspections.
4) Annual sampling event.
5) Began using approved 2010 FWGWMP (August 25, 2010).

8.7.4 GWM-1

Volatile Organics Analytical Result Summary

			Parameters									
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	Isopropyl benzene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	2,4-Dimethyl phenol (mg/L)
WQCC 20NMAC 6.2.3103			**NE**	**NE**	**0.03**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.015**	**0.087**	**1.4E-04**	**9.7E-04**	**0.027**	**12**	**NE**	**0.78**	**NE**	**0.27**
Well ID	**DATE SAMPLED**	**METHOD**										
GWM-1	11/2/2010	8260B	7.5E-03	<0.001	<0.02	**0.011**	<0.004	<0.01	<0.001	1.6E-03	1.2E-03	NL
	9/16/2010	8260B[4]	0.012	1.9E-03	NA	NA	NA	NA	NA	NA	NA	NA
	7/20/2010[2]	8260B/8270C	0.013	<0.001	**3.5E-03**	**7.2E-03**	<0.004	0.012	1.6E-03	1.9E-03	1.5E-03	0.052
	3/3/2010[1]	8260B	8.1E-03	<0.005	<0.01	<0.02	<0.02	<0.05	<0.005	<0.005	<0.005	NL
	7/27/2009	8260B/8270C	6.4E-03	1.1E-03	**2.4E-03**	**9.7E-03**	<0.004	<0.01	2.6E-03	<0.001	2.0E-04	0.064
	7/10/2008	8260B	4.6E-03	<0.002	<0.002	<0.008	<0.008	<0.02	<0.002	<0.002	<0.002	0.028
	5/24/2007	8260B/8270C	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1	<0.01	<0.01	<0.01	<0.01

DEFINITIONS	**STANDARDS**
NE = Not established	WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
NA = Not analyzed	a) Human Health Standards; b) Other Standards for Domestic Water
NL = Not listed on laboratory analysis	40 CFR 141.62 Detection Limits for Inorganic Contaminants
Bold and highlighted values represent values above the applicable standards	EPA Regional Screening Level (RSL) Summary Table

NOTES:

1) Used unapproved 2010 Facility Wide Ground Water Monitoring Plan (FWGWMP) for first quarter 2010. GWM-1 is sample schedule is on an annual basis.

2) Annual sampling event.

3) Began using approved 2010 FWGWMP (August 25, 2010).

4) Method 8260B volatiles short list only run.

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

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (June 8, 2012)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (April 2012)			3.9E-04	0.86	1.3E-03	0.19	0.012
Well ID	**DATE SAMPLED**	**METHOD**					
NAPIS 1	11/2/2010	8260B	<0.01	<0.01	<0.01	<0.003	<0.0015
	9/15/2010	8260B	<0.01	<0.01	<0.01	<0.002	<0.0025
	6/8/2010	8021B	<0.01	<0.01	<0.01	<0.002	<0.0025
	3/8/2010	8021B	<0.01	<0.01	<0.01	<0.002	<0.0025
	11/23/2009	8260B	<0.001	1.6E-03	<0.001	<0.002	<0.0025
	8/11/2009	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	5/28/2009	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	3/24/2009	8260B	<0.001	0.001	<0.001	<0.002	<0.0025
	11/10/2008	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	9/30/2008	8260B	<0.001	<0.001	<0.001	<0.002	NA
	7/9/2008	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	4/11/2008	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
NAPIS 2	11/2/2010	8260	**0.015**	<0.005	<0.001	<0.002	**0.27**
	9/15/2010	8260B	**0.066**	<0.001	**8.3E-03**	<0.0015	**0.23**
	6/10/2010	8021B	**0.14**	<0.005	**9.6E-03**	<0.001	**0.23**
	3/8/2010	8260B	**0.83**	1.4E-03	**0.016**	2.1E-03	**0.25**
	11/23/2009	8260B	**0.032**	0.001	**9.3E-03**	<0.002	**0.094**
	8/11/2009	8260B	**0.057**	<0.001	**0.022**	<0.002	**0.089**
	5/28/2009	8260B	**0.028**	<0.005	**5.3E-03**	<0.01	**0.13**
	3/24/2009	8260B	**0.019**	1.1E-03	**8.1E-03**	<0.002	**0.09**
	11/10/2008	8260B	**0.025**	<0.001	**0.011**	<0.002	**0.18**
	9/30/2008	8260B	**0.016**	<0.001	**1.6E-03**	4.1E-03	NA
	7/9/2008	8260B	**0.013**	<0.001	**0.011**	5.6E-03	**0.2**
	4/11/2008	8260B	**0.91**	0.019	**0.051**	0.12	**0.32**
NAPIS 3	11/2/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.0015
	9/15/2010	8021B	**0.001**	<0.001	<0.001	<0.002	<0.0025
	6/10/2010	8260B	**0.2**	<0.001	**0.012**	<0.002	**0.08**
	3/8/2010	8260B	**0.072**	<0.001	0.001	<0.002	<0.0025
	11/23/2009	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	8/31/2009	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	6/15/2009	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	3/25/2009	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/10/2008	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
KA 3	11/2/2010	8260B	**0.23**	<0.001	**0.014**	<0.03	**0.1**
	9/15/2010	8260B	**0.52**	<0.001	**0.031**	<0.03	**0.11**
	6/10/2010	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	3/8/2010	8021B	<0.01	<0.01	<0.01	<0.01	<0.01
	11/23/2009	8260B	<0.001	<0.001	<0.001	<0.002	**0.077**
	8/31/2009	8260B	<0.001	<0.001	<0.001	<0.002	**0.17**
	5/28/2009	8260B	**0.0033**	0.0012	<0.001	<0.002	**0.13**
	3/25/2009	8260B	<0.001	<0.001	<0.001	<0.002	**0.11**
	7/9/2008	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/10/2008	8260B	<0.001	<0.001	<0.001	<0.002	**0.13**
	9/30/2008[1]	8260B	NA	NA	NA	NA	NA

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

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (June 8, 2012)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (April 2012)			3.9E-04	0.86	1.3E-03	0.19	0.012
Well ID	DATE SAMPLED	METHOD					

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

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

NOTES
1) Water level too shallow to sample.

8.8.1 NAPIS 1, NAPIS 2, NAPIS 3, KA-3
General Chemistry Analytical Result Summary

			Parameters										
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	DRO (mg/L)	GRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6 TO 9**	**NE**	**0.2[1]**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**4.0**	**NE**	**NE**	**1**	**10**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.62**	**NE**	**NE**	**1.6**	**25**	**3.1E-04**	**NE**	**NE**	**NE**	**NE**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**											
NAPIS 1	11/2/2010	300.0	**0.96**	200	NL	<2.0	6.9	<0.5	98	NA	NA	<1.0	<0.05
	9/15/2010	300.0	0.5	189	NL	**11.2**	**11.2**	**0.019**	65	NA	NA	<1.0	<0.05
	6/8/2010	300.0	**0.73**	170	2.2	**4.0**	4	<0.5	56	7.86	1800	<1.0	<0.05
	3/8/2010	300.0	**0.75**	130	1.7	**2.0**	2	<0.5	52	NA	NA	<1.0	<0.05
	11/23/2009	300.0	**1.4**	170	NL	**1.8**	1.8	<0.5	100	7.39	2000	<1.0	<0.05
	8/11/2009	300.0	**1.2**	160	NL	0.54	0.54	<0.5	93	7.67	1800	<1.0	<0.05
	5/28/2009	300.0	**1.2**	150	NL	0.31	0.31	<0.5	71	7.82	1900	<1.0	<0.05
	3/24/2009	300.0	**0.69**	120	NL	<1.0	<1.0	<0.5	38	7.69	2000	<1.0	<0.05
	11/10/2008	300.0	**0.73**	160	NL	<0.1	1.6	<0.5	63	7.3	1900	<1.0	<0.05
	9/30/2008	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<0.05
	7/9/2008	300.0	**1.4**	180	NL	<1.0	<1.0	<0.5	98	7.27	1900	<1.0	<0.05
	4/11/2008	300.0	**0.79**	170	NL	0.55	0.55	<0.5	<0.5	7.26	2000	<1.0	<0.05
NAPIS 2	11/2/2010	300.0	**1.7**	230	NL	<1.0	<1.0	<0.5	7.80	NA	NA	**5.1**	0.57
	9/15/2010	300.0	**1.3**	220	NL	<0.5	<0.5	**0.01**	6.00	NA	NA	**5.3**	1
	6/10/2010	300.0	**1.2**	**340**	1.2	<1.0	<1.0	<2.5	8.70	7.8	1800	**6.3**	1.3
	3/8/2010	300.0	**1.4**	**320**	1.0	<1.0	<1.0	<0.05	11.00	NA	NA	**3.8**	1
	11/23/2009	300.0	**1.6**	220	NL	<1.0	<1.0	<0.05	13	7.16	1500	**2.7**	0.78
	8/11/2009	300.0	**1.7**	**250**	NL	<1.0	<1.0	<0.05	17	7.56	1500	**2.9**	0.62
	5/28/2009	300.0	**1.7**	210	NL	0.16	0.16	<0.05	22	7.51	1400	**3.4**	0.53
	3/24/2009	300.0	**1.5**	240	NL	<1.0	<1.0	<0.05	23	7.47	1800	**4.3**	0.37
	11/10/2008	300.0	**1.4**	200	NL	<1.0	<1.0	<0.05	32	7.21	1600	**4.0**	0.59
	9/30/2008	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	**3.9**	0.48
	7/9/2008	300.0	**1.1**	**270**	NL	<1.0	<1.0	<0.5	33	7.18	2000	**2.4**	0.74
	4/11/2008	300.0	**0.92**	**360**	NL	<1.0	<1.0	<0.5	42	7	2100	**1.5**	2.2
NAPIS 3	11/2/2010	300.0	0.48	**1100**	NL	**18**	**18**	<0.5	430	NA	NA	<1.0	<0.05
	9/15/2010	300.0	**NL**	**1040**	NL	**24.1**	**24.1**	**0.023**	290	NA	NA	<1.0	<0.05
	6/10/2010	300.0	**1.5**	**260**	1.1	<1.0	<1.0	<0.5	39	7.84	1600	**1.8**	0.89
	3/8/2010	300.0	0.46	**1000**	4.4	**17**	**17**	<0.5	400	NA	NA	<1.0	<0.5
	11/23/2009	300.0	0.49	**1100**	NL	**15**	**15**	<0.5	370	7.91	4400	<1.0	<0.05
	8/31/2009	300.0	0.47	**1000**	NL	**14**	**14**	<0.5	<10	8.07	4000	<1.0	<0.05
	6/15/2009	300.0	0.46	**1200**	NL	**18**	**18**	<0.5	330	8.23	4200	<1.0	<0.05
	3/25/2009	300.0	0.43	**1200**	NL	<1.0	**14**	<0.5	340	8.11	5200	<1.0	<0.05

8.8.1 NAPIS 1, NAPIS 2, NAPIS 3, KA-3
General Chemistry Analytical Result Summary

			Parameters									
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	DRO (mg/L)	GRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6 TO 9**	**NE**	**0.2[1]**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**4.0**	**NE**	**NE**	**1**	**10**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.62**	**NE**	**NE**	**1.6**	**25**	**3.1E-04**	**NE**	**NE**	**NE**	**NE**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**											
NAPIS 3	11/10/2008	300.0	**1.1**	**1100**	NL	<1.0	2.6	<0.5	310	8.05	4300	<1.0	<0.05
	9/30/2008[2]	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/9/2008	300.0	0.46	**1100**	NL	**9.1**	9.1	<0.5	270	8.29	4200	<1.0	<0.05
KA 3	11/2/2010	300.0	**1.7**	**260**	NL	<1.0	<1.0	<5.0	38	NA	NA	**1.7**	0.68
	9/15/2010	300.0	**1.4**	**277**	NL	<0.5	<0.5	**0.013**	37	NA	NA	**3.0**	1.9
	6/10/2010	300.0	0.38	**1100**	4.7	**17**	**17**	<0.05	390	8.21	3600	<1.0	<0.05
	3/8/2010	300.0	**1.6**	**410**	1.5	**5.5**	5.5	<0.05	90	NA	NA	<1.0	0.47
	11/23/2009	300.0	**1.3**	**610**	NL	**3.2**	3.2	<0.05	120	7.31	2900	<1.0	0.19
	8/31/2009	300.0	**2.4**	230	NL	<2.0	<2.0	<0.05	50	7.58	1500	**1.4**	0.52
	5/28/2009	300.0	**1.6**	**260**	NL	0.22	0.22	<0.05	66	7.71	1700	<1.0	0.32
	3/25/2009	300.0	**1.5**	**340**	NL	<1.0	0.9	<0.05	76	7.64	2400	<1.0	0.18
	11/10/2008	300.0	0.46	**590**	NL	**2.0**	**11**	<0.05	140	7.34	2700	<1.0	0.15
	9/30/2008[2]	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analyses
BOLD values represent values above the applicable standard

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
1) NMED Table 2a, TPH Screening Guidelines for Potable Ground Water (GW-1). (Oct 2006)
40 CFR 141.62 Detection limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES
2) *Water level too shallow for collect samples.*

8.8.2 NAPIS 1, NAPIS 2, NAPIS 3, KA 3
Total Metals Analytical Result Summary

			Parameters									
			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**0.05**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**NE**	**0.62**	**11**	**NE**	**0.32**	**0.078**	**6.3E-04**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**											
NAPIS 1	11/2/2010	6010B	<0.02	0.26	6.2E-03	<0.006	**6.4**	<0.005	0.16	<0.05	<0.0002	**0.045**	0.027
	9/15/2010	6010B	<0.02	0.19	<0.006	<0.006	0.56	<0.005	0.044	<0.05	<0.0002	0.018	<0.02
	6/8/2010	6010B	<0.02	0.18	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	3/8/2010	6020A	<0.001	0.133	1.06E-03	2.64E-03	0.548	<0.001	1.47E-02	<0.001	<0.0001	**0.273**	4.85E-03
	11/23/2009	6010B	<0.02	0.2	7.7E-03	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	8/11/2009	6010B	<0.02	0.11	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	5/28/2009	6010B	<0.02	0.091	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	3/24/2009	6010B	<0.02	0.1	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	10/14/2008	6010B	<0.02	0.17	<0.01	NL	NL	<0.005	NL	<0.02	<0.0002	NL	NL
NAPIS 2	11/2/2010	6010B	<0.02	**1.2**	<0.006	<0.006	**4.2**	<0.005	**1.2**	<0.05	<0.0002	NL	<0.02
	9/15/2010	6010B	<0.02	**1.4**	<0.006	<0.006	**4.3**	<0.005	**1.1**	<0.05	<0.0002	<0.001	<0.02
	6/10/2010	6010B	<0.02	**1.7**	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	3/8/2010	6020A	**4.57E-03**	**2.07**	1.05E-03	2.46E-03	**4.71**	1.38E-03	**1.25**	<0.001	<0.0001	<0.001	7.07E-03
	11/23/2009	6010B	<0.02	**1.1**	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	8/11/2009	6010B	<0.02	0.94	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	5/28/2009	6010B	<0.02	0.65	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
NAPIS 3	11/2/2010	6010B	<0.02	0.096	7.5E-03	0.012	**2.6**	0.011	0.12	<0.05	<0.0002	**0.032**	0.59
	9/15/2010	6010B	<0.02	0.11	**0.098**	0.014	**3.9**	0.012	0.15	<0.05	<0.0002	**0.035**	0.36
	6/10/2010	6010B	<0.02	0.54	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	3/8/2010	6020A	**1.58E-03**	9.79E-02	3.96E-03	3.19E-03	0.338	1.23E-03	0.0176	3.73E-03	<0.0002	**3.19E-02**	9.41E-03
NAPIS 3	11/23/2009	6010B	<0.02	0.15	7.2E-03	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	8/31/2009	6010B	<0.02	0.092	<0.01	NL	NL	<0.005	NL	<0.02	<0.0002	NL	NL
	6/15/2009	6010B	<0.02	0.14	<0.01	NL	NL	<0.005	NL	<0.02	<0.0002	NL	NL
	3/25/2009	6010B	<0.02	0.13	<0.01	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
KA 3	11/2/2010	6010B	<0.02	0.6	<0.006	<0.006	**1.2**	<0.005	**1.4**	<0.05	<0.0002	NL	<0.02
	9/15/2010	6010B	<0.02	0.47	**0.096**	<0.006	**1.6**	<0.005	**1.3**	<0.05	<0.0002	0.003	<0.02
	6/10/2010	6010B	<0.02	0.17	6.4E-03	NL	NL	<0.005	NL	<0.05	<0.0002	NL	<0.02
	3/8/2010	6020A	**0.011**	0.335	1.4E-03	1.14E-02	**2.35**	3.03E-03	**2.1**	<0.001	<0.0001	6.52E-03	2.11E-02
	11/23/2009	6010B	<0.02	0.55	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	8/31/2009	6010B	<0.02	0.22	<0.01	NL	NL	<0.005	NL	<0.02	<0.0002	NL	NL
	5/28/2009	6010B	<0.02	0.29	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	3/25/2009	6010B	<0.02	0.22	<0.006	NL	NL	5.50E-03	NL	<0.05	<0.0002	NL	NL

8.8.2 NAPIS 1, NAPIS 2, NAPIS 3, KA 3
Total Metals Analytical Result Summary

			Parameters									
			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	1.0	0.05	1.0	1.0	0.05	0.2	0.05	0.002	0.03	10
40 CFR 141.62 MCL (June 8, 2012)			0.01	2.0	0.1	1.3[1]	NE	0.015[1]	NE	0.05	0.002	0.03	NE
EPA RSL for Tap Water (April 2012)			4.5E-05	2.9	NE	0.62	11	NE	0.32	0.078	6.3E-04	0.047	4.7
Well ID	DATE SAMPLED	METHOD											

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Primary Drinking Water Regulation (May 2009); Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES

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

			Parameters												
			Arsenic (mg/L)	Barium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**0.62**	**11**	**NE**	**NE**	**0.32**	**NE**	**0.078**	**NE**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**														
NAPIS 1	11/2/2010	6010B	<0.1	0.13	75	<0.006	<0.006	0.057	<0.005	14	0.016	<5.0	<0.25	420	**0.034**	NL
	9/15/2010	6010B	<0.02	0.18	100	<0.006	<0.006	0.29	6.4E-03	18	6.6E-03	<1.0	<0.05	370	0.011	NL
	6/8/2010	6010B	<0.2	0.13	72	<0.006	NL	NL	<0.005	13	NL	<1.0	<0.05	370	NL	NL
	3/8/2010	6020A	**1.08E-03**	0.139	65.5	<0.001	2.1E-03	<0.01	<0.001	11.5	<0.001	0.829	1.24E-04	322	2.79E-02	2.58E-02
	11/23/2009[2]	6010B	NL	0.2	58	7.7E-03	NL	NL	<0.005	13	NL	3.7	NL	390	NL	NL
	8/11/2009[2]	6010B	NL	0.11	56	<0.006	NL	NL	<0.005	11	NL	1.7	NL	380	NL	NL
	5/28/2009[2]	6010B	NL	0.091	57	<0.006	NL	NL	<0.005	11	NL	<1.0	NL	390	NL	NL
	3/24/2009[2]	6010B	NL	0.1	67	<0.006	NL	NL	<0.005	12	NL	<1.0	NL	340	NL	NL
	11/10/2008[2]	6010B	<0.02	0.13	78	<0.006	NL	NL	<0.005	14	NL	1.2	<0.25	390	NL	NL
	9/30/2008[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/9/2008[2]	6010B	NL	NL	70	NL	NL	NL	NL	12	NL	2.1	NL	430	NL	NL
	4/11/2008[2]	6010B	NL	NL	72	NL	NL	NL	NL	13	NL	1.5	NL	370	NL	NL
NAPIS 2	11/2/2010	6010B	<0.1	**1.4**	73	<0.006	<0.006	**2.9**	<0.005	14	**1.2**	<1.0	<0.05	320	NL	NL
	9/15/2010	6010B	<0.02	**1.5**	69	<0.006	<0.006	**3.7**	<0.005	13	**1.0**	<1.0	<0.05	310	<0.001	NL
	6/10/2010	6010B	<0.02	**1.7**	80	<0.006	NL	NL	<0.005	16	NL	<1.0	<0.05	320	NL	NL
	3/8/2010	6020A	**4.73E-03**	**1.73**	85	<0.001	<0.001	**3.82**	<0.001	15.7	**1.06**	0.278	<0.001	319	<0.001	5.3E-02
	11/23/2009[2]	6010B	NL	**1.1**	56	<0.006	NL	NL	<0.005	11	NL	<1.0	NL	350	NL	NL
	8/11/2009[2]	6010B	NL	0.94	57	<0.006	NL	NL	<0.005	11	NL	<1.0	NL	300	NL	NL
	5/28/2009[2]	6010B	NL	0.65	51	<0.006	NL	NL	<0.005	9.9	NL	<1.0	NL	290	NL	NL
	3/24/2009[2]	6010B	NL	0.76	53	<0.006	NL	NL	<0.005	10	NL	<1.0	NL	280	NL	NL
	11/10/2008[2]	6010B	<0.02	0.42	65	<0.006	NL	NL	0.0065	9.7	NL	<1.0	<0.05	330	NL	NL
	9/30/2008[2]	6010B	NL	NL	70	NL	NL	NL	NL	13	NL	<1.0	NL	360	NL	NL
	4/11/2008[2]	6010B	NL	NL	110	NL	NL	NL	NL	19	NL	1.3	NL	380	NL	NL
NAPIS 3	11/2/2010	6010B	<0.02	0.081	42	<0.006	<0.006	0.025	<0.005	7	0.01	4.2	<0.05	990	**0.035**	NL
	9/15/2010	6010B	<0.02	0.066	39	<0.006	<0.006	0.021	<0.005	6.3	2.1E-03	3.9	<0.05	910	**0.032**	NL
	6/10/2010	6010B	<0.02	0.62	87	<0.006	NL	NL	<0.005	15	NL	<1.0	<0.05	260	NL	NL
	3/8/2010	6020A	**3.12E-03**	6.41E-02	41.5	2.71E-03	2.22E-03	<0.01	<0.001	6.8	1.38E-03	4.49	3.64E-03	835	2.96E-02	0.034
	11/23/2009[2]	6010B	NL	0.15	46	7.2E-03	NL	NL	<0.005	**8.8**	NL	5.4	NL	930	NL	NL
	8/11/2009[2]	6010B	NL	0.092	39	<0.01	NL	NL	<0.005	6.4	NL	4	NL	870	NL	NL
	6/15/2009[2]	6010B	NL	0.14	49	<0.01	NL	NL	<0.005	6.8	NL	4.2	NL	840	NL	NL
	3/24/2009[2]	6010B	NL	0.13	47	<0.006	NL	NL	<0.005	6.5	NL	3.9	NL	880	NL	NL
	11/10/2008[2]	6010B	<0.02	0.13	41	<0.006	NL	NL	<0.005	6.6	NL	4.4	<0.5	960	NL	NL
	9/30/2008[3]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/9/2008[2]	6010B	NL	NL	65	NL	NL	NL	N	7.8	NL	4.1	NL	910	NL	NL

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

			Parameters												
			Arsenic (mg/L)	Barium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**0.62**	**11**	**NE**	**NE**	**0.32**	**NE**	**0.078**	**NE**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**														
KA 3	11/2/2010	6010B	<0.1	0.62	81	<0.006	<0.006	0.32	<0.005	14	**1.4**	<1.0	<0.05	330	NL	NL
	9/15/2010	6010B	<0.02	0.47	68	<0.006	<0.006	0.56	<0.005	11	**1.2**	<1.0	<0.05	260	0.001	NL
	6/10/2010	6010B	<0.02	0.078	38	<0.006	NL	NL	<0.005	6.5	NL	4.1	<0.05	NL	NL	NL
	3/8/2010	6020A	**9.76E-03**	0.344	96.2	<0.001	4.28E-03	**1.55**	<0.001	15.6	**1.86**	1.2	1.02E-03	385	6.96E-03	0.0382
	11/23/2009[2]	6010B	NL	0.55	100	<0.006	NL	NL	<0.005	19	NL	2	NL	480	NL	NL
	8/11/2009[2]	6010B	NL	0.22	53	<0.01	NL	NL	<0.005	8.9	NL	0.73	NL	330	NL	NL
	5/28/2009[2]	6010B	NL	0.29	71	<0.006	NL	NL	<0.005	11	NL	<1.0	NL	330	NL	NL
	3/25/2009[2]	6010B	NL	0.22	67	<0.006	NL	NL	<0.005	10	NL	<1.0	NL	360	NL	NL
	11/10/2008	6010B	<0.02	0.2	65	<0.006	NL	NL	9.5E-03	11	NL	1.8	<0.5	570	NL	NL

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Primary Drinking Water Regulation (May 2009), Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES
2) 2009 Method 6010B Total Recoverable Metals Analysis run
3) Water level too shallow to collect samples.

8.8.4 NAPIS 1, NAPIS 2, NAPIS 3, KA-3
Volatile and Semi-Volatile Organics Analytical Result Summary

			Parameters													
			Acenaphthene (mg/L)	Aniline (mg/L)	Benz (a)anthracene (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Fluorene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	1,1-Dichloro ethane (mg/L)	Isopropyl benzene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.025	NE	NE	NE	NE
40 CFR 141.62 MCL (June 8, 2012)			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	2.4E-03	NE	NE	NE	NE
EPA RSL for Tap Water (April 2012)			0.4	0.012	2.9E-05	7.1E-05	0.22	9.7E-04	0.027	NE	1.4E-04	NE	1.5E-03	NE	0.78	NE	NE
Well ID	**DATE SAMPLED**	**METHOD**															
NAPIS 1	11/2/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	<0.01	<0.01	NA	NA	NA	NA	NA
	9/15/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	<0.1	<0.01	NA	NA	NA	NA	NA
	6/8/2010	8310	<0.0025	NL	NL	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.0006	NA	NA	NA	NA	NA
	3/8/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	<0.01	<0.01	NA	NA	NA	NA	NA
	11/23/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.006	NA	NA	NA	NA	NA
	8/11/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.006	NA	NA	NA	NA	NA
	5/28/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.006	NA	NA	NA	NA	NA
	3/24/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.006	NA	NA	NA	NA	NA
NAPIS 2	11/2/2010	8270C	0.01	<0.01	<0.01	<0.01	0.011	NL	<0.01	<0.01	<0.01	<0.01	NA	NA	NA	NA	NA
	9/15/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.05	NL	<0.01	<0.01	<0.01	<0.01	NA	NA	NA	NA	NA
	6/10/2010	8310	<0.0025	NL	<0.00007	NL	0.011	**0.033**	<0.002	NL	**0.089**	0.005	NA	NA	NA	NA	NA
	3/8/2010	8270C/8260B	<0.05	<0.05	<0.05	<0.05	<0.05	NL	<0.05	<0.05	**3.6E-03**	<0.05	**2.8E-03**	2.8E-03	1.4E-03	4.2E-03	0.002
	11/23/2009	8310	NL	NL	<0.00007	NL	0.009	<0.002	<0.002	NL	**0.046**	1.7E-03	NA	NA	NA	NA	NA
	8/11/2009	8310	NL	NL	<0.00007	NL	7.3E-03	<0.002	<0.002	NL	<0.002	3.7E-03	NA	NA	NA	NA	NA
	5/28/2009	8310	NL	NL	<0.00007	NL	<0.0008	**4.2E-03**	2.3E-03	NL	**0.03**	<0.006	NA	NA	NA	NA	NA
	3/24/2009	8310	NL	NL	<0.00014	NL	<0.0016	<0.004	<0.004	NL	<0.004	<0.00012	NA	NA	NA	NA	NA
	11/10/2008	8310	<0.005	NL	<0.00007	NL	9.9E-04	<0.002	<0.002	NL	<0.002	<0.006	NA	NA	NA	NA	NA
NAPIS 3	11/2/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	<0.01	<0.01	NA	NA	NA	NA	NA
	9/15/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	<0.01	<0.01	NA	NA	NA	NA	NA
	6/10/2010	8310	<0.005	NL	NL	NL	4.9E-03	**0.05**	<0.002	NL	**0.045**	4.5E-03	NA	NA	NA	NA	NA
	3/8/2010	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	<0.01	<0.01	NA	NA	NA	NA	NA
	11/23/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.006	NA	NA	NA	NA	NA
	8/31/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.006	NA	NA	NA	NA	NA
	6/15/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.006	NA	NA	NA	NA	NA
	3/25/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.006	NA	NA	NA	NA	NA
KA-3	11/2/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	**0.013**	<0.01	NA	NA	NA	NA	NA
	9/15/2010	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	**0.011**	<0.01	NA	NA	NA	NA	NA
	6/10/2010	8310	<0.005	NL	<0.00007	NL	8.0E-04	<0.002	<0.002	4.5E-03	<0.002	<0.0006	NA	NA	NA	NA	NA
	3/8/2010	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	<0.01	<0.01	NA	NA	NA	NA	NA
	11/23/2009	8310	NL	NL	<0.00007	NL	2.9E-03	**0.022**	<0.002	NL	**0.033**	2.5E-03	NA	NA	NA	NA	NA
	8/31/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.006	NA	NA	NA	NA	NA
	5/28/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	**0.047**	<0.006	NA	NA	NA	NA	NA
	3/25/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.0006	NA	NA	NA	NA	NA

DEFINITIONS
NE = Not establishes
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

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

NOTES

8.9 Boiler Water to EP-2 (BW to EP-2)
General Chemistry Analytical Result Summary

			Parameters								
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6.6 - 8.6[1]**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**4.0**	**NE**	**NE**	**1**	**10**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.62**	**NE**	**NE**	**1.6**	**25**	**3.1E-04**	**NE**	**NE**	**NE**
SAMPLE ID	**DATE SAMPLED**	**METHOD**									
BW to EP-2	11/16/2010	300.0	<0.2	**53000**	<5.0	<200	<200	<25	**1200**	NA	NA
	6/28/2010	300.0	0.27	71	<0.1	<0.1	<0.1	<0.5	500	7.89	1600
	4/20/2010	300.0	**0.64**	68	0.24	<0.1	0.31	<0.5	**1400**	NA	NA
	10/27/2009	300.0	0.39	37	1.3	0.12	0.12	<0.5	**630**	8.35	1900
	5/6/2009	300.0	0.9	45	0.24	<1.0	0.65	<0.5	**1500**	8.01	4200
	6/17/2008	300.0	1.3	6.7	NL	<0.1	<1.0	<0.5	**2600**	7.9	6500

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STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
1) 20 NMAC 6.2.2101 General Requirements
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES

8.9.1 Boiler Water to EP-2 (BW to EP-2)
Major Cations and Anions Analytical Result Summary

			Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
WQCC 20NMAC 6.2.3103			**NE**	**NE**	**NE**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**NE**	**NE**	**NE**	**NE**
SAMPLE ID	**DATE SAMPLED**	**METHOD**				
BW to EP-2	11/16/2010	6010B	1600	250	130	26000
	6/28/2010	6010B	1.7	<1.0	2.1	380
	4/20/2010	6010B	2.5	<1.0	15	970
	10/27/2009	6010B	0.8	<0.5	4.6	480
	5/6/2009	6010B	1.1	<0.5	4.9	1200
	6/17/2008	6010B	1.9	<0.5	15	1900

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
1) 20 NMAC 6.2.2101 General Requirements
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES

8.10 Evaporation Ponds (EP-1 thru EP-12B)
BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			**0.01**	**0.75**	**0.75**	**0.62**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**0.005**	**1.0**	**0.7**	**10**	**NE**
EPA RSL for Tap Water (April 2012)			**3.9E-04**	**0.86**	**1.3E-03**	**0.19**	**0.012**
SAMPLE ID	DATE SAMPLED	METHOD					
EP-1	11/16/2010[2]	8260B	<0.001	<0.001	<0.001	7.8E-03	<0.0015
	8/2/2010[1]	8260B	<0.001	7.7E-03	<0.001	<0.0015	<0.001
	4/20/2010[1]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/17/2009	8260B	<0.001	0.024	**5.2E-03**	0.044	<0.001
	12/2/2008	8260B	**8.3E-03**	0.089	**0.033**	**0.26**	<0.001
	9/19/2008	8260B	**3.3E-03**	5.8E-03	**2.6E-03**	0.02	<0.001
	6/17/2008	8260B	<0.001	5.6E-03	**1.6E-03**	0.012	<0.001
	3/11/2008	8260B	**0.19**	0.47	**8.7E-03**	**0.54**	5.9E-03
	11/29/2007	8260B	**0.064**	0.23	**0.048**	**0.31**	<0.001
EP-2	11/16/2010[2]	8260B	<0.001	0.003	**1.9E-03**	0.015	<0.0015
	8/2/2010[1]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	4/20/2010[1]	8260B	<0.001	1.3E-03	<0.001	4.3E-03	<0.001
	6/17/2009	8260B	<0.001	0.015	<0.001	0.037	<0.001
	12/2/2008	8260B	**1.8E-03**	0.02	**7.2E-03**	0.057	<0.001
	9/19/2008	8260B	<0.001	1.1E-03	<0.001	4.4E-03	<0.01
	6/17/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.01
	3/11/2008	8260B	**3.8E-03**	0.011	**2.1E-03**	0.014	<0.01
	11/29/2007	8260B	**0.021**	0.079	**0.02**	0.13	<0.01
EP-3	11/16/2010[2]	8260B	<0.001	1.2E-03	<0.001	5.7E-03	<0.0015
	8/2/2010[1]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	4/20/2010[1]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/17/2009	8260B	<0.001	<0.001	<0.001	1.7E-03	<0.001
	12/2/2008	8260B	**1.1E-03**	0.012	**4.3E-03**	0.034	<0.001
	9/19/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	6/17/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/11/2008	8260B	<0.001	1.9E-03	<0.001	0.004	<0.001
	11/29/2007	8260B	<0.01	0.025	<0.01	0.038	<0.01
EP-4	11/16/2010[2]	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015
	8/2/2010[1]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	4/20/2010[1]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/17/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/2/2008	8260B	<0.001	0.008	**2.9E-03**	0.022	<0.001
	9/19/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	6/17/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	3/11/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/29/2007	8260B	<0.01	0.011	<0.01	<0.015	<0.01
EP-5	11/16/2010[2]	8260B	<0.001	<0.001	<0.001	<0.003	<0.001
	8/2/2010[1]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	4/20/2010[1]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/17/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/2/2008	8260B	<0.001	2.6E-03	0.001	7.2E-03	<0.001
	9/19/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	6/17/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	3/11/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/29/2007	8260B	<0.01	<0.01	<0.01	<0.015	<0.01

8.10 Evaporation Ponds (EP-1 thru EP-12B)
BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (June 8, 2012)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (April 2012)			3.9E-04	0.86	1.3E-03	0.19	0.012
SAMPLE ID	DATE SAMPLED	METHOD					
EP-6	11/16/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/2/2010[1]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	4/20/2010[1]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/17/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/2/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/19/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	6/17/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	3/11/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/29/2007	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
EP-7	11/16/2010[2]	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015
	8/2/2010[1]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	4/20/2010[1]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/17/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/2/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/19/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	6/17/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	3/11/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/29/2007	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
EP-8	11/16/2010[2]	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015
	8/2/2010[1]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	4/20/2010[1]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/17/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/2/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/19/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	6/17/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	3/11/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/29/2007	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
EP-9a	11/16/2010[2]	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015
	4/20/2010[1]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
EP-11	11/16/2010[2]	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015
	4/20/2010[1]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
EP-12A	11/16/2010[2]	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015
	4/20/2010[1]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
EP-12B	11/16/2010[2]	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015
	4/20/2010[1]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants

8.10 Evaporation Ponds (EP-1 thru EP-12B)
BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (June 8, 2012)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (April 2012)			3.9E-04	0.86	1.3E-03	0.19	0.012
SAMPLE ID	DATE SAMPLED	METHOD					
EPA Regional Screening Level (RSL) Summary Table							

NOTES

1) Used the unapproved Facility Wide Ground Water Monitoring Plan (FWGWMP) sampling guidelines for the first quarter of 2010 which included the addition of evaporation ponds 9a, 11, 12A and 12B.

2) *Used approved FWGWMP sampling guidelines beginning in the third quarter 2010. (approved August 25, 2010).*

8.10.1 Evaporation Ponds (EP-1 thru EP-12B)
General Chemistry Analytical Result Summary

			Parameters								
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6.6 to 8.6[1]**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**4.0**	**NE**	**NE**	**1**	**10**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.62**	**NE**	**NE**	**1.6**	**25**	**3.1E-04**	**NE**	**NE**	**NE**
SAMPLE ID	**DATE SAMPLED**	**METHOD**									
EP-1	11/16/2010[3]	300.0	**350**	140	1.2	**4.8**	4.8	<2.5	**1000**	7.4	4300
	8/2/2010[2]	300.0	**99**	**310**	<2.0	<4.0	<4.0	<10	**870**	7.68	3700
	4/20/2010[2]	300.0	**340**	**330**	<5.0	<1.0	<1.0	<5.0	**1500**	8.36	5400
	6/17/2009	300.0	**86**	**820**	NL	<1.0	<1.0	<5.0	580	7.73	4400
	12/2/2008	300.0	**110**	**360**	NL	<1.0	<1.0	**7.2**	**780**	7.76	4400
	9/9/2008	300.0	**99**	150	NL	<1.0	<1.0	<5.0	**7700**	7.82	4500
	6/17/2008	300.0	**120**	120	NL	<1.0	<1.0	**15**	**1100**	7.57	4600
	3/11/2008	300.0	**560**	**540**	NL	<1.0	<1.0	<2.5	**980**	**3.81**	4900
EP-2	11/16/2010[3]	300.0	**41**	**3500**	1.8	<10	<10	<2.5	**970**	7.38	14000
	8/2/2010[2]	300.0	**43**	**1600**	<1.0	<4.0	<4.0	<2.5	**970**	7.91	6400
	4/20/2010[2]	300.0	**170**	**1100**	2.3	<2.0	<0.5	<2.5	**1200**	7.56	5800
	6/17/2009	300.0	**52**	**3500**	NL	<2.1	<0.6	<2.5	**1000**	8.13	13000
	12/2/2008	300.0	**37**	**1800**	NL	<2.2	<0.7	<2.5	**1000**	7.8	8500
	9/9/2008	300.0	**48**	**2800**	NL	<1.0	<1.0	<2.5	**960**	7.97	10000
	6/17/2008	300.0	**63**	**2900**	NL	<1.0	<1.0	<2.5	**1300**	7.9	11000
	3/11/2008	300.0	**63**	**2200**	NL	<1.0	<1.0	<2.5	**970**	6.81	8400
EP-3	11/16/2010[3]	300.0	**11**	**5100**	1.4	<200	<200	<2.5	**1000**	7.66	16000
	8/2/2010[2]	300.0	**41**	**2800**	1.2	<10	<10	<5.0	**1100**	7.76	9000
	4/20/2010[2]	300.0	**63**	**8400**	<10	<40	<40	<2.5	**1100**	8.11	32000
	6/17/2009	300.0	**48**	**3600**	NL	<4.0	<4.0	<2.5	**1100**	8.13	14000
	12/2/2008	300.0	**26**	**1800**	NL	<2.0	<0.5	<2.5	**980**	7.86	8500
	9/9/2008	300.0	**51**	**2800**	NL	<1.0	<1.0	<5.0	**1100**	7.94	10000
	6/17/2008	300.0	**44**	**3700**	NL	<1.0	<1.0	<2.5	**1400**	7.91	13000
	3/11/2008	300.0	**41**	**2700**	NL	<1.0	<1.0	<2.5	**1000**	7.86	9800
EP-4	11/16/2010[3]	300.0	**22**	**4500**	2	<20	<20	<2.5	**1100**	7.81	18000
	8/2/2010[2]	300.0	**35**	**2500**	1.3	<10	<10	<2.5	**1100**	7.89	8700
	4/20/2010[2]	300.0	**67**	**8000**	<2.0	<40	<40	<2.5	**1000**	8.05	26000
	6/17/2009	300.0	**46**	**3400**	NL	<4.0	<4.0	<2.5	**1200**	8.12	13000
	12/2/2008	300.0	**27**	**2000**	NL	<2.0	<0.5	<2.5	**1000**	7.89	9100
	9/9/2008	300.0	**49**	**2900**	NL	<1.0	<1.0	<5.0	**1100**	7.9	11000
	6/17/2008	300.0	**34**	**4500**	NL	<1.0	<1.0	<2.5	**1500**	7.94	15000
	3/11/2008	300.0	**32**	**2800**	NL	<1.0	<1.0	<2.5	**1000**	8.06	10000

8.10.1 Evaporation Ponds (EP-1 thru EP-12B)
General Chemistry Analytical Result Summary

			Parameters								
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6.6 to 8.6[1]**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**4.0**	**NE**	**NE**	**1**	**10**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.62**	**NE**	**NE**	**1.6**	**25**	**3.1E-04**	**NE**	**NE**	**NE**
SAMPLE ID	**DATE SAMPLED**	**METHOD**									
EP-5	11/16/2010[3]	300.0	**20**	**4200**	2.1	<20	<20	<2.5	**1200**	7.86	18000
	8/2/2010[2]	300.0	**39**	**4800**	2	<10	<10	<2.5	**1300**	7.97	20000
	4/20/2010[2]	300.0	**53**	**12000**	<10	<40	<40	<2.5	**1100**	8.04	40000
	6/17/2009	300.0	**32**	**4400**	NL	<4.0	<4.0	<2.5	**1400**	8.07	17000
	12/2/2008	300.0	**29**	**2900**	NL	<2.0	<0.5	<2.5	**1200**	7.82	14000
	9/9/2008	300.0	**33**	**3000**	NL	<1.0	<1.0	<5.0	**890**	7.93	10000
	6/17/2008	300.0	**26**	**5400**	NL	<1.0	<1.0	<2.5	**1800**	7.86	17000
	3/11/2008	300.0	**41**	**2900**	NL	<1.0	<1.0	<2.5	**1100**	7.82	10000
EP-6	11/16/2010[3]	300.0	**25**	**6300**	2.4	<20	<20	<2.5	**1500**	774	21000
	8/2/2010[2]	300.0	**21**	**7400**	2.1	<40	<40	<2.5	**1500**	8.33	27000
	4/20/2010[2]	300.0	**29**	**4000**	<10	<2.0	<2.0	<10	**1100**	7.66	8400
	6/17/2009	300.0	**18**	**5100**	NL	<4.0	<4.0	<10	**1800**	8.07	16000
	12/2/2008	300.0	**28**	**5500**	NL	<2.0	<0.5	<10	**7600**	7.7	19000
	9/9/2008	300.0	**26**	**4900**	NL	<4.0	<4.0	<5.0	**1900**	7.83	16000
	6/17/2008	300.0	**29**	**6600**	NL	<2.0	<0.5	<5.0	**2600**	7.64	25000
	3/11/2008	300.0	**35**	**4100**	NL	<4.0	<4.0	<5.0	**1600**	7.7	13000
EP-7	11/16/2010[3]	300.0	**35**	**35000**	20	<200	<200	<10	**8400**	7.85	84000
	8/2/2010[2]	300.0	**18**	**62000**	27	<200	<200	<10	**11000**	7.41	180000
	4/20/2010[2]	300.0	**16**	**27000**	54	<200	<50	<10	**6900**	7.31	150000
	6/17/2009	300.0	**20**	**39000**	NL	<10	<10	<10	**10000**	7.59	130000
	12/2/2008	300.0	**35**	**42000**	NL	<40	<40	<10	**8300**	7.55	140000
	9/9/2008	300.0	**25**	**38000**	NL	<4.0	<4.0	<5.0	**8500**	7.52	110000
	6/17/2008	300.0	**29**	**64000**	NL	<2.0	<0.5	<5.0	**15000**	7.34	180000
	3/11/2008	300.0	**22**	**22000**	NL	<4.0	<4.0	<5.0	**5600**	7.61	68000
EP-8	11/16/2010[3]	300.0	**44**	**81000**	57	<200	<200	<10	**12000**	7.14	190000
	8/2/2010[2]	300.0	**43**	**110000**	78	<100	<100	<10	**22000**	**6.21**	300000
	4/20/2010[2]	300.0	**46**	**49000**	54	<200	<200	<10	**6900**	7.31	150000
	6/17/2009	300.0	**57**	**180000**	NL	<10	<10	<10	**23000**	6.73	310000
	12/2/2008	300.0	**31**	**46000**	NL	<40	<40	<10	**8600**	7.39	170000
	9/9/2008	300.0	**26**	**17000**	NL	<20	<20	<5.0	**3400**	7.75	51000
	6/17/2008	300.0	**94**	**160000**	NL	<10	<10	<5.0	**20000**	**6.28**	420000
	3/11/2008	300.0	**25**	**3000**	NL	<40	<40	<5.0	**6100**	7.47	94000

8.10.1 Evaporation Ponds (EP-1 thru EP-12B)
General Chemistry Analytical Result Summary

			Parameters								
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6.6 to 8.6[1]**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**4.0**	**NE**	**NE**	**1**	**10**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.62**	**NE**	**NE**	**1.6**	**25**	**3.1E-04**	**NE**	**NE**	**NE**
SAMPLE ID	**DATE SAMPLED**	**METHOD**									
EP-9a	11/16/2010[3]	300.0	**21**	**76000**	32	<200	<200	<10	**8700**	7.31	200000
	4/20/2010[2]	300.0	**20**	**38000**	14	<200	<200	<10	**5000**	7.58	120000
EP-11	11/16/2010[3]	300.0	**28**	**14000**	5.9	<40	<40	<5.0	**3300**	7.86	47000
	4/20/2010[2]	300.0	**18**	**17000**	6.9	<100	<100	<10	**4400**	7.73	62000
EP-12A	11/16/2010[3]	300.0	**21**	**11000**	4.5	<40	<40	<10	**3100**	8.07	39000
	4/20/2010[2]	300.0	**29**	**6400**	<20	<20	<20	<25	**1300**	7.89	20000
EP-12B	11/16/2010[3]	300.0	**22**	**6100**	3	<20	<20	<5.0	**1700**	7.74	22000
	4/20/2010[2]	300.0	**80**	**5000**	<1.0	<5.0	<5.0	<25	**950**	8.06	9400

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
1) NMAC 20.6.2.2101A General Requirements
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES
2) Used the unapproved 2010 Facility Wide Ground Water Monitoring Plan (FWGWMP) sampling guidelines for the first quarter of 2010 which included the addition of evaporation ponds 9a, 11, 12A and 12B.
3) *Used approved 2010 FWGWMP sampling guidelines beginning in the third quarter 2010. (approved August 25, 2010).*

8.10.2 Evaporation Ponds (EP-1 thru EP-12B)
BOD/COD, and E-Coli Analytical Result Summary

			Parameters			
			BOD (mg/L)	COD (mg/L)	E-Coli (CFU/100ml)	Total Coliform (CFU/100ml)
WQCC 20NMAC 6.2.3103			<30[1]	<125[1]	< 500 organisms per 100 ml	
40 CFR 141.62 MCL (June 8, 2012)			NE	NE	NE	NE
EPA RSL for Tap Water (April 2012)			NE	NE	MCL[6]	
SAMPLE ID	DATE SAMPLED	METHOD				
EP-1	11/17/2010	SM9223B/3014	1400	3200		NL
	8/2-3/2010	SM5210B/E410.4/3014	290	346	>2419.6	NL
	4/21/2010[2]	SM5210B/E410.4/3014	1080	2210	>2419.6	>2419.6
	6/17/2009	SM5210B/E410.4/3014	179	344	Present	Present
	12/2/2008	SM5210B/E410.4/3014	ND	ND	>60000	NL
	9/9/2008	SM5210B/E410.4/3014	299	3000	58	NL
	6/17/2008	SM5210B/E410.4/3014	327	1230	ND	ND
	3/11/2008	SM5210B/E410.4/3014	556	965	Absent	NL
EP-2	11/17/2010	SM9223B/3014	550	1020	1553.1	NL
	8/2-3/2010	SM5210B/E410.4/3014	64	172	>2419.6	NL
	4/21/2010	SM5210B/E410.4/3014	1100	2060	>2419.6	>2419.6
	6/17/2009	SM5210B/E410.4/3014	83.6	192	Present	Present
	12/2/2008	SM5210B/E410.4/3014	ND	ND	>6000	NL
	9/9/2008	SM5210B/E410.4/3014	122	2500	300	NL
	6/17/2008	SM5210B/E410.4/3014	110	790	ND	ND
	3/11/2008	SM5210B/E410.4/3014	0.71	871	Absent	NL
EP-3	11/17/2010	SM9223B/3014	120	560	40.8	NL
	8/2-3/2010	SM5210B/E410.4/3014	36	238	>2419.6	NL
	4/21/2010[2]	SM5210B/E410.4/3014	200	771	100.6	>2419.6
	6/17/2009	SM5210B/E410.4/3014	69.2	204	Present	Present
	12/2/2008	SM5210B/E410.4/3014	ND	ND	>6000	NL
	9/9/2008	SM5210B/E410.4/3014	73	950	300	NL
	6/17/2008	SM5210B/E410.4/3014	9639	691	ND	ND
	3/11/2008	SM5210B/E410.4/3014	323	871	Present	NL
EP-4	11/17/2020	SM9223B/3014	140	440	12	NL
	8/2-3/2010	SM5210B/E410.4/3014	35	204	>2419.6	NL
	4/21/2010[2]	SM5210B/E410.4/3014	281	683	<1.0	>2419.6
	6/17/2009	SM5210B/E410.4/3014	71.1	222	Present	Present
	12/2/2008	SM5210B/E410.4/3014	ND	ND	2900	NL
	9/9/2008	SM5210B/E410.4/3014	68	850	54.5	NL
	6/17/2008	SM5210B/E410.4/3014	103	110	ND	ND
	3/11/2008	SM5210B/E410.4/3014	275	663	Present	NL
EP-5	11/17/2010	SM9223B/3014	76	320	4.1	NL
	8/2-3/2010	SM5210B/E410.4/3014	40	208	1960.8	NL
	4/21/2010[2]	SM5210B/E410.4/3014	123	782	2.0	>2419.6
	6/17/2009	SM5210B/E410.4/3014	41.9	210	Absent	Present
	12/2/2008	SM5210B/E410.4/3014	ND	ND	630	NL
	9/9/2008	SM5210B/E410.4/3014	59	667	54.5	NL
	6/17/2008	SM5210B/E410.4/3014	<128	575	ND	ND
	3/11/2008	SM5210B/E410.4/3014	178	506	Present	
EP-6	11/17/2010	SM9223B/3014	<1200	168	8.6	NL
	8/2-3/2010	SM5210B/E410.4	15	172	1892	NL
	4/21/2010[2]	SM5210B/E410.5	54.8	290	1.0	>2419.6
	6/17/2009	SM5210B/E410.4	<60	126	Absent	Present
	12/2/2008	SM5210B/E410.4	ND	ND	17.3	NL

8.10.2 Evaporation Ponds (EP-1 thru EP-12B)
BOD/COD, and E-Coli Analytical Result Summary

			Parameters			
			BOD (mg/L)	COD (mg/L)	E-Coli (CFU/100ml)	Total Coliform (CFU/100ml)
WQCC 20NMAC 6.2.3103			<30[1]	<125[1]	< 500 organisms per 100 ml	
40 CFR 141.62 MCL (June 8, 2012)			NE	NE	NE	NE
EPA RSL for Tap Water (April 2012)			NE	NE	MCL[6]	
SAMPLE ID	DATE SAMPLED	METHOD				
EP-6	9/9/2008	SM5210B/E410.4	**47**	**949**	90.9	NL
	6/17/2008	SM5210B/E410.4	<128	**723**	ND	ND
	3/11/2008	SM5210B/E410.4	**126**	**847**	**Present**	NL
EP-7	11/17/2010	SM9223B/3014	**380**	**920**	<1.0	NL
	8/2-3/2010	SM5210B/E410.4/3014	5	**870**	<1.0	NL
	4/21/2010[2]	SM5210B/E410.4/3014	<60.0	**1010**	<1.0	96
	6/17/2009	SM5210B/E410.4/3014	<60	**720**	Absent	**Present**
	12/2/2008	SM5210B/E410.4/3014	ND	ND	<1.0	NL
	9/9/2008	SM5210B/E410.4/3014	**47.8**	**3330**	24.9	NL
	6/17/2008	SM5210B/E410.4/3014	17.7	**4340**	ND	ND
	3/11/2008	SM5210B/E410.4/3014	15.7	**2118**	Absent	NL
EP-8	11/17/2010	SM9223B/3014	**400**	**1720**	<1.0	NL
	8/2-3/2010	SM5210B/E410.4/3014	5	**2520**	<1.0	<1
	4/21/2010[2]	SM5210B/E410.4/3014	14.3	**776**	<1.0	2
	6/17/2009	SM5210B/E410.4/3014	<60.0	**2160**	Absent	**Present**
	12/2/2008	SM5210B/E410.4/3014	ND	ND	<1.0	NL
	9/9/2008	SM5210B/E410.4/3014	<16.0	**3080**	102	NL
	6/17/2008	SM5210B/E410.4/3014	8.2	**16100**	ND	ND
	3/11/2008	SM5210B/E410.4/3014	17.4	**1770**	Absent	NL
EP-9a	11/17/2010	SM9223B/3014	**350**	**1240**	<1.0	NL
	4/21/2010[2]	SM5210B/E410.4/3014	<60.0	**760**	<1.0	85.5
EP-11	11/17/2010	SM9223B/3014	**350**	**460**	4.1	NL
	4/21/2010	SM5210B/E410.4/3014	<60.0	**492**	<1.0	71.9
EP-12A	11/17/2010	SM9223B/3014	**330**	**300**	64.4	NL
	4/21/2010	SM5210B/E410.4/3014	**87.3**	**675**	47.6	**>2419.6**
EP-12B	11/17/2010	SM9223B/3014	**350**	**280**	12	NL
	4/21/2010[2]	SM5210B/E410.4/3014	**342**	**1070**	**1540.2**	**>2419.6**

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
ND = No data available
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/L TDS Concentrations or Less.
[1] 20 NMAC 6.2.2101 General Requirements
EPA Regional Screening Level (RSL) Summary Table
[6] Fecal coliform positive or e-coli positive triggers repeat samples if any repeat sample is total coliform positive. A routine sample that is total coliform positive and fecal coliform negative or e-coli negative triggers repeat samples if any repeat sample is fecal coliform positive or e-coli positive.

NOTES
2) Used the unapproved 2010 Facility Wide Ground Water Monitoring Plan (FWGWMP) sampling guidelines for the first quarter of 2010 which included the addition of evaporation ponds 9a, 11, 12A and 12B.

8.10.3 Total Metals Analytical Result Summary
Evaporation Ponds EP-1 thru EP-12B

			Parameters														
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**6.9E-03**	**NE**	**NE**	**0.62**	**11**	**NE**	**NE**	**0.32**	**NE**	**0.078**	**NE**	**6.3E-04**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**																
EP-1	11/16/2010	6010B	<0.1	<0.1	<0.01	NL	**0.39**	<0.03	**14**	<0.025	NL	0.19	NL	<0.25	NL	**6.7E-04**	<0.02	0.89
	8/2/2010	6010B	<0.5	<0.5	<0.05	NL	<0.15	<0.15	**15**	<0.13	NL	**0.43**	NL	<1.3	NL	**1.6E-03**	NL	1.3
	4/20/2010[2]	6010B	<0.1	0.27	<0.01	45	<0.03	<0.03	**36**	<0.025	12	**0.24**	72	<0.25	1400	<0.0002	5.81E-03	0.49
	6/17/2009	6010B	**0.008**	0.01	<0.01	43.5	<0.05	<0.01	**5.6**	<0.05	12.5	**0.2**	55.8	0.015	830	<0.001	<0.001	0.28
	12/2/2008	6010B	<0.02	0.098	NL	43	<0.01	<0.02	**7.6**	<0.005	16	**0.27**	92	0.041	590	<0.0002	<0.001	0.36
	9/9/2008	6010B	<0.02	0.076	<0.002	45	<0.006	<0.006	NL	<0.005	14	**0.22**	62	<0.05	460	<0.0002	<0.001	0.12
EP-2	11/16/2010	6010B	<0.1	<0.11	<0.01	NL	**0.051**	<0.03	**7.9**	<0.025	NL	**0.41**	NL	<0.25	NL	4.5E-04	<0.001	0.59
	8/2/2010	6010B	<0.2	<0.2	<0.02	NL	<0.06	<0.06	**2.4**	<0.05	NL	**0.23**	NL	<0.5	NL	<0.0002	<0.001	<0.5
	4/20/2010[2]	6010B	<0.1	<0.1	<0.01	91	<0.03	<0.03	**17**	<0.025	26	**0.31**	93	<0.25	1400	**7.70E-04**	8.30E-03	<0.25
	6/17/2009	6010B	**0.011**	<0.1	<0.01	336	<0.05	<0.01	**2.33**	<0.05	75.3	0.17	63.2	0.011	2300	<0.001	0.002	0.08
	12/2/2008	6010B	<0.02	0.061	NL	170	<0.01	<0.02	**2.7**	<0.005	56	0.19	75	0.022	1500	<0.0002	<0.001	0.089
	9/9/2008	6010B	<0.02	0.1	NL	340	<0.006	<0.006	NL	<0.005	84	**0.21**	52	<0.25	1900	**0.1**	2.07E-03	0.089
EP-3	11/16/2010	6010B	<0.1	<0.1	<0.01	NL	<0.03	<0.03	0.65	<0.025	NL	0.19	NL	<0.25	NL	<0.0002	<0.001	<0.1
	8/2/2010	6010B	<0.2	<0.2	<0.02	NL	<0.06	<0.06	**3.0**	<0.05	NL	**0.38**	NL	<0.5	NL	<0.0002	<0.001	<0.5
	4/20/2010[2]	6010B	<0.1	<0.1	<0.01	600	<0.03	<0.03	**1.6**	<0.025	140	**0.39**	170	<0.25	5000	<0.0002	3.26E-03	<0.25
	6/17/2009	6010B	**0.013**	<0.1	<0.01	377	<0.05	<0.01	**1.75**	<0.05	89.5	**0.22**	79.9	0.013	2600	<0.001	0.003	0.07
	12/2/2008	6010B	**0.024**	0.052	NL	140	<0.01	<0.02	**1.8**	<0.005	52	**0.2**	78	0.026	1700	<0.0002	<0.001	<0.03
	9/9/2008	6010B	<0.02	0.11	NL	340	<0.006	<0.006	NL	<0.005	87	**0.21**	54	<0.25	2000	<0.0002	2.37E-03	0.47
EP-4	11/16/2010	6010B	<0.1	<0.1	<0.01	NL	<0.03	<0.03	0.5	<0.025	NL	0.17	NL	<0.25	NL	<0.0002	<0.001	<0.1
	8/2/2010	6010B	<0.2	<0.2	<0.02	NL	<0.06	<0.06	0.76	<0.05	NL	**0.31**	NL	<0.5	NL	<0.0002	<.001	<0.5
	4/20/2010[2]	6010B	<0.1	0.086	<0.002	590	<0.006	<0.006	**2.0**	<0.005	140	**0.37**	180	<0.05	5100	<0.0002	3.27E-03	<0.05
	6/17/2009	6010B	**0.012**	<0.1	<0.01	357	<0.05	<0.01	**1.35**	<0.05	85.2	**0.22**	82.5	0.013	2440	<0.001	0.002	0.08
	12/2/2008	6010B	<0.02	0.057	NL	160	<0.01	<0.02	**1.4**	<0.005	59	**0.2**	81	0.025	1700	<0.0002	<0.001	<0.1
	9/9/2008	6010B	<0.02	0.13	NL	320	<0.006	<0.006	NL	<0.005	87	**0.23**	54	<0.25	2000	<0.0002	1.87E-03	0.021
EP-5	11/16/2010	6010B	<0.1	<0.1	<0.02	NL	0.043	<0.03	0.68	<0.025	NL	**0.22**	NL	<0.25	NL	<0.0002	<0.001	<0.1
	8/2/2010	6010B	<0.2	<0.2	<0.02	NL	<0.06	<0.06	<0.5	<0.05	NL	0.069	NL	<0.5	NL	<0.002	<0.001	<0.5
	4/20/2010[2]	6010B	<0.1	0.11	<0.01	790	<0.03	<0.03	**1.1**	<0.025	180	**0.45**	180	<0.25	6500	<0.0002	5.71E-03	<0.05
	6/17/2009	6010B	**0.013**	<0.1	<0.01	460	<0.05	<0.01	0.5	<0.05	116	**0.27**	92.9	0.009	2990	<0.001	0.002	0.02
	12/2/2008	6010B	<0.02	0.084	NL	270	<0.01	<0.02	0.9	<0.005	82	**0.26**	**88**	0.024	2200	<0.0002	0.001	<0.03
	9/9/2008	6010B	<0.02	0.14	<0.002	220	<0.006	<0.006	NL	<0.005	82	0.17	70	<0.25	2000	<0.0002	1.42E-03	<0.02
EP-6	11/16/2010	6010B	<0.1	0.14	<0.01	NL	0.04	<0.03	<0.03	<0.025	NL	**0.33**	NL	<0.25	NL	<0.0002	0.001	<0.1
	8/2/2010	6010B	<0.2	<0.2	<0.02	NL	<0.06	<0.06	<0.5	<0.05	NL	**4.8**	NL	<0.5	NL	<0.0002	<0.001	<0.5
	4/20/2010[2]	6010B	<0.02	0.064	<0.002	310	<0.006	<0.006	0.67	<0.005	0.89	**0.4**	71	<0.05	2800	<0.0002	1.85E-03	<0.05
	6/17/2009	6010B	**0.015**	<0.1	<0.01	450	<0.05	<0.01	0.2	<0.05	131	**0.31**	94.3	0.005	3380	<0.001	0.002	<0.01
	12/2/2008	6010B	**0.024**	0.12	NL	370	<0.01	<0.02	0.3	<0.005	130	**0.48**	160	<0.02	3700	<0.0002	0.002	<0.03
	9/9/2008	6010B	<0.02	0.11	<0.002	330	<0.006	<0.006	NL	<0.005	130	**0.46**	130	<0.25	3300	<0.0002	1.25E-03	<0.02

8.10.3 Total Metals Analytical Result Summary
Evaporation Ponds EP-1 thru EP-12B

			Parameters														
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**6.9E-03**	**NE**	**NE**	**0.62**	**11**	**NE**	**NE**	**0.32**	**NE**	**0.078**	**NE**	**6.3E-04**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**																
EP-7	1/16/2010	6010B	<0.2	<0.2	<0.02	NL	<0.06	<0.06	0.83	<0.05	NL	**3.3**	NL	<0.5	NL	<0.0002	0.003	<0.2
	8/2/2010	6010B	<1.0	<1.0	<0.1	NL	<0.3	<0.3	<2.5	<0.25	NL	**3.9**	NL	<2.5	NL	<0.0002	NL	<2.5
	4/20/2010[2]	6010B	**0.1**	<0.2	<0.01	930	<0.03	<0.03	0.28	<0.025	620	**2.7**	660	<0.25	15000	<0.0002	2.25E-03	<0.25
	6/17/2009	6010B	**0.055**	0.1	<0.01	1300	<0.05	0.03	0.14	0.08	944	**4.44**	401	0.033	27300	<0.001	0.003	<0.02
	12/2/2008	6010B	<0.01	0.14	<0.02	820	<0.05	<0.1	<0.5	<0.25	1000	**1.8**	1500	<0.1	28000	<0.0002	0.002	<0.15
	9/9/2008	6010B	<0.20	0.11	<0.02	730	<0.006	<0.006	NL	<0.05	960	**5.8**	1100	<0.5	28000	<0.0002	1.03E-03	<0.02
EP-8	11/16/2010	6010B	<0.4	<0.4	<0.04	NL	<0.12	<0.12	<1.0	<0.025	NL	<1.0	NL	<1.0	NL	<0.0002	0.003	<0.4
	8/2/2010	6010B	<1.0	<1.0	<0.1	NL	<0.3	<0.3	<2.5	<0.25	NL	**24**	NL	<2.5	NL	<0.0002	NL	<2.5
	4/20/2010[2]	6010B	**0.17**	0.13	<0.01	680	<0.03	<0.03	0.62	<0.025	1500	**9.6**	2000	<0.25	27000	<0.0002	2.27E-03	<0.25
	6/17/2009	6010B	**0.384**	0.2	<0.01	1120	<0.05	0.27	0.3	<0.05	4050	**28**	2130	**0.224**	67500	<0.001	0.004	0.13
	12/2/2008	6010B	**0.13**	0.15	<0.01	830	<0.05	<0.1	<0.5	<0.025	1400	**5.5**	2300	<0.1	33000	<0.001	0.002	<0.15
	9/9/2008	6010B	<0.1	0.12	<0.01	530	<0.03	<0.03	NL	<0.025	43	**2.4**	800	<0.25	9500	<0.001	1.48E-03	<0.01
EP-9a	11/16/2010	6010B	<0.4	<0.4	<0.04	NL	<0.12	<0.12	<1.0	<0.1	NL	**6.7**	NL	<1.0	NL	<0.0002	0.003	<0.4
	4/20/2010[2]	6010B	<0.1	0.14	<0.01	890	<0.03	<0.03	0.62	<0.025	790	**29**	870	<0.25	24000	<0.0002	2.20E-03	<0.25
EP-11	11/16/2010	6010B	<0.1	0.14	<0.01	NL	**0.35**	<0.03	**1.3**	<0.025	NL	**0.88**	NL	<0.25	NL	<0.0002	0.002	<0.1
	4/20/2010[2]	6010B	<0.1	<0.1	<0.01	710	<0.03	<0.03	0.42	<0.025	420	**1.6**	360	<0.25	9900	<0.0002	1.97E-03	<0.25
EP-12A	11/16/2010	6010B	<0.1	<0.1	<0.01	NL	<0.03	<0.03	**1.1**	<0.025	NL	**0.4**	NL	<0.25	NL	<0.0002	0.002	<0.1
	4/20/2010[2]	6010B	<0.1	<0.1	<0.01	350	<0.03	<0.03	0.92	<0.025	110	**0.28**	130	<0.25	3900	<0.0002	1.75E-03	<0.25
EP-12B	11/16/2010	6010B	<0.1	<0.1	<0.01	NL	<0.03	<0.03	0.84	<0.025	NL	0.15	NL	<0.25	NL	<0.0002	<0.001	<0.25
	4/20/2010[2]	6010B	<0.1	<0.1	<0.01	320	<0.03	<0.03	**4.2**	<0.025	83	**0.35**	150	<0.25	3100	<0.0002	2.91E-03	<0.25

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis

Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Secondary Drinking Water Regulation (May 2009); Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES
2) Used the unapproved 2010 Facility Wide Ground Water Monitoring Plan (FWGWMP) sampling guidelines for the first quarter of 2010 which included the addition of evaporation ponds 9a, 11, 12A and 12B.

8.10.4 Evaporation Ponds (EP-1 thru 12B)
Dissolved Metals Analytical Result Summary

			Parameters													
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silver (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**NE**	**0.05**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**0.05**	**NE**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**6.9E-03**	**NE**	**NE**	**0.62**	**11**	**NE**	**0.32**	**NE**	**0.078**	**0.071**	**NE**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**															
EP-1	11/16/2010	6010B	<0.1	<0.1	<0.1	12	<0.03	<0.03	**4.3**	<0.025	0.15	72	<0.25	<0.025	580	<0.001	<0.25
	8/2/2010	6010B	<0.02	0.072	<0.002	NL	0.013	<0.006	**2.5**	<0.005	**0.36**	NL	<0.05	<0.025	NL	<0.001	0.096
	4/20/2010[2]	6010B	<0.02	0.085	<0.002	31	0.019	9.1E-03	**29**	<0.005	**0.24**	70	**0.066**	<0.005	1500	4.42E-03	0.28
EP-2	11/16/2010	6010B	<0.1	<0.1	<0.01	150	<0.03	<0.03	0.71	<0.025	0.18	65	<0.25	<0.025	2100	<0.001	<0.25
	8/2/2010	6010B	<0.1	<0.1	<0.01	NL	<0.03	<0.03	**2.2**	<0.025	**0.27**	NL	<0.25	<0.025	NL	<0.001	<0.25
	4/20/2010[2]	6010B	<0.02	0.057	<0.002	130	0.013	<0.006	**9.7**	<0.005	**0.34**	100	<0.25	<0.005	1700	0.0046	0.12
EP-3	11/16/2010	6010B	<0.1	<0.1	<0.01	160	<0.03	<0.03	0.24	<0.025	0.15	71	<0.25	<0.025	2300	<0.001	<0.25
	8/2/2010	6010B	<0.1	0.12	<0.002	NL	9.3E-03	<0.006	**1.8**	<0.005	**0.37**	NL	<0.05	<0.005	NL	<0.001	<0.05
	4/20/2010[2]	6010B	<0.1	<0.1	<0.01	590	<0.03	<0.03	0.88	<0.025	**0.42**	170	<0.25	<0.005	5100	2.58E-03	<0.25
EP-4	11/16/2010	6010B	<0.1	<0.1	<0.01	210	<0.03	<0.03	0.22	<0.025	0.14	85	<0.25	<0.025	2600	<0.001	<0.25
	8/2/2010	6010B	<0.1	<0.1	<0.01	NL	<0.03	<0.03	1.0	<0.025	**0.33**	NL	<0.25	<0.025	NL	0.002	<0.25
	4/20/2010[2]	6010B	<0.1	<0.1	<0.01	590	<0.03	<0.03	0.95	<0.025	**0.41**	170	<0.25	<0.005	4800	2.92E-03	<0.25
EP-5	11/16/2010	6010B	<0.1	<0.1	<0.01	210	0.031	<0.03	0.37	<0.025	0.19	91	<0.25	<0.025	2600	<0.001	<0.25
	8/2/2010	6010B	<0.1	<0.1	<0.01	NL	<0.03	<0.03	0.42	<0.025	**0.3**	NL	<0.25	<0.025	NL	0.003	<0.25
	4/20/2010[2]	6010B	<0.1	0.12	<0.01	780	<0.03	<0.03	0.71	<0.025	**0.49**	180	<0.25	<0.005	6400	2.71E-03	<0.25
EP-6	11/16/2010	6010B	<0.1	0.12	<0.01	240	<0.03	<0.03	0.18	<0.025	**0.3**	110	<0.25	<0.025	3400	0.001	<0.25
	8/2/2010	6010B	<0.1	<0.1	<0.01	NL	<0.03	<0.03	0.033	<0.025	0.045	NL	<0.25	<0.025	NL	0.002	<0.25
	4/20/2010[2]	6010B	<0.02	0.068	<0.002	320	<0.006	<0.006	0.38	<0.005	**0.43**	72	<0.05	<0.005	2700	1.69E-03	0.5
EP-7	11/16/2010	6010B	<0.2	<0.2	<0.02	870	<0.06	<0.06	0.19	<0.05	**2.3**	790	<0.5	<0.05	19000	0.003	<0 .5
	8/2/2010	6010B	<0.4	<0.4	<0.04	NL	<0.12	<0.12	<0.2	<0.1	**3.4**	NL	<1.0	<0.1	NL	0.003	<1.0
	4/20/2010[2]	6010B	<0.1	<0.1	<0.01	880	<0.03	<0.03	<0.1	<0.025	**2.5**	640	<0.25	<0.025	15000	2.28E-03	<0.25
EP-8	11/16/2010	6010B	<0.4	<0.4	<0.04	760	<0.12	<0.12	0.11	<0.1	**9.1**	2900	<1.0	<0.1	33000	0.003	1.0
	8/2/2010	6010B	**0.77**	<0.4	<0.04	NL	<0.12	<0.12	<0.2	<0.1	**22**	NL	<1.0	<0.1	NL	0.001	1.0
	4/20/2010[2]	6010B	<0.2	<0.2	<0.02	720	<0.06	<0.06	0.26	<0.05	**10**	2100	<0.05	<0.05	27000	1.66E-03	<0.5
EP-9a	11/16/2010	6010B	<0.4	<0.4	<0.04	1400	<0.12	<0.12	<0.4	<0.1	**5.3**	1400	<1.0	<0.1	37000	0.003	<1.0
	4/20/2010[2]	6010B	<0.2	0.14	<0.01	860	<0.03	<0.03	0.17	<0.025	**2.6**	840	<0.25	<0.025	23000	2.21E-03	<0.25
EP-11	11/16/2010	6010B	<0.1	0.12	<0.01	410	<0.03	<0.03	0.48	<0.025	**0.64**	280	<0.25	<0.025	7400	0.002	<0.25
	4/20/2010[2]	6010B	<0.1	<0.1	<0.01	690	<0.03	<0.03	0.15	<0.025	**1.6**	360	<0.25	<0.025	9900	2.11E-03	<0.25
EP-12A	11/16/2010	6010B	<0.1	<0.1	<0.01	320	<0.03	<0.03	0.4	<0.025	**0.27**	210	<0.25	<0.025	6200	0.002	<0.25
	4/20/2010[2]	6010B	<0.2	0.074	<0.002	370	<0.006	<0.006	0.55	<0.005	**0.28**	130	<0.05	<0.005	3600	1.66E-03	<0.05
EP-12B	11/16/2010	6010B	<0.1	<0.1	<0.01	180	<0.03	<0.03	0.84	<0.025	0.15	110	<0.25	<0.025	3400	<0.001	<0.25
	4/20/2010[2]	6010B	<0.2	0.064	<0.002	330	<0.006	<0.006	**1.8**	<0.005	**0.35**	150	<0.05	<0.005	3100	2.97E-03	<0.05

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis

Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Secondary Drinking Water Regulation (May 2009); Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES:
2) Used the unapproved 2010 Facility Wide Ground Water Monitoring Plan (FWGWMP) sampling guidelines for the first quarter of 2010 which included the addition of evaporation ponds 9a, 11, 12A and 12B.

8.10.5 Evaporation Ponds (EP-1 thru EP-12B)
Volatile Organics Analytical Result Summary

			Parameters										
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	Acetone (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	2-Butanone (mg/L)	Carbon disulfide (mg/L)	Chloroform (mg/L)	Chloromethane (mg/L)	n-Butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			**NE**	**NE**	**0.03**	**NE**	**NE**	**NE**	**NE**	**NE**	**0.01**	**NE**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.015**	**0.087**	**1.4E-04**	**1.2E+01**	**9.7E-04**	**0.027**	**NE**	**0.72**	**1.9E-04**	**0.19**	**0.78**
SAMPLE ID	**DATE SAMPLED**	**METHOD**											
EP-1	8/2/2010	8260B	**0.016**	<0.005	**0.016**	0.73	**0.044**	**0.07**	0.086	<0.05	<0.005	<0.005	<0.005
	4/20/2010	8260B	0.0055	0.0018	**0.011**	1.7	**0.027**	**0.045**	0.1	<0.01	<0.01	<0.01	<0.01
	6/17/2009	8260B	**0.023**	0.0074	**0.012**	0.46	**0.054**	**0.054**	<0.05	<0.05	<0.005	<0.005	<0.005
	12/2/2008	8260B	**0.13**	0.046	**0.074**	1.0	**0.14**	**0.22**	0.094	<0.05	<0.005	<0.005	0.021
	9/9/2008	8260B	**0.027**	0.0095	**0.033**	1.6	**0.062**	**0.088**	0.15	0.039	<0.001	<0.001	8.7E-03
	6/17/2008	8260B	**0.017**	0.0044	**0.031**	1.6	**0.072**	**0.3**	0.19	0.011	<0.005	<0.005	5.5E-03
	3/11/2008	8260B	**0.038**	**0.11**	**0.2**	1.4	**0.28**	**0.39**	0.16	<0.05	<0.005	<0.005	0.046
EP-2	8/2/2010	8260B	<0.005	<0.0058	<0.01	0.27	<0.02	<0.02	<0.05	<0.05	<0.005	<0.005	<0.005
	4/20/2010	8260B	0.0046	0.0014	**0.01**	0.15	**0.032**	**0.052**	<0.01	0.021	<0.01	<0.01	<0.01
	6/17/2009	8260B	**0.026**	0.0085	**0.012**	0.56	**0.078**	**0.078**	0.05	0.057	<0.005	<0.005	5.4E-03
	12/2/2008	8260B	**0.028**	0.0097	**0.016**	0.65	**0.037**	**0.053**	0.072	0.026	<0.005	<0.005	4.1E-03
	9/9/2008	8260B	0.0064	0.0021	**6.4E-03**	0.36	**0.016**	0.023	0.035	0.025	<0.001	<0.001	2.5E-03
	6/17/2008	8260B	0.015	<0.01	**0.014**	0.64	**0.033**	**0.05**	0.08	<0.001	<0.001	<0.001	0.009
	3/11/2008	8260B	0.012	0.0032	**0.02**	1.7	**0.034**	**0.049**	0.12	0.018	<0.001	<0.001	1.4E-03
EP-3	8/2/2010	8260B	<0.005	<0.005	<0.1	0.22	<0.02	<0.02	<0.05	<0.05	<0.005	<0.005	<0.005
	4/20/2010	8260B	<0.001	<0.001	**0.0023**	0.21	**7.6E-03**	0.012	0.014	0.043	<0.001	<0.001	<0.001
	6/17/2009	8260B	0.0018	<0.01	<0.01	0.047	**6.3E-03**	0.0061	<0.01	<0.01	<0.001	<0.001	<0.001
	12/2/2008	8260B	**0.018**	0.0065	**0.011**	0.67	**0.024**	**0.035**	0.064	0.028	<0.001	<0.001	2.4E-03
	9/9/2008	8260B	<0.01	<0.01	<0.02	0.11	<0.04	<0.04	<1.0	<1.0	<0.1	<0.1	<0.1
	6/17/2008	8260B	0.002	<0.01	**0.003**	0.16	**0.015**	0.023	0.018	0.01	<0.1	<0.1	<0.1
	3/11/2008	8260B	0.0043	0.001	**8.7E-03**	0.92	**0.02**	**0.028**	0.064	0.045	<0.001	<0.001	<0.001
EP-4	8/2/2010	8260B	<0.001	<0.001	<0.002	0.1	<0.004	<0.004	0.011	<0.01	<0.001	<0.001	<0.001
	4/20/2010	8260B	<0.001	<0.001	<0.002	0.19	**0.005**	7.3E-03	0.014	0.041	<0.001	<0.001	<0.001
	6/17/2009	8260B	<0.001	<0.001	<0.02	0.04	<0.04	<0.04	<0.01	<0.01	<0.001	<0.001	<0.001
	12/2/2008	8260B	0.013	0.0048	**7.5E-03**	0.6	**0.014**	0.021	0.043	0.034	<0.001	<0.001	2.3E-03
	9/9/2008	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.01	<0.01
	6/17/2008	8260B	<0.01	<0.01	<0.02	0.059	<0.04	<0.04	<0.1	0.05	<0.01	<0.01	<0.01
	3/11/2008	8260B	0.0028	<0.01	**6.6E-03**	0.8	**0.015**	0.022	0.042	0.063	<0.001	<0.001	<0.001
EP-5	8/2/2010	8260B	<0.001	<0.001	<0.002	0.045	<0.004	<0.004	<0.1	<0.1	<0.01	<0.01	<0.01
	4/20/2010	8260B	<0.001	<0.001	<0.002	0.13	<0.004	4.6E-03	0.011	0.047	<0.001	<0.001	<0.001
	6/17/2009	8260B	<0.001	<0.001	<0.02	0.031	<0.004	<0.004	<0.01	<0.01	<0.001	<0.001	<0.001
	12/2/2008	8260B	**0.048**	0.019	**2.5E-03**	0.2	**6.1E-03**	8.9E-03	0.016	0.015	<0.01	<0.01	1.1E-03
	9/9/2008	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.01	<0.01
	6/17/2008	8260B	<0.01	<0.01	<0.02	0.046	<0.04	<0.04	<0.1	0.033	<0.01	<0.01	<0.01
	3/11/2008	8260B	0.0015	--	**3.7E-03**	0.19	**0.011**	0.017	0.023	0.097	<0.01	<0.01	<0.01
EP-6	8/2/2010	8260B	<0.001	<0.001	<0.002	0.02	<0.004	<0.004	<0.1	<0.1	<0.01	<0.01	<0.01
	4/20/2010	8260B	<0.001	<0.001	<0.002	0.044	<0.004	<0.004	<0.1	<0.1	<0.001	<0.001	<0.001

8.10.5 Evaporation Ponds (EP-1 thru EP-12B)
Volatile Organics Analytical Result Summary

			Parameters									
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	Acetone (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	2-Butanone (mg/L)	Carbon disulfide (mg/L)	Chloroform (mg/L)	Chloromethane (mg/L)	n-Butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			**NE**	**NE**	**0.03**	**NE**	**NE**	**NE**	**NE**	**NE**	**0.01**	**NE**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.015**	**0.087**	**1.4E-04**	**1.2E+01**	**9.7E-04**	**0.027**	**NE**	**0.72**	**1.9E-04**	**0.19**	**0.78**
SAMPLE ID	**DATE SAMPLED**	**METHOD**											
EP-6	6/17/2009	8260B	<0.001	<0.001	<0.002	<0.01	<0.004	<0.004	<0.1	<0.1	<0.001	<0.001	<0.001
	12/2/2008	8260B	0.001	<0.001	<0.002	<0.01	<0.04	<0.04	<0.1	<0.1	<0.01	<0.01	<0.01
	9/9/2008	8260B	<0.001	<0.001	<0.002	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.01	<0.01
	6/17/2008	8260B	<0.001	<0.001	<0.002	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.01	<0.01
	3/11/2008	8260B	0.002	<0.001	**0.004**	0.64	**0.015**	0.02	0.032	0.04	<0.01	<0.01	<0.01
EP-7	8/2/2010	8260B	<0.001	<0.001	<0.002	0.061	<0.004	<0.004	<0.01	<0.01	<0.001	<0.001	<0.001
	4/20/2010	8260B	<0.001	<0.001	<0.002	0.023	<0.004	<0.004	<0.01	<0.01	<0.001	<0.001	<0.001
	6/17/2009	8260B	0.0011	<0.001	<0.02	0.034	<0.04	<0.04	<0.01	<0.01	<0.001	<0.001	<0.001
	12/2/2008	8260B	0.0013	<0.001	<0.02	0.017	<0.04	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01
	9/9/2008	8260B	<0.01	<0.01	<0.02	<0.02	<0.04	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01
	6/17/2008	8260B	0.0012	<0.001	<0.02	0.049	<0.04	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01
	3/11/2008	8260B	<0.001	<0.001	<0.02	0.034	<0.04	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01
EP-8	8/2/2010	8260B	<0.001	<0.001	<0.002	0.066	<0.004	<0.004	<0.01	<0.01	<0.001	<0.001	<0.001
	4/20/2010	8260B	<0.001	<0.001	<0.002	0.038	<0.004	<0.004	<0.01	<0.01	<0.001	<0.001	<0.001
	6/17/2009	8260B	<0.001	<0.001	<0.002	0.099	<0.004	<0.004	<0.01	<0.01	<0.001	1.4E-03	<0.001
	12/2/2008	8260B	<0.001	<0.001	<0.002	<0.1	<0.004	<0.004	<0.01	<0.01	<0.001	<0.001	<0.001
	9/9/2008	8260B	<0.001	<0.001	<0.002	<0.1	<0.004	<0.004	<0.01	<0.01	<0.001	<0.001	<0.001
	6/17/2008	8260B	0.0011	<0.001	<0.002	0.12	<0.004	<0.004	0.014	<0.01	0.0014	<0.001	<0.001
	3/11/2008	8260B	<0.001	<0.001	<0.002	0.024	<0.001	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001
EP-9a	4/20/2010[1]	8260B	<0.001	<0.001	<0.002	0.015	<0.004	<0.004	<0.01	<0.01	<0.001	<0.001	<0.001
EP-11	4/20/2010[1]	8260B	<0.001	<0.001	<0.002	0.039	<0.004	<0.004	<0.01	<0.01	<0.001	<0.001	<0.001
EP-12A	4/20/2010[1]	8260B	<0.001	<0.001	<0.002	0.13	<0.004	<0.004	0.011	0.034	<0.001	<0.001	<0.001
EP-12B	4/20/2010[1]	8260B	0.0016	<0.001	**3.4E-03**	0.3	**0.012**	0.019	0.025	0.035	<0.001	<0.001	<0.001

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis

Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table (Nov 2011)

NOTES:
1) Used unapproved 2010 FWGWMP at the beginning of 2010 which included the addition of evaporation ponds 9, 11, 12A and 12B.

8.10.6 Evaporation Ponds (EP-1 thru EP-12B)
Semi-Volatile Organic Analytical Result Summary

			Parameters														
			Aniline (mg/L)	Benzoic acid (mg/L)	Benzyl alcohol (mg/L)	Bis(2-ethyl hexyl)phthalate (mg/L)	Carbazole (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluorene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphthalene (mg/L)	2-Nitrophenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.03	NE	NE	0.005	NE	NE
40 CFR 141.62 MCL (June 8, 2012)			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (April 2012)			0.012	58	1.5	7.2E-05	NE	0.27	0.22	0.027	NE	NE	1.4E-04	NE	NE	4.5	0.087	0.015
SAMPLE ID	**SAMPLE DATE**	**METHOD**																
EP-1	11/16/2010	8270C	**0.6**	<0.02	<0.01	<0.01	0.017	**0.36**	0.017	**0.18**	2.1	4.2	**0.025**	<0.1	0.11	**8.5**	0.012	<0.01
	4/20/2010[1]	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	0.063	<0.05	**0.075**	<0.05	<0.05	<0.05	<0.05	0.11	**0.091**	<0.05	<0.05
EP-2	11/16/2010	8270C	**0.48**	<0.02	0.011	<0.05	0.01	0.24	<0.05	**0.089**	1.5	2.1	**0.027**	<0.01	0.014	**3.3**	<0.01	0.011
	4/20/2010[1]	8270C	<0.05	0.16	<0.05	<0.05	<0.05	0.06	<0.05	**0.075**	0.88	1.4	<0.05	0.073	0.1	**2.8**	<0.05	<0.05
EP-3	11/16/2010	8270C	**0.26**	<0.02	<0.01	<0.01	<0.01	0.14	<0.05	0.026	0.91	1.9	<0.01	<0.01	<0.01	**2.4**	<0.01	<0.01
	4/20/2010[1]	8270C	**0.22**	<0.1	<0.05	<0.05	<0.05	0.094	<0.05	<0.05	0.77	1.2	<0.05	<0.05	<0.05	**2.8**	<0.05	<0.05
EP-4	11/16/2010	8270C	**0.21**	<0.02	<0.01	**0.015**	<0.01	0.11	<0.05	<0.01	0.55	1.3	<0.01	<0.01	<0.01	**1.6**	<0.01	<0.01
	4/20/2010[1]	8270C	**0.18**	<0.1	<0.05	<0.05	<0.05	0.073	<0.05	<0.05	0.62	0.96	<0.05	<0.05	<0.05	**2.1**	<0.05	<0.05
EP-5	11/16/2010	8270C	**0.12**	<0.1	<0.05	<005	<0.05	0.09	<0.05	<0.05	0.6	1.1	<0.05	<0.05	<0.05	**1.2**	<0.05	<0.05
	4/20/2010[1]	8270C	**0.17**	<0.1	<0.05	<0.05	<0.05	0.074	<0.05	<0.05	0.64	1.0	<0.05	<0.05	<0.05	**2.2**	<0.05	<0.05
EP-6	11/16/2010	8270C	<0.01	<0.02	<0.01	**0.011**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.032**	<0.01	<0.01
	4/20/2010[1]	8270C	**0.081**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.3	0.44	<0.05	<0.05	<0.05	**0.38**	<0.05	<0.05
EP-7	11/16/2010	8270C	<0.01	<0.02	<0.01	**0.011**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	4/20/2010[1]	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
EP-8	11/16/2010	8270C	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	4/20/2010[1]	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
EP-9a	11/16/2010	8270C	<0.01	<0.02	<0.01	**0.013**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	4/20/2010[1]	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
EP-11	11/16/2010	8270C	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	4/20/2010[1]	8270C	<0.01	<0.02	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05
EP-12A	11/16/2010	8270C	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	4/20/2010[1]	8270C	**0.067**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	0.17	<0.05	<0.05	<0.05	**0.016**	<0.05	<0.05
EP-12B	11/16/2010	8270C	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.066	0.078	<0.01	<0.01	<0.01	**0.2**	<0.01	<0.01
	4/20/2010[1]	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	0.11	<0.05	<0.05	0.92	1.2	<0.05	<0.05	<0.05	**2.7**	<0.05	<0.05

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detectio Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES
1) Used the unapproved 2010 FWGWMP sampling guidelines for the first quarter of 2010 which included the addition of evaporation ponds 9a, 11, 12A and 12B.

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

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (June 8, 2012)			0.005	1	0.7	10	NE
EPA RSL for Tap Water (April 2012)			3.9E-04	0.86	1.3E-03	0.19	0.012
WELL ID	DATE SAMPLED	METHOD					
BW-1C	7/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/6/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/31/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/31/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/27/2006	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-2A	7/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/6/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/30/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/31/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/27/2006	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-2B	7/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/6/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/30/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/31/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/27/2006	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-2C	7/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/6/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/30/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/31/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/27/2006	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-3B	7/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/6/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/31/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/31/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/27/2006	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-3C	7/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/6/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/1/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/31/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/27/2006	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

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

NOTES

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

			Parameters								
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			1.6	250.0	NE	NE	10	NE	600.0	6 to 9	NE
40 CFR 141.62 MCL (June 8, 2012)			4.0	NE	NE	1.0	10	NE	NE	NE	NE
EPA RSL for Tap Water (April 2012)			0.62	NE	NE	1.6	25	3.1E-04	NE	NE	NE
Well ID	DATE SAMPLED	METHOD									
BW-1C	7/20/2010	300.0	**2.7**	37	0.11	<1.0	<1.0	<0.5	290	8.66	1400
	8/3/2009	300.0	**2.5**	42	0.12	<0.1	<0.1	<0.5	280	8.65	1300
	7/31/2008	300.0	**2.4**	35	<0.1	<1.0	<1.0	<0.5	260	8.68	1400
	12/31/2007	300.0	**2.6**	35	NL	<1.0	<1.0	<0.5	270	8.5	1400
	10/27/2006	300.0	**2.7**	36	NL	<0.5	<0.5	<0.5	NL	8.39	1400
BW-2A	7/20/2010	300.0	**1.2**	42	0.43	<1.0	<1.0	**0.68**	7.1	8.09	1300
	8/3/2009	300.0	**1.2**	45	0.42	<0.1	<0.1	**1**	7.2	8.13	1300
	7/30/2008	300.0	**1.1**	40	0.43	<1.0	<1.0	**0.75**	7.3	7.87	1400
	12/31/2007	300.0	**1.3**	42	NL	<1.0	<1.0	**0.7**	7.7	7.76	1400
	10/27/2006	300.0	**1.3**	NL	NL	<0.5	<0.5	**0.64**	7.5	8.27	1400
BW-2B	7/20/2010	300.0	**1.8**	32	0.82	<1.0	<1.0	<0.5	160	8.17	2200
	8/3/2009	300.0	**1.7**	36	0.86	<0.1	<0.1	<0.5	160	8.07	2200
	7/30/2008	300.0	**1.6**	30	1.1	<1.0	<1.0	<0.5	150	7.76	2200
	12/31/2007	300.0	**1.8**	30	NL	<1.0	<1.0	<0.5	150	7.77	2400
	10/27/2006	300.0	**1.9**	31	NL	<0.5	<0.5	<0.5	140	8.1	1400
BW-2C	7/20/2010	300.0	**2.1**	62	0.12	<1.0	<1.0	<0.5	310	8.73	1400
	8/3/2009	300.0	**1.9**	52	0.14	<0.1	0.13	<0.5	280	8.88	1300
	7/30/2008	300.0	**1.9**	44	0.14	<1.0	<1.0	<0.5	270	8.83	1400
	12/31/2007	300.0	**2.3**	45	NL	<1.0	<1.0	<0.5	290	8.73	1400
	10/27/2006	300.0	**2.4**	42	NL	<0.5	<0.5	<0.5	270	8.52	1300
BW-3B	7/20/2010	300.0	**1.4**	33	0.42	<0.01	<0.01	**1.1**	54	8.37	1500
	8/3/2009	300.0	**1.5**	41	0.45	<0.1	0.27	**1.4**	69	8.23	1500
	7/31/2008	300.0	**1.4**	34	0.42	<1.0	<1.0	**1.1**	55	7.95	1500
	12/31/2007	300.0	**1.6**	35	NL	<1.0	<1.0	**1.1**	51	7.93	1600
	10/27/2006	300.0	**1.7**	33	NL	<0.5	<0.5	**1.1**	250	8.5	1600

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

			Parameters								
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6 to 9**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**4.0**	**NE**	**NE**	**1.0**	**10**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.62**	**NE**	**NE**	**1.6**	**25**	**3.1E-04**	**NE**	**NE**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**									
BW-3C	7/20/2010	300.0	**1.4**	41	0.12	<0.1	0.12	<0.5	380	8.57	1500
	8/3/2009	300.0	**1.4**	43	0.14	<0.1	0.21	<0.5	320	8.65	1500
	8/1/2008	300.0	**1.5**	34	<1.0	<2.0	<2.0	<5.0	240	8.63	1500
	12/31/2007	300.0	**1.8**	38	NL	<1.0	<1.0	<0.5	300	8.59	1500
	10/27/2006	300.0	**1.9**	37	NL	<0.5	<0.5	<0.5	280	8.39	1400

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

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

NOTES

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

			Parameters														
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**6.9E-03**	**NE**	**NE**	**0.62**	**11**	**NE**	**NE**	**0.32**	**NE**	**0.078**	**NE**	**6.3E-04**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**																
BW-1C	7/20/2010	6010B	<0.02	<0.02	<0.002	NL	<0.006	<0.006	<0.05	<0.005	NL	8.3E-03	NL	<0.05	NL	<0.0002	0.003	<0.02
	7/6/2009	6010B	<0.02	<0.02	<0.002	NL	<0.006	<0.006	<0.05	<0.005	<1.0	2.7E-03	<1.0	<0.05	NL	<0.0002	0.002	<0.05
	7/31/2008	6010B	<0.02	0.016	<0.002	NL	<0.006	<0.006	<0.05	<0.005	0.62	0.013	<1.0	<0.05	310	<0.002	1.15E-03	<0.02
	12/31/2007	6010B	<0.02	0.023	<0.002	3.6	<0.006	<0.006	<0.05	<0.005	0.74	0.01	<1.0	<0.05	360	<0.0002	<0.1	<0.02
	10/28/2006	6010B	<0.02	<0.2	<0.002	3.4	<0.006	<0.006	<0.05	<0.005	<1.0	NL	<1.0	<0.05	NL	<0.0002	<0.1	<0.02
BW-2A	7/20/2010	6010B	<0.02	0.13	<0.002	NL	<0.006	<0.006	0.36	<0.005	NL	0.12	NL	<0.05	NL	<0.0002	<0.001	<0.02
	7/6/2009	6010B	<0.02	0.15	<0.002	NL	<0.006	<0.006	0.5	<0.005	3.4	0.15	<1.0	<0.05	NL	<0.0002	<0.001	<0.05
	7/30/2008	6010B	<0.02	0.14	<0.002	8.6	<0.006	<0.006	0.37	<0.005	3.2	0.14	<1.0	<0.05	320	<0.0002	<0.001	<0.02
	12/31/2007	6010B	<0.02	0.18	<0.002	11	<0.006	<0.006	0.7	<0.005	3.9	**0.22**	<1.0	<0.05	380	<0.0002	<0.1	<0.02
	10/28/2006	6010B	<0.02	0.15	<0.002	10	<0.006	<0.006	<0.05	<0.005	NL	NL	<1.0	<0.05	NL	<0.0002	<0.1	<0.02
BW-2B	7/20/2010	6010B	<0.02	0.047	<0.002	NL	<0.006	<0.006	0.16	<0.005	NL	**0.22**	NL	<0.05	NL	<0.0002	0.012	<0.02
	7/6/2009	6010B	<0.02	0.099	<0.002	NL	<0.006	<0.006	**1.8**	<0.005	4.1	**0.47**	1.8	<0.05	NL	<0.0002	0.013	<0.02
	7/31/2008	6010B	<0.02	0.041	<0.002	13	<0.006	<0.006	0.064	<0.005	3	0.16	<1.0	<0.05	570	<0.0002	1.15E-02	<0.02
	12/31/2007	6010B	<0.02	0.07	<0.002	16	<0.006	<0.006	0.62	<0.005	3.6	**0.29**	1.6	<0.05	640	<0.0002	<0.1	<0.02
BW-2C	7/20/2010	6010B	<0.02	0.024	<0.002	NL	0.017	<0.006	0.74	<0.005	NL	0.033	NL	<0.05	NL	<0.0002	0.006	<0.02
	7/6/2009	6010B	<0.02	0.078	<0.002	NL	<0.006	<0.006	0.85	<0.005	1.5	**0.2**	1.1	<0.05	NL	<0.0002	0.005	<0.05
	7/30/2008	6010B	<0.02	0.13	<0.002	24	<0.006	<0.006	**1.3**	<0.005	2	**0.43**	1.1	<0.05	300	<0.0002	7.26E-03	<0.02
	12/31/2007	6010B	<0.02	0.026	<0.002	2.9	<0.006	<0.006	0.16	<0.005	0.68	0.024	<1.0	<0.05	340	<0.0002	<0.1	<0.02
	10/28/2006	6010B	<0.02	0.031	<0.002	5.6	<0.006	<0.006	<0.05	<0.005	<1.0	NL	<1.0	<0.05	NL	<0.0002	<0.1	<0.02
BW-3B	7/20/2010	6010B	<0.02	0.079	<0.002	NL	<0.006	<0.006	0.45	<0.005	NL	0.074	NL	<0.05	NL	<0.0002	<0.001	<0.02
	7/6/2009	6010B	<0.02	0.098	<0.002	NL	<0.006	<0.006	0.62	<0.005	2.6	0.11	<1.0	<0.05	NL	<0.0002	<0.001	<0.05
	7/31/2008	6010B	<0.02	0.11	<0.002	8.3	<0.006	<0.006	0.43	<0.005	2.6	0.12	<1.0	<0.05	370	<0.0002	<0.001	<0.02
	12/31/2007	6010B	<0.02	0.099	<0.002	9	<0.006	<0.006	0.64	<0.005	2.9	0.13	<1.0	<0.05	430	<0.0002	<0.1	<0.02
	10/28/2006	6010B	<0.02	0.11	<0.002	9	<0.006	<0.006	<0.05	<0.005	NL	NL	<1.0	<0.05	NL	<0.0002	<0.1	<0.02
BW-3C	7/20/2010	6010B	<0.02	0.042	<0.002	NL	6.8E-03	<0.006	0.83	<0.005	NL	0.021	NL	<0.05	NL	<0.0002	<0.001	<0.02
	7/6/2009	6010B	<0.02	0.054	<0.002	NL	<0.006	<0.006	0.19	<0.005	<1.0	0.02	<1.0	<0.05	NL	<0.0002	0.001	<0.02
	8/1/2008	6010B	<0.02	0.27	<0.002	28	7.8E-03	<0.006	**3.0**	<0.005	2.2	**0.41**	1.6	<0.05	350	<0.0002	2.51E-03	0.032
	12/31/2007	6010B	<0.02	0.068	<0.002	4.2	<0.006	<0.006	0.14	<0.005	0.81	0.015	1.1	<0.05	360	<0.0002	<0.1	<0.02
	10/28/2006	6010B	<0.02	0.059	<0.002	6	<0.006	<0.006	<0.05	<0.005	NL	NL	<1.0	<0.05	NL	<0.0002	<0.1	<0.02

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

			Parameters													
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	1.0	0.01	NE	0.05	1.0	1.0	0.05	NE	0.2	NE	0.05	NE	0.002	0.03	10
40 CFR 141.62 MCL (June 8, 2012)			0.01	2.0	0.005	NE	0.1	1.3[1]	NE	0.015[1]	NE	NE	NE	0.05	NE	0.002	0.03	NE
EPA RSL for Tap Water (April 2012)			4.5E-05	2.9	6.9E-03	NE	NE	0.62	11	NE	NE	0.32	NE	0.078	NE	6.3E-04	0.047	4.7
Well ID	DATE SAMPLED	METHOD																

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Primary Drinking Water Regulation (May 2009); Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES:

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

			Parameters													
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.50E-05**	**2.9**	**6.90E-03**	**NE**	**NE**	**0.62**	**11**	**NE**	**NE**	**0.32**	**NE**	**0.078**	**NE**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**															
BW-1C	7/20/2010	6010B	<0.02	<0.02	<0.002	3.2	<0.006	<0.006	<0.02	<0.005	<1.0	9.4E-03	<1.0	<0.05	310	0.003	<0.05
	7/6/2009[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/1/2008[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/31/2007[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/28/2006[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BW-2A	7/20/2010	6010B	<0.02	0.14	<0.002	9.6	<0.006	<0.006	0.29	<0.005	3.5	0.14	<1.0	<0.05	340	<0.001	<0.05
	7/6/2009[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/1/2008[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/31/2007[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/28/2006[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BW-2B	7/20/2010	6010B	<0.02	0.047	<0.002	14	<0.006	<0.006	0.14	<0.005	3.1	0.22	1.23	1.2	580	0.012	<0.05
	7/6/2009[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/1/2008[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/31/2007[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/28/2006[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BW-2C	7/20/2010	6010B	<0.02	<0.02	<0.002	4.9	<0.006	<0.006	0.028	<0.005	1.3	4.5E-03	<1.0	<0.05	330	0.006	<0.05
	7/6/2009[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/1/2008[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/31/2007[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/28/2006[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BW-3B	7/20/2010	6010B	<0.02	0.076	<0.002	8.5	<0.006	<0.006	0.21	<0.005	2.6	0.083	<1.0	<0.05	390	<0.001	0.054
	7/6/2009[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/1/2008[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/31/2007[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/28/2006[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BW-3C	7/20/2010	6010B	<0.02	0.035	<0.002	3.8	<0.006	<0.006	0.073	<0.005	<1.0	0.013	<1.0	<0.05	370	0.001	<0.05
	7/6/2009[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/1/2008[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/31/2007[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/28/2006[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

			Parameters												
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	1.0	0.01	NE	0.05	1.0	1.0	0.05	NE	0.2	NE	0.05	NE	0.03	10.0
40 CFR 141.62 MCL (June 8, 2012)			0.01	2.0	0.005	NE	0.1	1.3[1]	NE	0.015[1]	NE	NE	NE	0.05	NE	0.03	NE
EPA RSL for Tap Water (April 2012)			4.50E-05	2.9	6.90E-03	NE	NE	0.62	11	NE	NE	0.32	NE	0.078	NE	0.047	4.7
Well ID	DATE SAMPLED	METHOD															

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1. National Secondary Drinking Water Regulation (May 2009); Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES
2) Analysis 6010B run as Total Recoverable Metals only.

8.11.4 BW-3B, BW-3C

Semi-Volatile Organic Analytical Result Summary

			Parameters
			Bis(2-ethylhexyl)phthalate (mg/L)
WQCC 20NMAC 6.2.3103			NE
40 CFR 141.62 MCL (June 8, 2012)			NE
EPA RSL for Tap Water (April 2012)			7.1E-05
Well ID	**DATE SAMPLED**	**METHOD**	
BW-3B	7/20/2010	8270C/8260	<0.01
	7/6/2009	8270C/8260	**0.01**
BW-3C	10/28/2011	8270C	**0.014**

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

NOTES

8.11.4 BW-3B, BW-3C
Semi-Volatile Organic Analytical Result Summary

8.12 EP-2 Inlet
BTEX, DRO/GRO, TDS Analytical Result Summary

			Parameters							
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	DRO (mg/L)	GRO (mg/L)	TDS (mg/L)
WQCC 20NMAC 6.2.3103 (mg/L)			**0.01**	**0.75**	**0.75**	**0.62**	**NE**	**0.2[1]**	**NE**	**1000**
40 CFR 141.62 MCL (June 8, 2012)			**0.005**	**1.0**	**0.7**	**10**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**3.9E-04**	**0.86**	**1.3E-03**	**0.19**	**0.012**	**NE**	**NE**	**NE**
SAMPLE ID	**DATE SAMPLED**	**METHOD**								
EP-2 Inlet	7/21/2010	8260B/8015B	<0.005	<0.005	<0.005	<0.0075	<0.005	**21**	0.83	**4120**
	6/17/2009	8260B/8015B	3.9E-03	0.02	**4.2E-03**	0.037	<0.001	**23**	2.0	**2600**
	8/21/2008	8260B/8015B	<0.01	0.026	**0.014**	0.1	<0.01	**290**	10	**2000**
	1/1/2008[2]	8260B/8015B	**0.13**	0.26	**0.044**	**0.26**	5.2E-03	**150**	2.6	**2200**

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STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
1) NMED Table 2a. TPH Screening Guidelines for Potable Ground Water (GW-1). (Oct 2006)
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES
2) Due to inclement weather in December 2007, samples were collected in January 2008.

8.12.1 EP-2 Inlet

BOD/COD Analytical Result Summary

			Parameters	
			BOD (mg/L)	COD (mg/L)
20NMAC 6.2.2101			<30	<125
SAMPLE ID	**DATE SAMPLED**	**METHOD**		
EP-2 Inlet	7/21/2010	SM5210B/5220C	**1400**	**3200**
	6/18/2009	SM5210B/5220C	**191**	**1149**
	8/22/2008	SM5210B/5220C	**348**	**1540**
	3/26/2008	SM5210B/5220C	**649**	**1430**
	3/20/2008	SM5210B/5220C	**344**	**829**
	3/11/2008	SM5210B/5220C	**651**	**1150**
	3/6/2008	SM5210B/5220C	**947**	**1520**
	2/28/2008	SM5210B/5220C	**46.1**	**2440**
	2/21/2008	SM5210B/5220C	**>394**	**1950**
	2/14/2008	SM5210B/5220C	**570**	**2290**
	2/7/2008	SM5210B/5220C	**671**	**2570**
	1/31/2008	SM5210B/5220C	**414**	**1290**
	1/25/2008	SM5210B/5220C	**520**	**1200**
	1/18/2008	SM5210B/5220C	**462**	**1460**
	1/11/2008	SM5210B/5220C	**449**	**1350**

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STANDARDS
20 NMAC 6.2.2101 - General Requirements

NOTES:

8.12.2 EP-2 Inlet

Volatile Organic Analytical Result Summary

			Parameters											
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	2-Butanone (mg/L)	Carbon Disulfide (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	**0.03**	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
40 CFR 141.62 MCL (June 8,2012)			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (Apr 2012)			**0.015**	**0.087**	**1.4E-04**	**9.7E-04**	**0.027**	**12**	NE	**0.72**	NE	NE	**0.78**	NE	NE
SAMPLE ID	**DATE SAMPLED**	**METHOD**													
EP-2 Inlet	7/21/2010	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.49	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	6/17/2009	8260B	**0.025**	8.2E-03	**0.011**	**0.057**	0.061	0.5	0.046	0.011	<0.001	<0.001	4.4E-03	1.8E-03	<0.001
	8/21/2008	8260B	**0.11**	0.035	**0.02**	**0.3**	**0.34**	1.2	0.14	<.1	<0.01	<0.01	0.029	0.013	<0.001
	1/1/2008[1]	8260B	**0.17**	0.047	**0.25**	**0.46**	**0.75**	<0.05	<0.05	0.14	6.3E-03	0.007	0.044	0.019	7.1E-03

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STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS concentration or less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES
1) Due to inclement weather in December 2007, samples were taken in January 2008.

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

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (June 8, 2012)			0.005	1	0.7	10	NE
EPA RSL for Tap Water (April 2012)			3.9E-04	0.86	1.3E-03	0.19	0.012
WELL ID	DATE SAMPLED	METHOD					
MW-1	7/16/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/16/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/4/2008	8260B	<0.005	<0.001	<0.001	<0.0015	NA
	12/29/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/26/2006	8260B	<0.001	<0.001	<0.001	<0.0015	<0.0015
MW-2	7/16/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
MW-4	7/19/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/8/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/5/2008	8260B	<0.005	<0.001	<0.001	<0.0015	NA
	12/29/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/12/2005	8260B	<0.001	<0.001	<0.001	<0.0015	<0.0015
MW-5	7/19/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/15/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/13/2008	8260B	<0.005	<0.001	<0.001	<0.0015	NA
	12/29/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/12/2005	8260B	<0.001	<0.001	<0.001	<0.0015	<0.0015

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

NOTES

8.13.1 MW-1, MW-2, MW-4, MW-5
General Chemistry Analytical Result Summary

			Parameters								
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6 to 9**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**4.0**	**NE**	**NE**	**1**	**10**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.62**	**NE**	**NE**	**1.6**	**25**	**3.1E-04**	**NE**	**NE**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**									
MW-1	7/16/2010	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/16/2009	300.0	0.76	53	NL	<1.0	<1.0	<0.5	160	9.02	1100
	7/10/2008	300.0	**81**	51	NL	<1.0	<1.0	<0.5	160	8.95	1100
	12/29/2007	300.0	**0.89**	53	NL	<1.0	<1.0	<0.5	170	8.89	1100
	5/24/2007	300.0	**0.69**	53	NL	<1.0	<1.0	<0.5	170	8.89	1100
	10/26/2006	300.0	**0.84**	46	NL	<1.0	<1.0	<0.5	150	8.98	NL
MW-2	7/16/2009	300.0	**0.82**	60	NL	<1.0	<1.0	<0.5	170	9	1100
MW-4	7/19/2010	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/8/2009	300.0	0.37	16	NL	<1.0	<1.0	<0.5	160	8.74	1200
	8/5/2008	300.0	0.37	17	NL	<1.0	<1.0	<0.5	160	8.63	1200
	12/29/2007	300.0	0.42	17	NL	<1.0	<1.0	<0.5	160	8.63	1200
MW-5	7/19/2010	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/15/2009	300.0	0.76	66	NL	<1.0	<1.0	<0.5	180	8.96	1100
	8/13/2008	300.0	**0.85**	63	0.15	<1.0	<1.0	<0.5	180	**9.02**	1200
	12/29/2007	300.0	**0.91**	65	NL	<1.0	<1.0	<0.5	180	8.93	1200

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STANDARDS
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a) Human Health Standards; b) Other standards for Domestic Water
1) NMED Table 2a. TPH Screening Guidelines for Potable Ground Water (GW-1). (Oct 2006)
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES:

8.13.2 MW-1, MW-2, MW-4, MW-5
DRO/GRO Analytical Result Summary

			Parameters	
			DRO (mg/L)	GRO (mg/L)
WQCC 20NMAC 6.2.3103 (Oct 2006)			0.2[1]	NE
Well ID	DATE SAMPLED	METHOD		
MW-1	7/16/2010	8015B	<1.0	<0.05
	3/1/2010[3]	8015B	<1.0	<0.05
	7/16/2009	8015B	<1.0	<0.05
	8/4/2008	8015B	<1.0	<0.05
	12/29/2007	8015B	<1.0	<0.05
	10/26/2006	8015B	<1.0	<0.05
MW-2	10/10/2010	8015B	<1.0	<0.05
	3/1/2010[3]	8015B	<1.0	<0.05
MW-4	7/19/2010	8015B	<1.0	<0.05
	3/1/2010[2]	8015B	<1.0	<0.05
	7/8/2009	8015B	<1.0	<0.05
	8/5/2008	8015B	<1.0	<0.05
	12/29/2007	8015B	<1.0	<0.05
	2006[2]	8015B	NA	NA
MW-5	10/10/2010	8015B	<1.0	<0.05
	7/19/2010	8015B	<1.0	<0.05
	3/1/2010[2]	8015B	<1.0	<0.05
	7/15/2009	8015B	<1.0	<0.05
	8/13/2008	8015B	<1.0	<0.05
	12/29/2007	8015B	<1.0	<0.05
	2006[2]	8015B	NA	NA

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STANDARDS
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a) Human Health Standards; b) Other standards for Domestic Water
1) NMED Table 2a. TPH Screening Guidelines for Potable Ground Water (GW-1). (Oct 2006)
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES
2) Wells MW-4, MW-5, SMW-2 and SMW-4 were not sampled in 2006. Analyses for metals were not conducted in 2006.
3) This was part of the 10 year RCRA Post Closure Sampling Event

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

			Parameters											
			Arsenic (mg/L)	Barium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Sodium (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Cyanide (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**NE**	**0.05**	**NE**	**1.0**	**0.05**	**0.2**	**0.05**	**0.2**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**NE**	**0.1**	**NE**	**NE**	**0.015[1]**	**NE**	**0.05**	**0.2**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**NE**	**11**	**NE**	**0.32**	**0.078**	**9.3E-03**	**6.3E-04**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**													
MW-1	7/16/2010	6010B	**1.46E-03**	<0.02	NL	<0.006	NL	NL	<0.005	NL	<0.001	<0.01	<0.0002	NL	<002
	3/1/10[3]	6010B	<0.005	<0.02	NL	<0.006	NL	NL	<0.005	NL	<0.005	<0.01	<0.0002	NL	<0.02
	7/16/2009	6010B	**1.24E-03**	0.015	2.1	<0.006	250	NL	<0.005	NL	<0.001	<0.01	<0.0002	NL	<0.02
	8/4/2008	6010B	<0.02	<0.02	NL	<0.006	NL	NL	<0.005	NL	<0.05	<0.01	<0.0002	NL	NL
	12/29/2007	6010B	**0.02**	<0.02	3.2	<0.006	280	0.092	<0.005	0.018	<0.05	<0.01	<0.0002	<0.1	<0.05
	10/26/2006	6010B	NL	0.019	NL	<0.006	NL	NL	<0.005	NL	NL	<0.01	<0.0002	NL	<0.02
MW-2	3/1/10[3]	6010B	<0.005	<0.02	NL	<0.006	NL	NL	<0.005	NL	<0.005	<0.01	<0.0002	NL	<0.02
	7/16/2009	6010B	**1.04E-03**	0.019	1.6	<0.006	250	NL	<0.005	NL	<0.001	<0.01	<0.0002	NL	<0.02
MW-4	7/19/2010	6010B	**1.17E-03**	<0.02	NL	<0.006	NL	NL	<0.005	NL	<0.001	<0.01	<0.0002	NL	<0.02
	3/1/10[3]	6010B	<0.005	0.023	NL	<0.006	NL	NL	<0.005	NL	<0.005	<0.01	<0.0002	NL	<0.02
	7/8/2009	6010B	<0.001	0.022	1.7	<0.006	280	NL	<0.005	NL	<0.001	<0.01	<0.0002	NL	<0.02
	8/5/2008	6010B	<0.02	<0.02	NL	<0.006	NL	NL	<0.005	NL	<0.05	<0.01	<0.0002	NL	<0.05
	12/29/2007	6010B	<0.02	0.021	1.9	<0.006	320	<0.05	<0.005	0.0052	<0.05	<0.01	<0.0002	<0.1	<0.05
	2006[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-5	7/19/2010	6010B	**1.36E-03**	<0.02	NL	<0.006	NL	NL	<0.005	NL	<0.001	<0.01	<0.0002	NL	<0.02
	3/1/10[3]	6010B	<0.005	0.024	NL	<0.006	NL	NL	<0.005	NL	<0.005	<0.01	<0.0002	NL	<0.02
	7/15/2009	6010B	<0.001	0.017	1.5	<0.006	260	NL	<0.005	NL	<0.001	<0.01	<0.0002	NL	<0.02
	8/13/2008	6010B	<0.02	<0.02	NL	<0.006	NL	NL	<0.005	NL	<0.05	NL	<0.0002	NL	<0.05
	12/29/2007	6010B	<0.02	<0.02	1.5	<0.006	290	<0.05	<0.005	4.5E-03	<0.05	<0.01	<0.0002	<0.01	<0.05
	2006[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Secondary Drinking Water Regulation (May 2009); Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES
2) Wells MW-4, MW-5 were not sampled in 2006. Analyses for metals was not conducted in 2006.
3) This was part of the 10 year RCRA Post Closure Sampling Event.

8.13.4 MW-1, MW-2, MW-4, MW-5
Dissolved Metals Analytical Result Summary

			Parameters												
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**NE**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.50E-05**	**2.9**	**6.90E-03**	**NE**	**NE**	**0.62**	**11**	**NE**	**0.32**	**NE**	**0.078**	**NE**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**														
MW-1	7/16/2010[3]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/1/2010[3]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/15/2009[3]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/4/2008	6010B	<0.02	<0.02	<0.002	1.7	<0.006	<0.006	NL	<0.005	NL	<1.0	<0.05	260	NL	NL
	12/29/2007	6010B	<0.02	<0.02	<0.002	1.9	<0.006	NL	NL	<0.005	NL	<1.0	<0.05	230	NL	NL
MW-2	7/16/2010[3]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/1/2010[3]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/16/2009[3]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	7/19/2010[3]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/1/2010[3]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/8/2009[3]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/5/2008	6010B	<0.02	<0.02	<0.002	1.8	<0.006	<0.006	NL	<0.005	NL	<1.0	<0.05	280	NL	NL
	12/29/2007	6010B	<0.02	<0.02	<0.002	1.9	<0.006	<0.006	NL	<0.005	NL	<1.0	<0.05	250	NL	NL
	2006[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-5	7/15/2009[3]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/1/2010[3]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/15/2009[3]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/13/2008	6010B	<0.02	<0.02	<0.002	1.4	<0.006	NL	NL	<0.005	NL	<1.0	<0.05	260	NL	<0.05
	12/29/2007	6010B	<0.02	<0.02	<0.002	1.4	<0.006	NL	NL	<0.005	NL	<1.0	<0.05	240	NL	NL
	2006[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less. a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Secondary Drinking Water Regulation (May 2009); Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES
2) Wells MW-4, MW-5 were not sampled in 2006. Analyses for metals was not conducted in 2006.
3) Analysis 6010B Total Recoverable Metals only.

8.13.5 MW-1, MW-2, MW-4, MW-5

Volatile and Semi-Volatile Organic Analytical Result Summary

			Parameters		
			Acetone (mg/L)	Diethyl phthalate (mg/L)	Bis (2-ethylphthalate) (mg/L)
WQCC 20NMAC 6.2.3103			**NE**	**NE**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**12**	**11**	**7.1E-05**
Well ID	**DATE SAMPLED**	**METHOD**			
MW-1	7/16/2010	8260/8270C	<0.01	1.03E-03	<0.005
	3/1/2010[3]	8260/8270C	<0.0025	NL	<0.005
	7/16/2009	8260/8270C	<0.0025	<0.01	<0.005
	8/4/2008	8260/8270C	<0.0025	<0.0005	<0.0005
	12/29/2007	8260/8270C	<0.0025	<0.01	<0.01
MW-2	7/16/2009	8260/8270C	<0.0025	<0.01	<0.005
	3/1/2010[3]	8260/8270C	2.73E-03	<0.01	<0.005
MW-4	7/19/2010	8260/8270C	<0.01	<0.01	<0.005
	3/1/2010[3]	8260/8270C	<0.0025	<0.01	<0.005
	7/8/2009	8260/8270C	<0.0025	NL	<0.005
	8/5/2008	8260/8270C	<0.0025	<0.0005	**6.79E-03**
	12/29/2007	8260/8270C	<0.01	<0.01	<0.01
	2006[2]	8260/8270C	NA	NA	NA
MW-5	7/19/2010	8260/8270C	<0.01	<0.01	<0.005
	3/1/2010[3]	8260/8270C	3.36E-03	NL	<0.005
	7/15/2009	8260/8270C	4.92E-03	NL	NL
	8/13/2008	8260/8270C	<0.0025	<0.0005	<0.005
	12/29/2007	8260/8270C	<0.001	<0.01	<0.01
	2006[2]	8260/8270C	NA	NA	NA

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

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

NOTES

2) Wells MW-4 and MW-5 were not sampled in 2006. Analyses for metals were not conducted in 2006.

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

8.14 OW-11, OW-12
BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (June 8, 2012)			0.005	1	0.7	10	NE
EPA RSL for Tap Water (April 2012)			3.9E-04	0.86	1.3E-03	0.19	0.012
Well ID	DATE SAMPLED	METHOD					
OW-11	7/28/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/27/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.0025
	8/14/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.0025
	12/27/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.0025
	10/24/2006	8260B	<0.001	<0.001	<0.001	<0.0015	<0.0025
OW-12	7/22/2010	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	7/29/2009	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	8/19/2008	8260B	<0.001	<0.001	<0.001	<0.002	<0.001
	12/27/2007	8260B	<0.001	<0.001	<0.001	<0.002	<0.001
	10/27/2006	8260B	<0.001	<0.001	<0.001	<0.001	<0.0025

DEFINITIONS
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Bold and highlighted values represent values above the applicable standards

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

NOTES

8.14.1 OW-11

General Chemistry Analytical Result Summary

			Parameters								
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6 to 9**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**4.0**	**NE**	**NE**	**1**	**10**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.62**	**NE**	**NE**	**1.6**	**25**	**3.1E-04**	**NE**	**NE**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**									
OW-11	7/28/2010	300.0	**2.8**	89	0.21	<0.1	0.3	<0.5	**1100**	8.39	2800
	7/27/2009	300.0	**2**	97	NL	**1.2**	1.2	<0.5	**950**	8.41	2500
	8/14/2008	300.0	**2.2**	90	0.29	0.75	0.75	<0.5	**940**	8.39	2600
	12/27/2007	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/24/2006	300.0	**2.5**	86	NL	<0.1	<0.1	<0.5	**1100**	8.4	3100

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

NOTES

8.14.2 OW-11

Total Metals Analytical Result Summary

			Parameters														
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**NE**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**NE**	**0.05**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**6.90E-03**	**NE**	**NE**	**0.62**	**11**	**NE**	**NE**	**0.32**	**NE**	**NE**	**0.078**	**6.3E-04**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**																
OW-11	7/28/2010	6010B	<0.02	<0.02	<0.002	NL	<0.006	<0.006	<0.05	<0.005	NL	0.016	1.8	NL	<0.05	<0.0002	**0.236**	<0.02
	7/27/2009	6010B	**2.02E-03**	<0.01	<0.002	11	<0.006	<0.006	<0.05	<0.005	1.2	0.016	1.8	640	5.06E-03	<0.0002	**0.216**	<0.02
	8/14/2008	6010B	<0.02	<0.01	<0.002	11	<0.006	<0.006	<0.05	<0.005	1.3	0.015	1.8	640	<0.05	<0.0002	**0.249**	<0.02
	12/27/2007	6010B	<0.02	<0.01	<0.002	11	<0.006	<0.006	<0.05	<0.005	1.3	0.016	1.6	NL	<0.05	<0.0002	**0.22**	NL
	10/28/2006	6010B	<0.02	<0.02	<0.002	12	<0.006	<0.006	<0.05	<0.005	1.4	NL	NL	NL	<0.05	<0.0002	NL	NL

DEFINITIONS

NE = Not established

NA = Not analyzed

NL = Not listed on laboratory analysis

Bold and highlighted values represent values above the applicable standards

STANDARDS

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

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

40 CFR 141.62 Detection Limits for Inorganic Contaminants

1) National Primary Drinking Water Regulation (May 2009); Action Level

EPA Regional Screening Level (RSL) Summary Table

NOTES

8.14.3 OW-11

Dissolved Metals Analytical Result Summary

			Parameters													
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.03**	**10**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**6.9E-03**	**NE**	**NE**	**0.62**	**11**	**NE**	**NE**	**0.32**	**NE**	**0.078**	**NE**	**4.7E-02**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**															
OW-11	7/28/2010	6010B	<0.02	<0.02	<0.002	12	<0.006	<0.006	<0.02	<0.005	1.3	0.016	1.8	<0.05	630	**0.215**	<0.05
	7/27/2009[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/14/08[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/27/2007	6010B	NA	<0.01	NA	11	NA	NA	<0.05	NA	1.3	0.016	1.6		690	**0.22**	NA
	10/28/2006	6010B	NA	<0.02	NA	12	NA	NA	<0.05	NA	1.4	NA	NA	NA	NA	NA	NA

NOTES
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STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Secondary Drinking Water Regulation (May 2009)

Notes:
2) Analysis 6010B run as Total Recoverable Metals only.

8.15 SMW-2, SMW-4

BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			**0.01**	**0.75**	**0.75**	**0.62**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**0.005**	**1.0**	**0.7**	**10**	**NE**
EPA RSL for Tap Water (April 2012)			**3.9E-04**	**0.86**	**1.3E-03**	**0.19**	**0.012**
Well ID	**DATE SAMPLED**	**METHOD**					
SMW-2	7/16/2010	8260B	<0.001	<0.001	<0.001	<0.0015	8.8E-03
	7/27/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/14/2008	8260B	<0.005	<0.001	<0.001	<0.0015	<0.001
	1/1/2008[2]	8260B	<0.001	<0.001	<0.001	<0.0015	9.9E-03
	2006[1]	8260B	NA	NA	NA	NA	NA
SMW-4	7/16/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/27/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/14/2008	8260B	<0.005	<0.001	<0.001	<0.0015	<0.001
	12/29/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	2006[1]	8260B	NA	NA	NA	NA	NA

DEFINITIONS

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STANDARDS

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

NOTES

1) Wells SMW-2 and SMW-4 were not sampled in 2006. Analyses for metals were not conducted in 2006.

2) Due to inclement weather in December 2007, annual samples were not collected until January 2008

8.15.1 SMW-2, SMW-4
General Chemistry Analytical Result Summary

			Parameters										
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	DRO (mg/L)	GRO (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6 TO 9**	**NE**	**0.2[1]**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**4.0**	**NE**	**NE**	**1**	**10**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.62**	**NE**	**NE**	**1.6**	**25**	**3.1E-04**	**NE**	**NE**	**NE**	**NE**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**											
SMW-2	7/16/2010	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<0.05
	7/27/2009	300.0	0.32	**2300**	NL	<10	<10	<2.5	**1700**	7.61	7700	<1.0	0.73
	8/14/2008	300.0	0.36	**2000**	3.1	<1.0	<1.0	<0.5	**1600**	7.25	8700	<1.0	0.36
	1/1/2008[3]	300.0	0.36	**2000**	NL	<2.0	<2.0	<0.5	**1600**	7.29	9200	<1.0	0.69
	2006[2]	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SMW-4	7/16/2010	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<0.05
	3/1/2010[4]	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<0.05
	1/0/1900	300.0	**1.2**	58	NL;	<1.0	<1.0	<0.5	170	8.53	1300	<1.0	0.69
	8/14/2008	300.0	**1.1**	52	0.15	0.11	0.11	<0.5	150	8.63	1200	<1.0	<0.05
	12/29/2007	300.0	**1.4**	60	NL	<1.0	<1.0	<0.5	180	8.34	1300	<1.0	<0.05
	2006[2]	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
1) NMED Table 2a. TPH Screening Guidelines for Potable Ground Water (GW-1). (Oct 2006)
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Sreening Level (RSL) Summary Table

NOTES
2) Wells SMW-2 and SMW-4 were not sampled in 2006. Analyses for metals were not conducted in 2006.
3) *Due to inclement weather in December 2007, annual samples were not collected until January 2008*
4) This was part of the 10 year RCRA Post Closure sampling event

8.15.2 SMW-2, SMW-4
Total Metals Analytical Result Summary

			Parameters															
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Selenium (mg/L)	Cyanide (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**NE**	**0.05**	**0.02**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**NE**	**0.05**	**0.02**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**6.90E-03**	**NE**	**NE**	**0.62**	**11**	**NE**	**NE**	**0.32**	**NE**	**NE**	**0.078**	**9.3E-03**	**6.30E-04**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**																	
SMW-2	7/16/2010	6010B	**3.5E-03**	0.022	<0.002	NL	**0.093**	NL	NL	<0.005	NL	NL	NL	NL	<0.001	**5.25E-02**	<0.0002	NL	<0.02
	7/27/2009	6010B	**0.00384**	0.016	<0.002	220	<0.006	NL	NL	6.30E-03	68	NL	1.1	2000	4.7E-03	**6.62E-02**	<0.0002	NL	<0.02
	8/14/2008	6010B	<0.02	<0.02	<0.002	NL	9.20E-03	NL	NL	<0.005	NL	NL	<1.0	NL	<0.05	**6.17E-02**	<0.0002	NL	0.11
	1/1/2008[2]	6010B	<0.02	<0.02	<0.002	200	**0.055**	NL	NL	<0.005	69	NL	1.1	2200	<0.25	**6.51E-02**	<0.0002	NL	<0.05
	2006[1]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SMW-4	7/16/2010	6010B	**3.33E-03**	0.027	<0.002	NL	<0.006	NL	NL	<0.005	NL	NL	NL	NL	<0.001	<0.01	<0.0002	NL	<0.02
	3/1/10[3]	6010B	<0.005	0.035	<0.002	NL	8.2E-03	NL	NL	<0.005	NL	NL	NL	NL	<0.005	<0.01	<0.0002	NL	<0.02
	7/27/2009	6010B	**2.97E-03**	0.028	<0.002	4.4	7.5E-03	NL	NL	<0.005	1.4	NL	<1.0	310	<0.001	<0.01	<0.0002	NL	<0.02
	8/14/2008	6010B	<0.02	<0.02	<0.002	NL	<0.006	NL	NL	<0.005	NL	NL	NL	NL	<0.05	<0.01	<0.0002	NL	<0.05
	12/29/2007	6010B	<0.02	0.024	<0.002	4.6	<0.006	NL	NL	<0.005	1.2	NL	<1.0	340	<0.05	<0.01	<0.0002	NL	<0.05
	2006[1]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Primary Drinking Water Regulation (May 2009) Action Level
EPA Regional Sreening Level (RSL) Summary Table (Nov 2011)

NOTES
1) Wells SMW-2 and SMW-4 were not sampled in 2006. Analyses for metals were not conducted in 2006.
2) Due to inclement weather in December 2007, annual samples were not collected until January 2008
3) This was part of the 10 year RCRA Post Closure sampling event

8.15.3 SMW-2, SMW-4
Dissolved Metals Analytical Result Summary

			Parameters														
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Selenium (mg/L)	Cyanide (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**NE**	**0.05**	**0.02**	**0.03**	**10**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**NE**	**0.05**	**0.02**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.5E-05**	**2.9**	**6.90E-03**	**NE**	**NE**	**0.62**	**11**	**NE**	**NE**	**0.32**	**NE**	**NE**	**0.078**	**9.3E-03**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**																
SMW-2	7/16/2010	6010B[4]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/27/2009	6010B[4]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/14/2008	6010B	<0.02	<0.02	<0.002	200	<0.006	NL	NL	<0.005	64	NL	<1.0	1900	<0.25	NL	NL	NL
	1/1/2008[2]	6010B	<0.02	<0.02	<0.002	190	<0.006	NL	NL	<0.005	64	NL	1.1	1700	<0.05		NL	NL
	2006[1]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SMW-4	7/16/2010	6010B[4]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/1/10[3]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/27/2009	6010B[4]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/14/2008	6010B	<0.02	<0.02	<0.002	3.0	<0.006	NL	NL	<0.005	<1.0	NL	<1.0	280	<0.05	NL	NL	NL
	12/29/2007	6010B	<0.02	<0.02	<0.002	3.6	<0.006	NL	NL	<0.005	<1.0	NL	<1.0	260	<0.05	NL	NL	NL
	2006[1]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Primary Drinking Water Regulatioin (May 2009), Action Level
EPA Regional Sreening Level (RSL) Summary Table (Nov 2011)

NOTES
1) Wells SMW-2 and SMW-4 were not sampled in 2006. Analyses for metals were not conducted in 2006.
2) Due to inclement weather in December 2007, annual samples were not collected until January 2008
3) This was part of the 10 year RCRA Post Closure sampling event
4) Analysis 6010B Total Recoverable Metals only.

8.15.4 SMW-2, SMW-4

Volatile and Semi-Volatile Organics Analytical Result Summary

			Parameters					
			Acetone (mg/L)	bis(2-Ethylhexyl)phthalate (mg/L)	Diethylphthalate (mg/L)	Phenol (mg/L)	1,4-Dioxane (mg/L)	Benzenethiol (mg/L)
WQCC 20NMAC 6.2.3103			**NE**	**NE**	**NE**	**0.005**	**NE**	**NE**
40 CFR 141.62 MCL (June 8, 2012)			**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**12**	**7.2E-05**	**1.1E+01**	**4.5E+00**	**6.7E-04**	**0.013**
Well ID	**DATE SAMPLED**	**METHOD**						
SMW-2	7/16/2010	8260B/8270C	<0.01	<0.0001	1.89E-03	<0.001	NL	<0.0005
	7/27/2009	8260B/8270C	6.25E-03	<0.0001	<0.0001	<0.001	<0.001	<0.0005
	11/13/2008	8260B/8270C	7.53E-03	<0.0001	<0.0001	<0.001	<.001	<0.0005
	8/14/2008	8260B/8270C	7.53E-03	<0.0005	5.7E-04	<0.0001	**1.36E-02**	<0.0001
	1/1/2008[2]	8260B/8270C	<0.01	<0.0001	<0.0001	<0.0001	**1.48E-02**	1.9E-04
	2006[1]	8260B/8270C	NA	NA	NA	NA	**NA**	NA
SMW-4	7/16/2010	8260B/8270C	<0.01	<0.0001	<0.0001	<0.001	NL	<0.0005
	3/1/2010[3]	8260B/8270C	<0.0025	<0.005	<0.01	<0.01	<0.005	<0.005
	7/27/2009	8260B/8270C	<0.0025	1.05E-03	1.48E-03	<0.001	<0.001	<0.0005
	8/14/2008	8260B/8270C	NA	<0.0001	5.0E-04	1.13E-03	<0.005	<0.0001
	12/29/2007	8260B/8270C	<0.01	<0.0001	<0.0001	<0.0001	<0.005	<0.0001
	2006[1]	8260B/8270C	NA	NA	NA	NA	NA	NA

DEFINITIONS

NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS

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

NOTES

1) Wells SMW-2 and SMW-4 were not sampled in 2006. Analyses for metals were not conducted in 2006.
2) Due to inclement weather in December 2007, annual samples were not collected until January 2008
3) This was part of the 10 year RCRA Post Closure Sampling requirement, Total Recoverable Metals Analysis

8.16 PW-2, PW-3, PW-4
BTEX Analytical Result Summary

			Parameters						
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)
WQCC 20NMAC 6.2.3103			**0.01**	**0.75**	**0.75**	**0.62**	**NE**	**NE**	**10**
40 CFR 141.62 MCL (June 8, 2012)			**0.005**	**1**	**0.7**	**10**	**NE**	**1**	**10**
EPA RSL for Tap Water (April 2012)			**3.9E-04**	**8.6E-01**	**1.3E-03**	**0.19**	**0.012**	**1.6**	**25**
Well ID	**DATE SAMPLED**	**METHOD**							
PW-2	9/12/2008	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.01	<1.0	<1.0
	12/9/2004	8260B	<0.001	<0.001	<0.001	<0.0015	NA	<1.0	<1.0
PW-3	9/23/2010	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.01	<1.0	<1.0
	8/21/2008	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.01	<0.01	0.13
	1/1/2008	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.01	<0.2	<0.2
	10/27/2006	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.01	<0.2	<0.2
PW-4	7/28/2010	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.001	<0.01	0.14
	9/12/2008	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.01	<0.01	<0.02
	8/4/2004	8260B	<0.001	<0.001	<0.001	<0.0015	NA	<0.01	<0.02

DEFINITIONS	**STANDARDS**
NE = Not established	WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
NA = Not analyzed	a) Human Health Standards; b) Other Standards for Domestic Water
NL = Not listed on laboratory analysis	40 CFR 141.62 Detection Limits for Inorganic Contaminants
Bold and highlighted values represent values above the applicable standards	EPA Regional Screening Level (RSL) Summary Table

NOTES

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

8.16.1 PW-2, PW-3, PW-4
Total Metals Analytical Result Summary

			Parameters														
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Mercury (mg/L)	Cyanide (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**NE**	**0.05**	**NE**	**0.002**	**0.2**	**0.03**	**10**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**0.05**	**NE**	**0.002**	**0.2**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.50E-05**	**2.9**	**6.9E-03**	**NE**	**NE**	**0.62**	**11**	**NE**	**0.32**	**NE**	**0.078**	**NE**	**6.30E-04**	**9.3E-03**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**																
PW-2	9/12/2008	6010B	<0.02	0.013	<0.002	NL	<0.006	<0.006	0.07	<0.005	<0.002	NL	<0.05	NL	<0.0002	<0.01	1.6E-03	<0.05
PW-3	9/23/2010	6010B	<0.02	<0.02	<0.002	NL	<0.006	0.032	0.47	7.4E-03	4.6E-03	NL	<0.05	NL	<0.0002	<0.005	0.001	0.037
	8/21/2008	6010B	<0.02	<0.02	<0.002	NL	<0.006	<0.006	<0.05	<0.005	<0.0002	NL	<0.25	NL	<0.0002	<0.004	<0.00063	<0.05
	1/1/2008	6010B	<0.02	0.014	<0.002	190	<0.006	<0.006	0.2	5.6E-03	0.015	1.2	<0.5	15	<0.0002	<0.01	<0.1	0.041
	10/27/2006	6010B	<0.02	<0.02	<0.002	NL	<0.006	<0.006	<0.05	<0.005	<0.0002	NL	<0.05	NL	<0.0002	<0.01	<0.1	<0.05
PW-4	7/28/2010	6010B	<0.02	<0.02	<0.002	NL	<0.006	<0.006	0.23	<0.005	4.40E-03	NL	<0.05	NL	<0.0002	<0.01	2.1E-03	<0.02
	9/12/2008	6010B	<0.02	0.013	<0.002	NL	<0.006	<0.006	0.11	<0.005	0.005	NL	<0.05	NL	<0.0002	<0.01	1.4E-03	<0.02

DEFINITIONS
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NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Primary Drinking Water Regulation (May 2009); Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES

8.16.2 PW-2, PW-3, PW-4
Dissolved Metals Analytical Result Summary

			Parameters											
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**NE**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (June 8, 2012)			**0.01**	**2.0**	**0.005**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (April 2012)			**4.50E-05**	**2.9**	**6.90E-03**	**NE**	**NE**	**0.62**	**11**	**NE**	**0.32**	**NE**	**0.078**	**NE**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**														
PW-2	9/12/2008[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PW-3	9/23/2010	6010B	<0.02	<0.02	<0.002	240	<0.006	<0.006	0.098	<0.005	<0.002	1.5	<0.05	50	0.001	<0.05
	8/23/2008[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/1/2008[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/27/2006[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PW-4	7/28/2010	6010B	<0.02	<0.02	<0.002	NL	<0.006	<0.006	0.09	<0.005	3.60E-03	NL	<0.05	NL	1.46E-03	0.086
	9/12/2008[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
1) National Primary Drinking Water Regulation (May 2009); Action Level
EPA Regional Screening Level (RSL) Summary Table

NOTES:
2) Analysis 6010B run as Total Recoverable Metals only.

8.16.3 PW-2, PW-3, PW-4

Semi-Volatile Organic Analytical Result Summary

			Parameters					
			2,4-Dimethylphenol (mg/L)	2-Methylnaphthalene (mg/L)	2-Methylphenol (mg/L)	3+4-Methylphenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)
WQCC 20NMAC 6.2.3103			**NE**	**NE**	**NE**	**NE**	**NE**	**0.005**
40 CFR 141.62 MCL (June 8, 2012)			**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (April 2012)			**0.27**	**0.027**	**NE**	**NE**	**NE**	**4.5**
Well ID	**DATE SAMPLED**	**METHOD**						
PW-3	11/1/2010[3]	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	9/23/2010[2]	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	8/21/2008	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	1/1/2008[1]	8270C	0.016	**0.032**	0.21	0.36	0.017	**0.8**

DEFINITIONS
NE = Not established
NA = Not analyzed
NL = Not listed on laboratory analysis
Bold and highlighted values represent values above the applicable standards

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

NOTES

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

2) *Method 8270C sample was extracted past the 7 day holding time.*

3) Method 8270C analysis was re-sampled due to Hall Lab note stating sample for 8270 was extracted past the 7 day holding time.

9.0 Well Summary Table

The Well Data Summary Table is currently under revision based on past information reporting incorrect ground level elevation, stick up length, well casing elevation, and well casing bottom elevations. These discrepancies were outlined in NMED's NOD, Annual Ground Water Monitoring Report, Gallup Refinery 2009, dated May 16, 2011, Comment 15d, "*[I]t appears that all the wells need to be resurveyed to provide accurate information. NMED will address resurveying all wells at the refinery in a separate letter*". Based on this comment Gallup Refinery determined there was an immediate need to have the wells resurveyed and did not wait for the official letter dated June 6, 2011, "Requirement to Resurvey Ground water Monitoring Wells and Recovery Wells," from NMED. Gallup Refinery was in receipt of the letter on June 7, 2011 and at this time the survey was already in progress and completed on June 7, 2011.

The Well Data Summary Table was updated with data provided by DePauli Engineering who conducted the survey on all active wells on June 7, 2011. Gallup Refinery submitted the survey report along with the updated Well Data Summary Table to NMED on August 1, 2011 and to date has not been approved. The Well Data Summary Table will be submitted as soon as the survey data has been approved by NMED.

9.0 Well Summary Table

The Well Data Summary Table is currently under revision based on past information reporting incorrect ground level elevation, stick up length, well casing elevation, and well casing bottom elevations. These discrepancies were outlined in NMED's NOD, Annual Ground Water Monitoring Report, Gallup Refinery 2009, dated May 16, 2011, Comment 15d, "*[I]t appears that all the wells need to be resurveyed to provide accurate information. NMED will address resurveying all wells at the refinery in a separate letter*". Based on this comment Gallup Refinery determined there was an immediate need to have the wells resurveyed and did not wait for the official letter dated June 6, 2011, "Requirement to Resurvey Ground water Monitoring Wells and Recovery Wells," from NMED. Gallup Refinery was in receipt of the letter on June 7, 2011 and at this time the survey was already in progress and completed on June 7, 2011.

The Well Data Summary Table was updated with data provided by DePauli Engineering who conducted the survey on all active wells on June 7, 2011. Gallup Refinery submitted the survey report along with the updated Well Data Summary Table to NMED on August 1, 2011 and to date has not been approved. The Well Data Summary Table will be submitted as soon as the survey data has been approved by NMED.

10.0 Figures

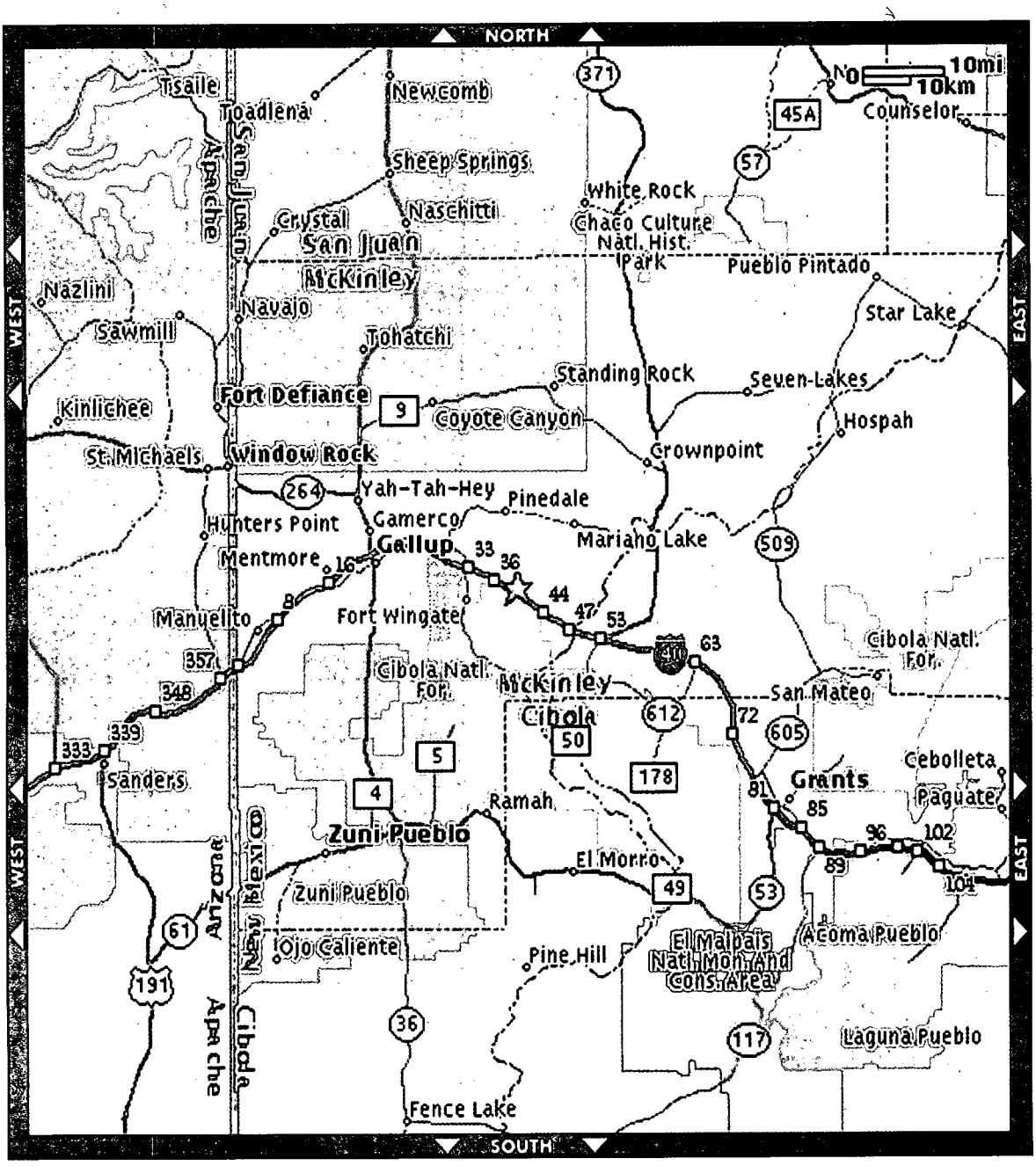


Figure 1: Regional map showing the location of the Gallup Refinery (red star along Interstate-40, 20 miles east of the City of Gallup).

10.0 Figures

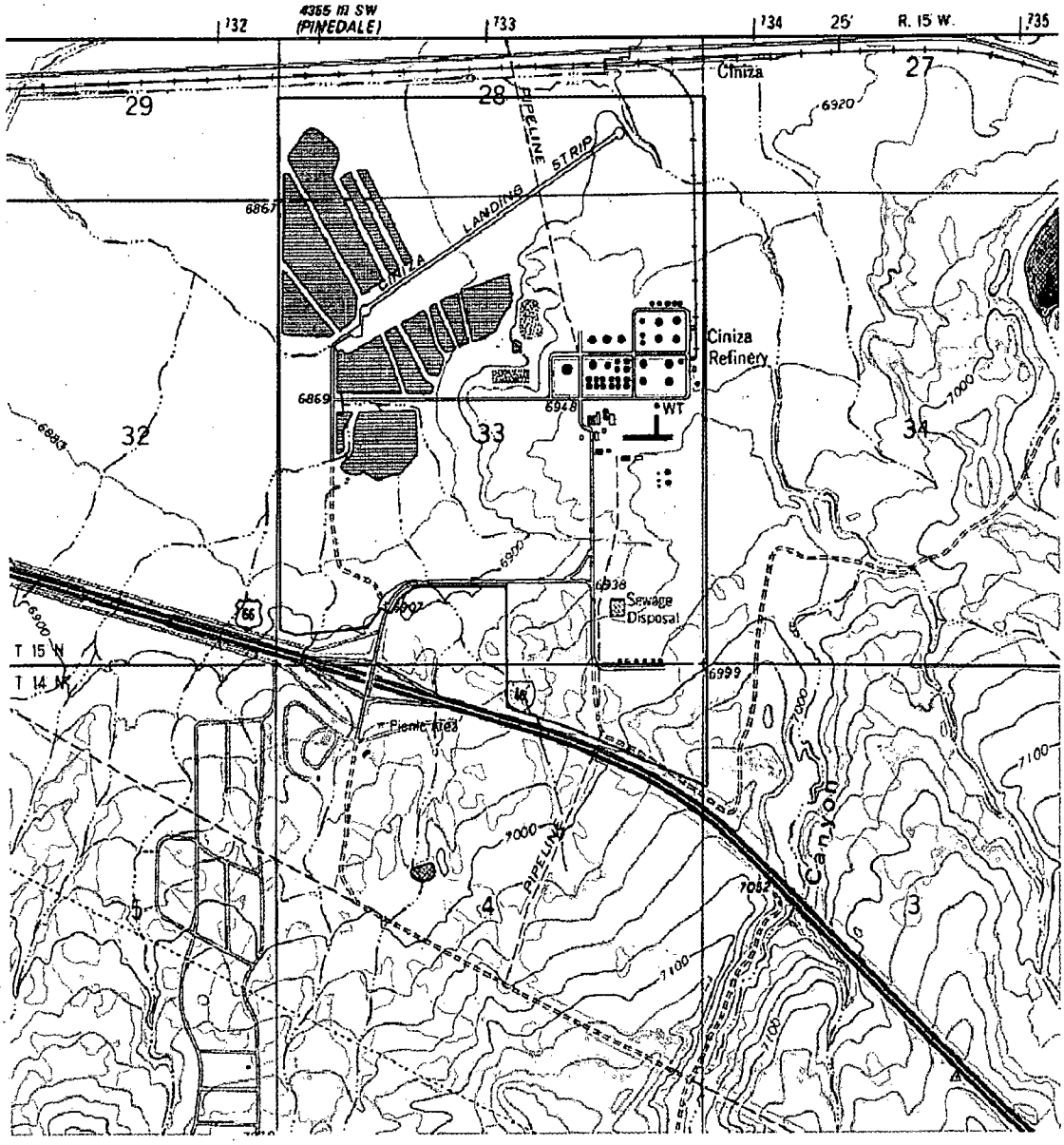


Figure 2: Topographic Map of the Gallup Refinery Site - USGS Topographical Map - Gallup Quadrangle (Revised 1980)

10.0 Figures

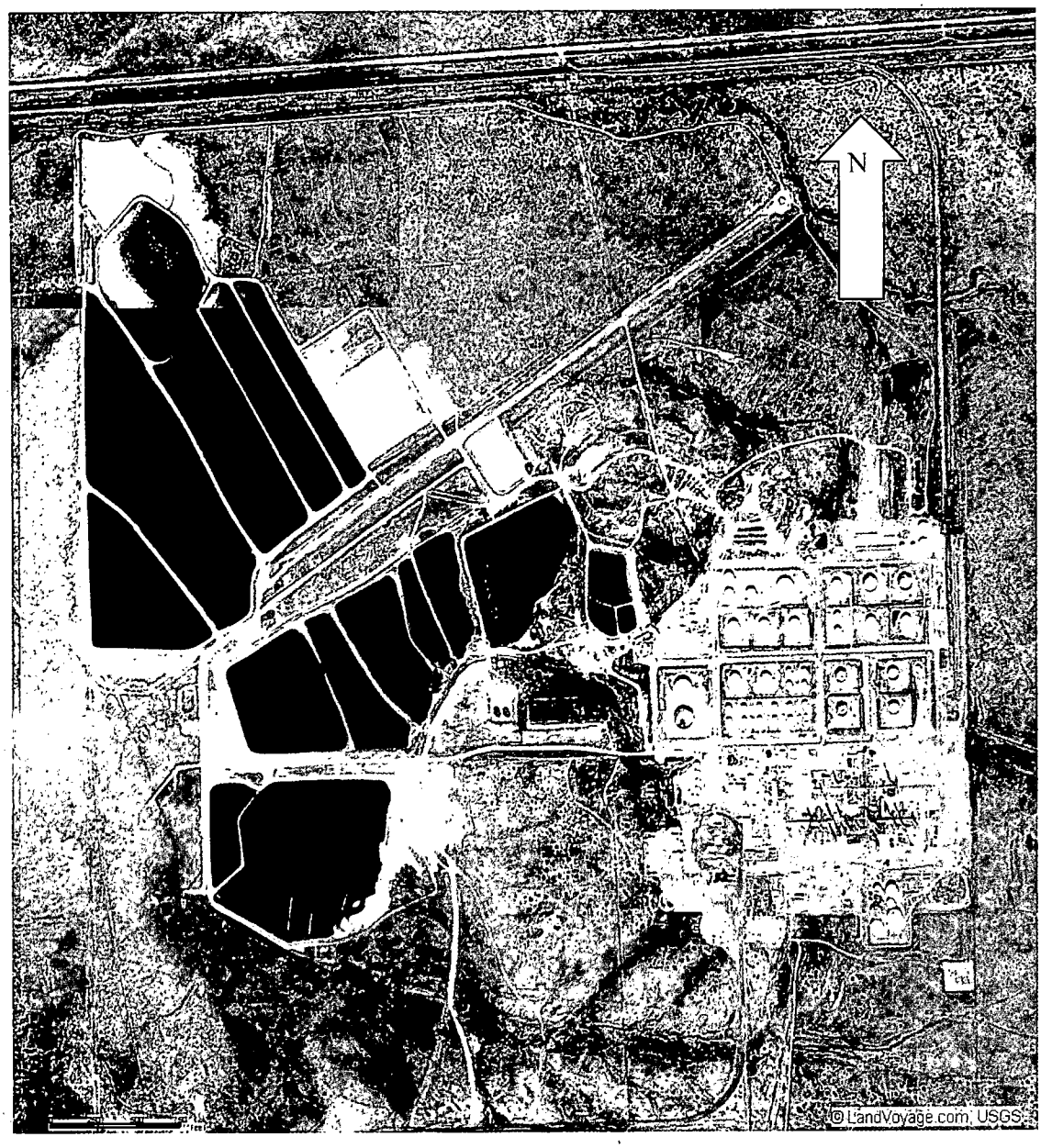
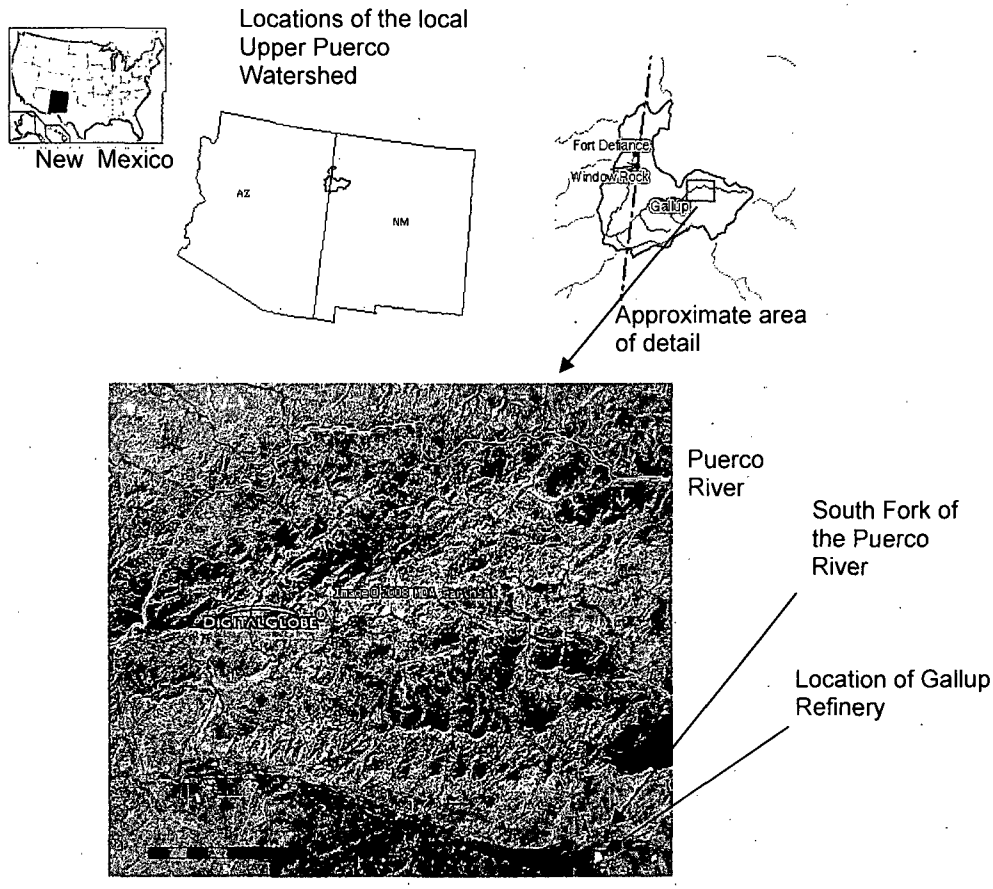


Figure 3: Aerial photograph of the Gallup Refinery

10.0 Figures

Figure 4: **Regional scale**: Flow lines and major surface water bodies (from: EPA Enviromapper - http://map24.epa.gov/EMR/?ZoomToWatershed=15020006) North is towards the top of the page.



10.0 Figures

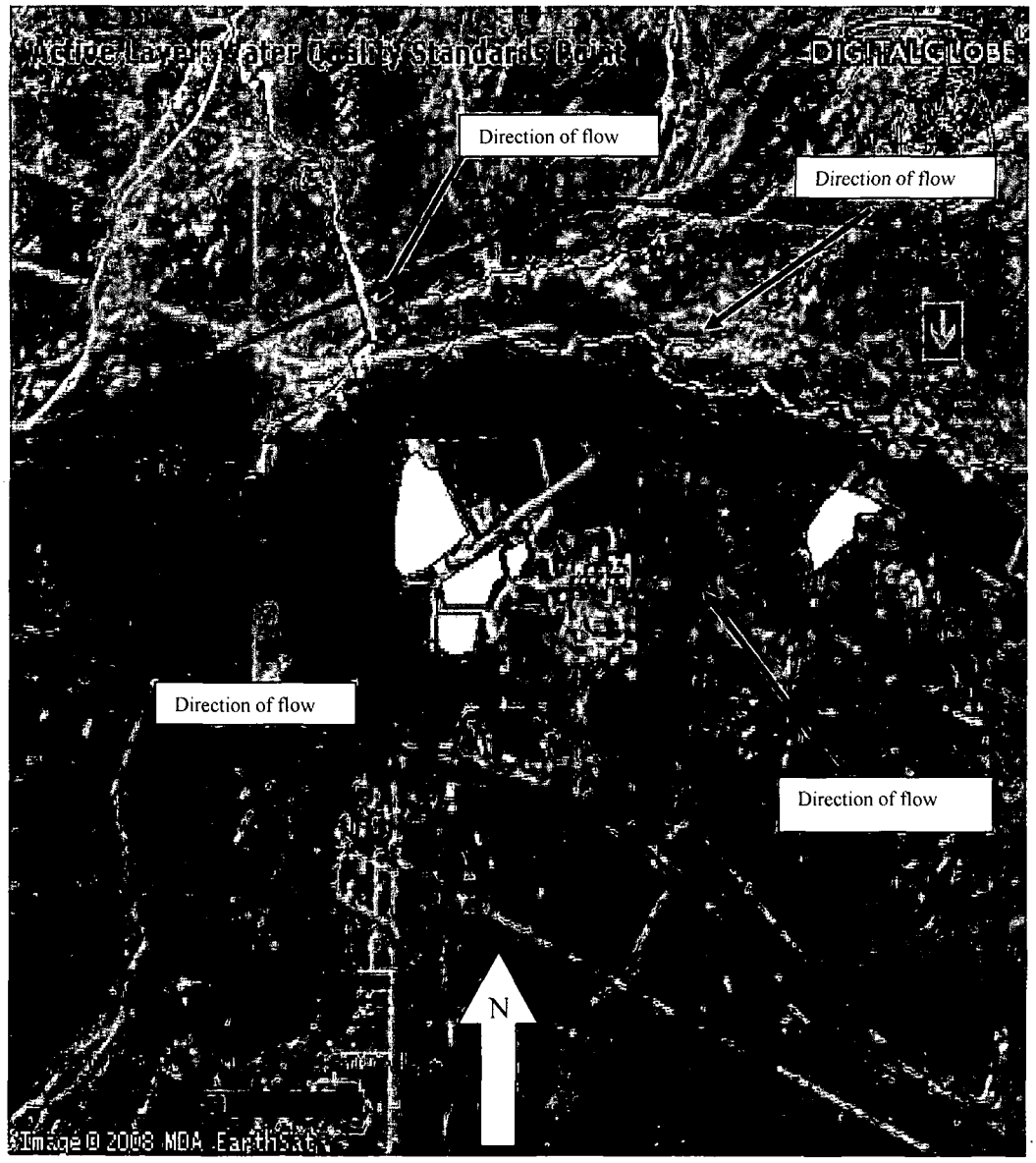
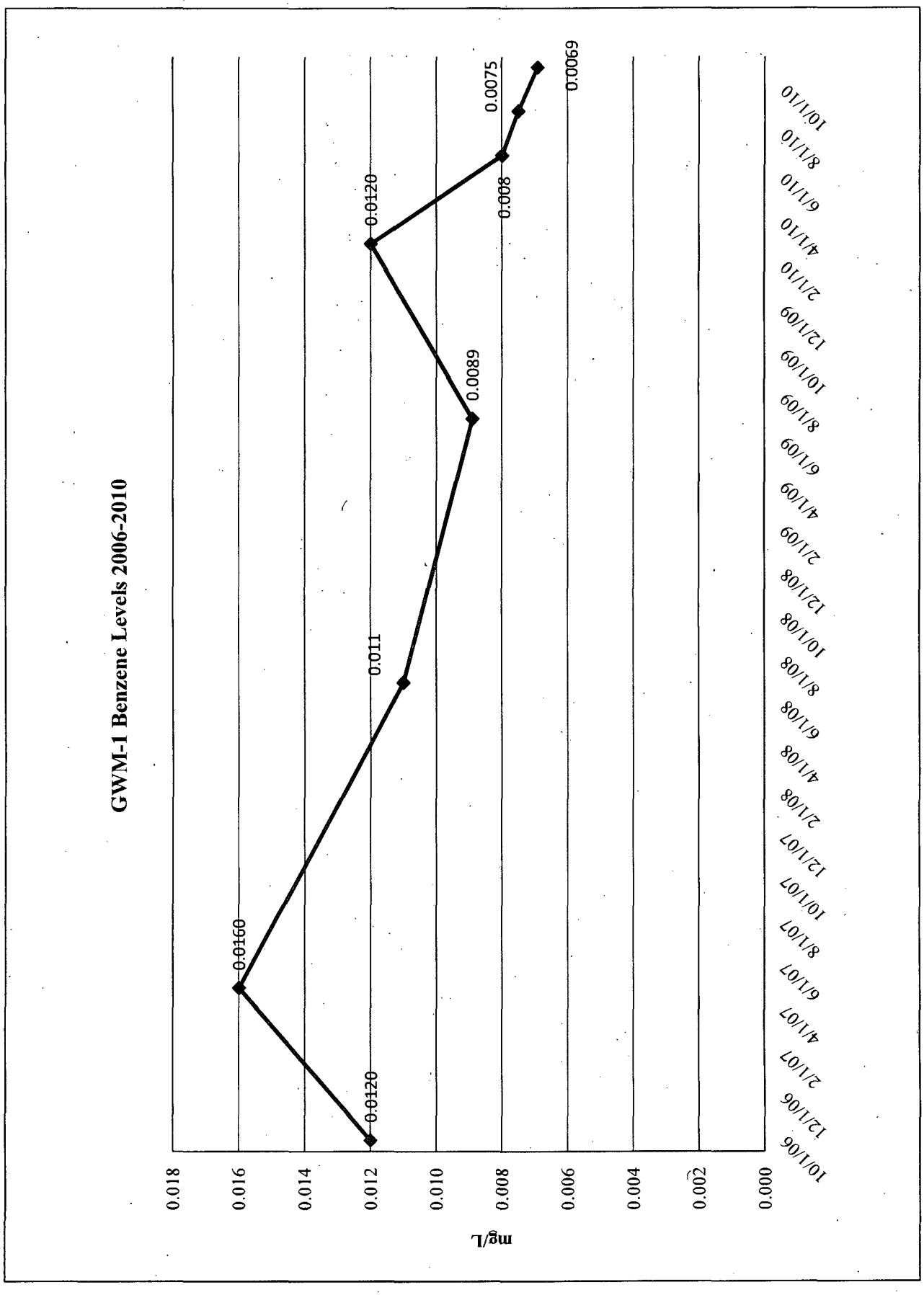
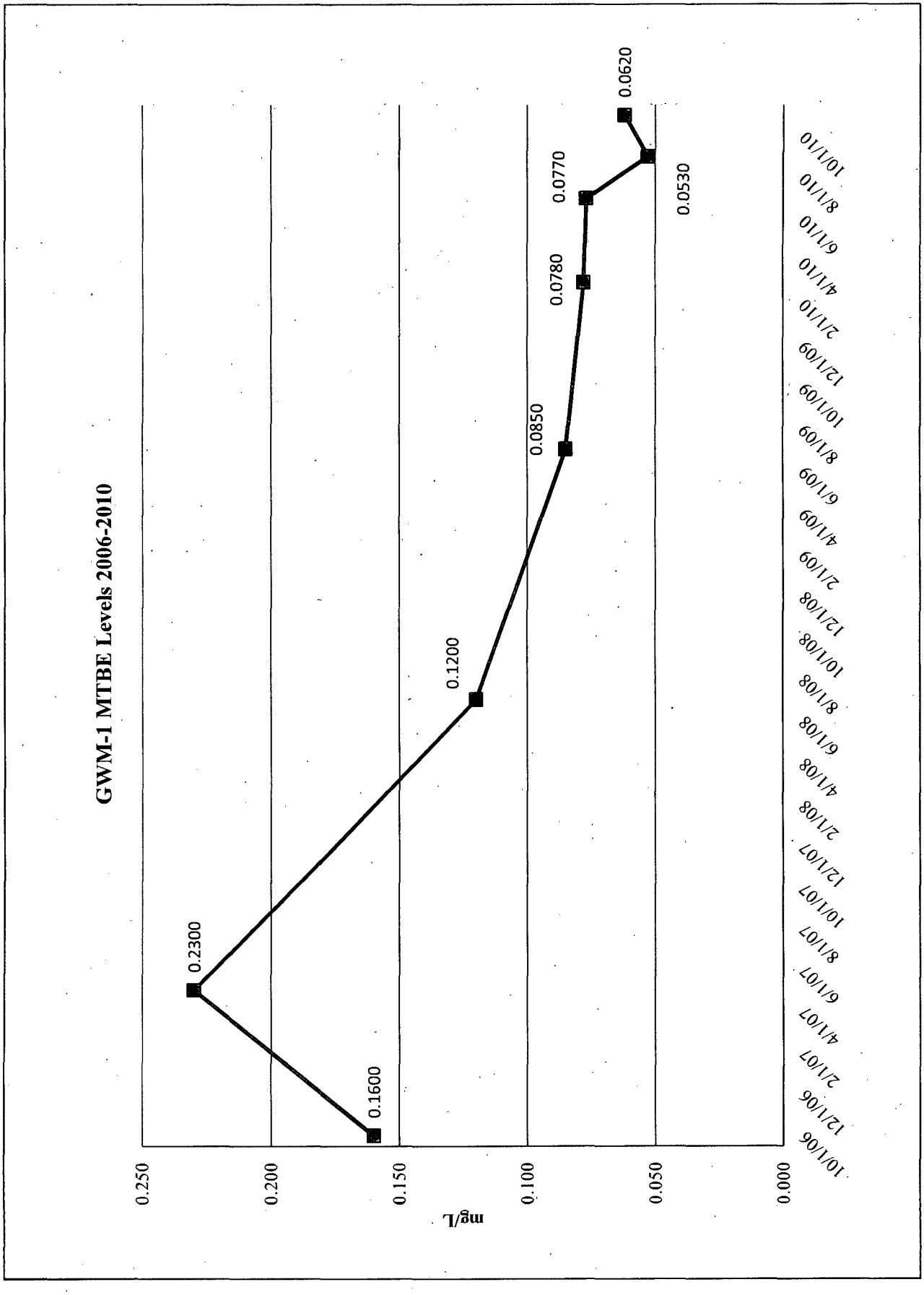


Figure 5: Localized scale: Flow lines and major surface water bodies (from: EPA Enviromapper - http://map24.epa.gov/EMR/?ZoomToWatershed=15020006) North is towards the top of the page. The pond to the east is Jon Myers' Livestock Pond.

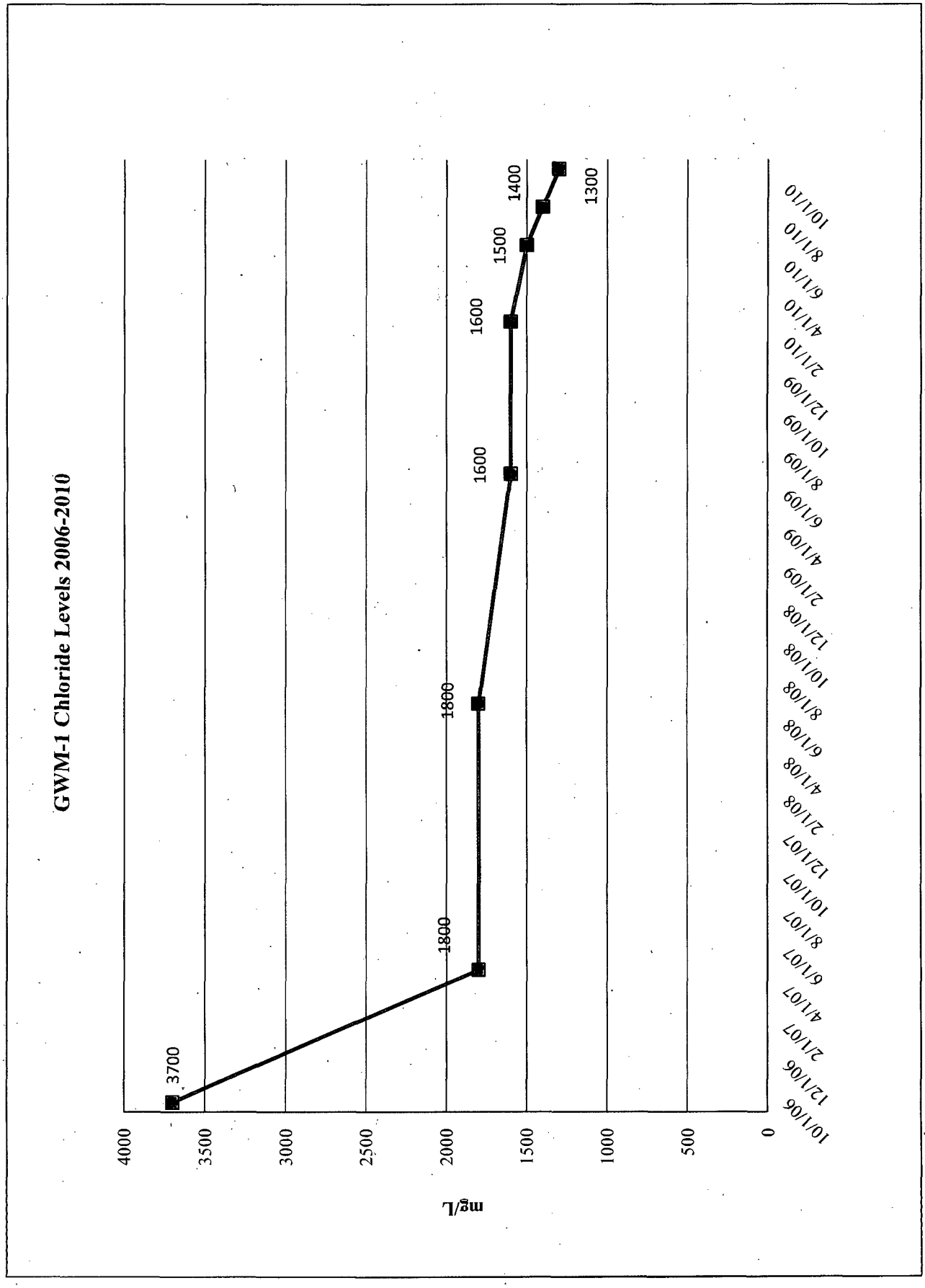
11.0 GRAPHS



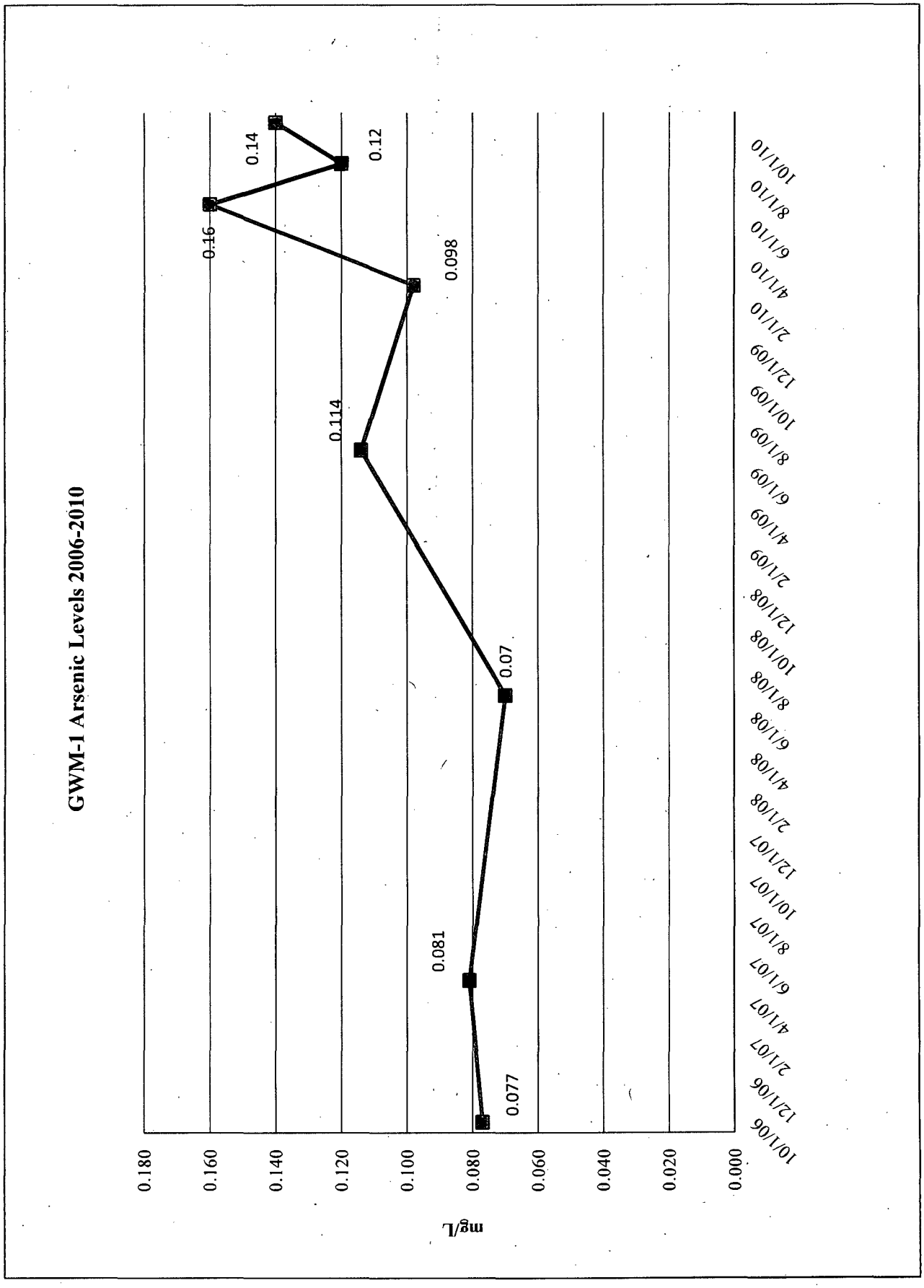
Graph 1: GWM-1 Benzene Levels



Graph 2: GWM-1 MTBE Levels

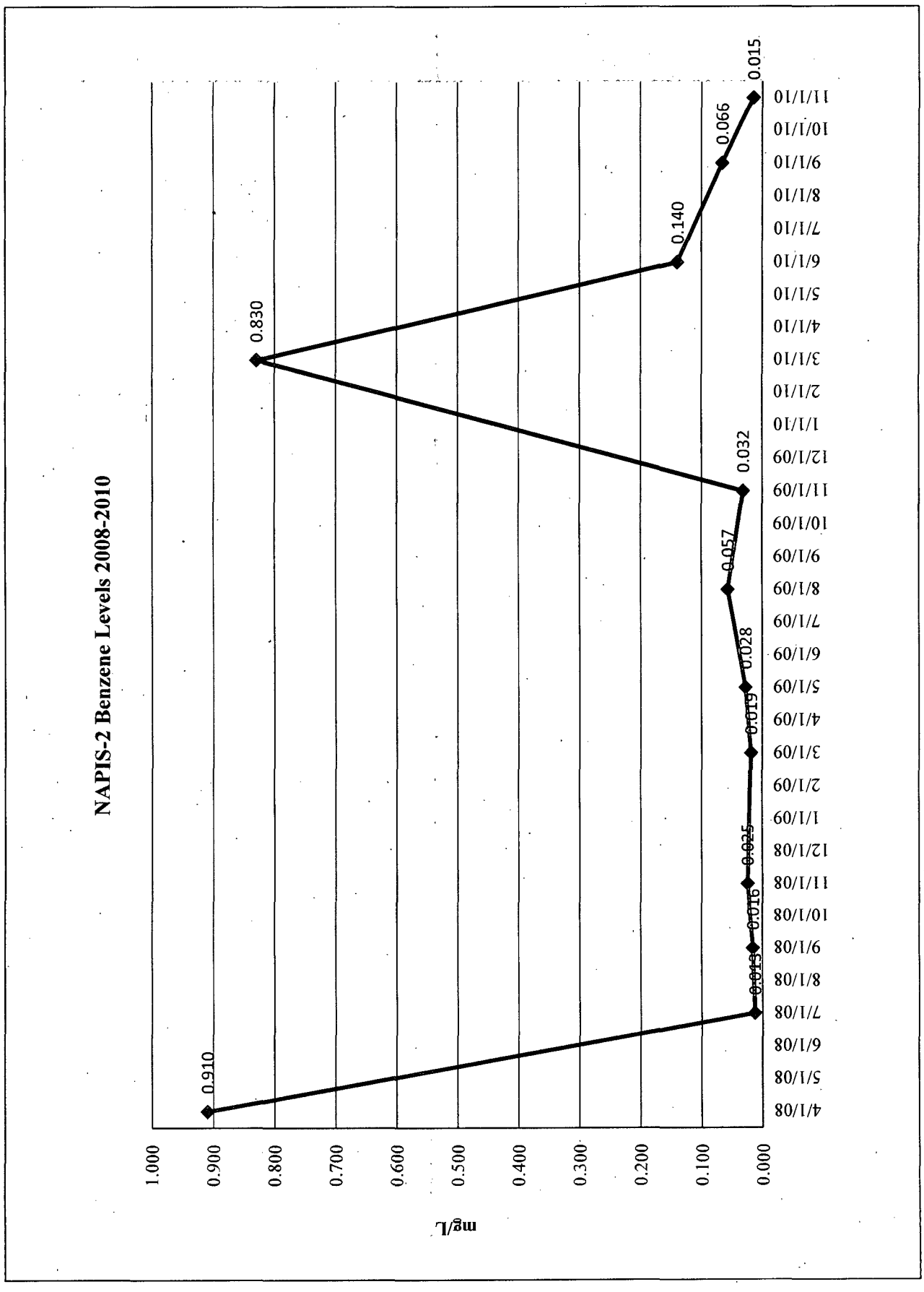


Graph 3: GWM-1 Chloride Levels



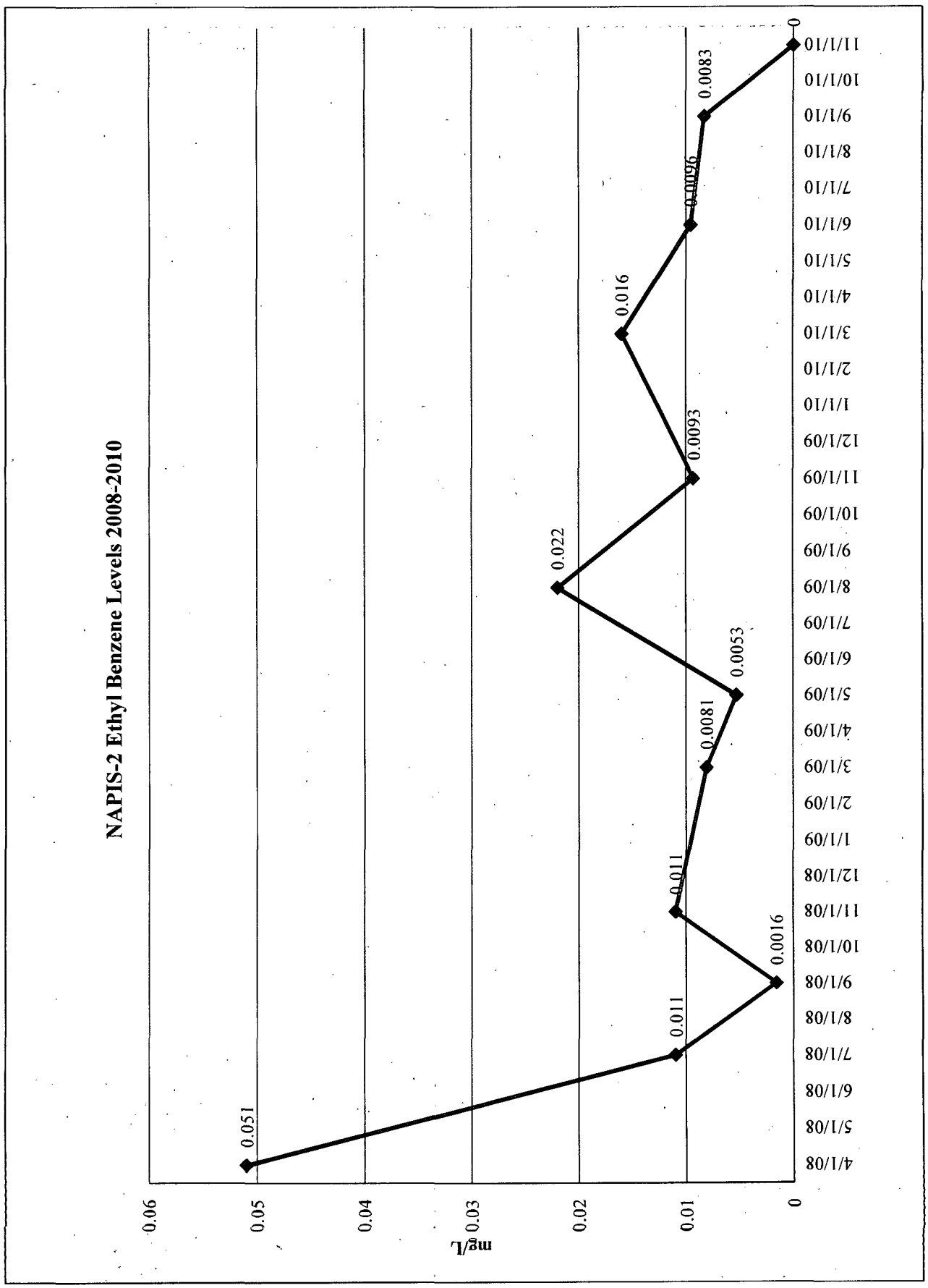
Graph 4: GWM-1 Arsenic Levels

11.0 GRAPHS

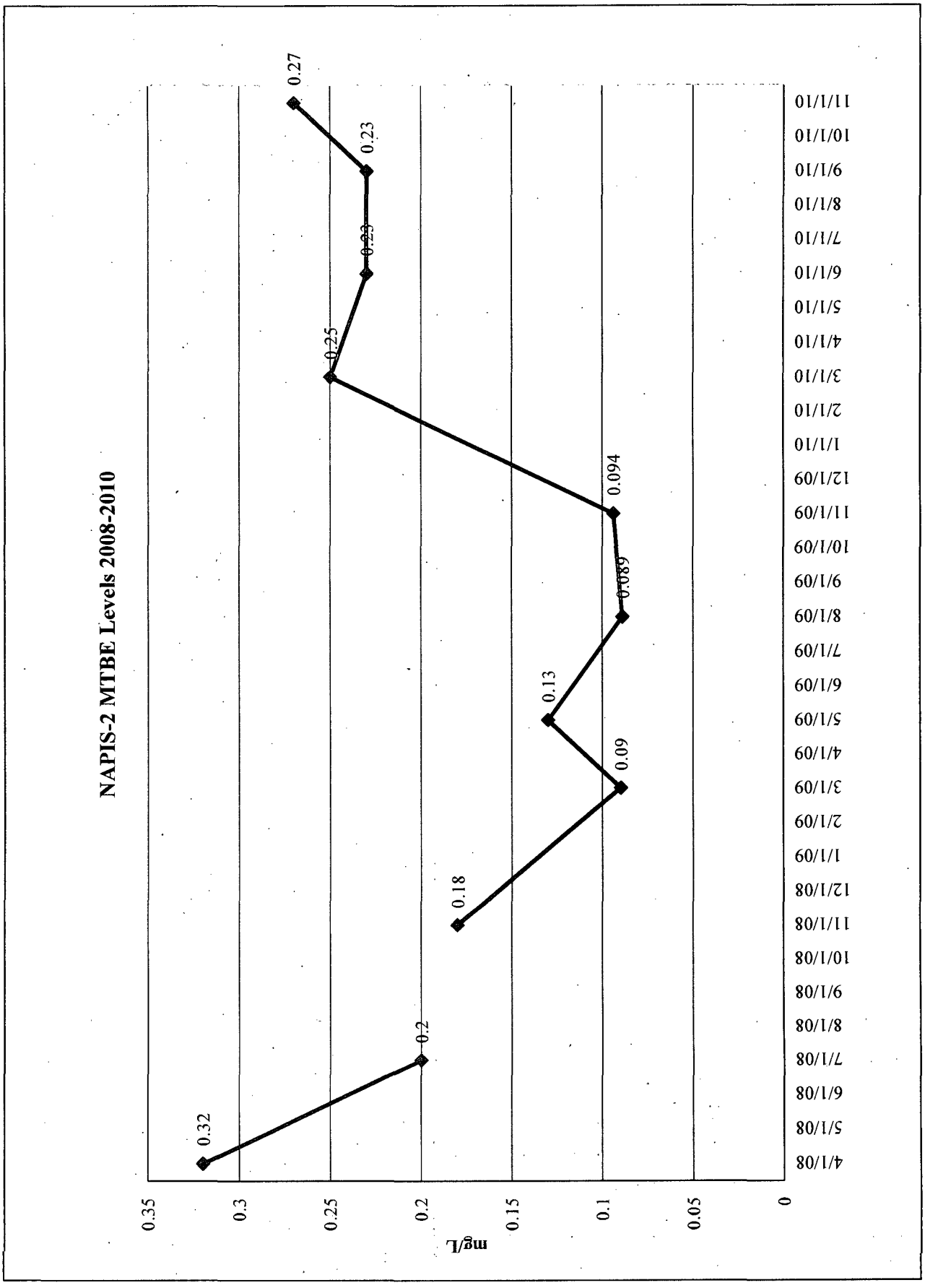


Graph 5: NAPIS-2 Benzene Levels

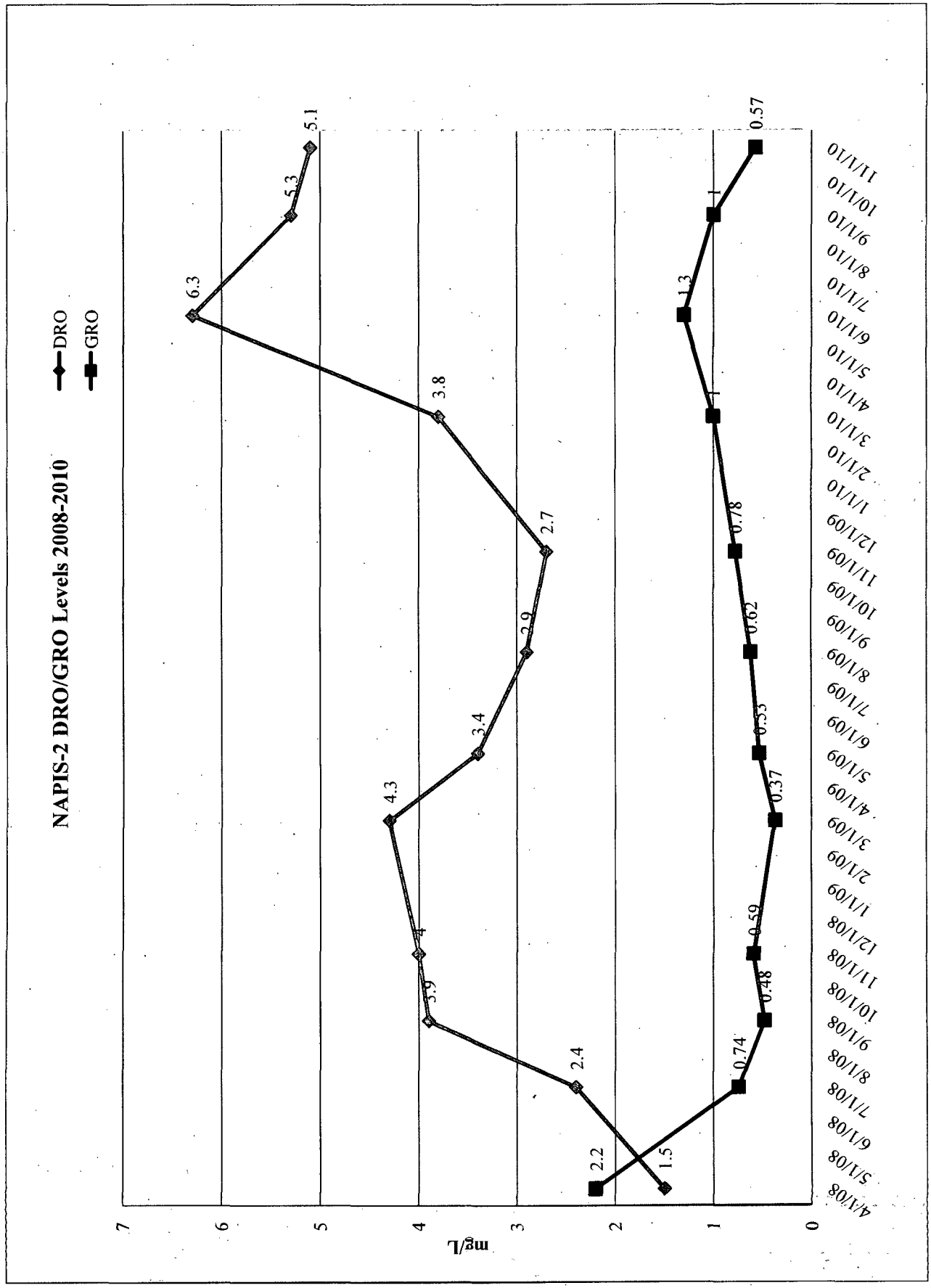
11.0 GRAPHS



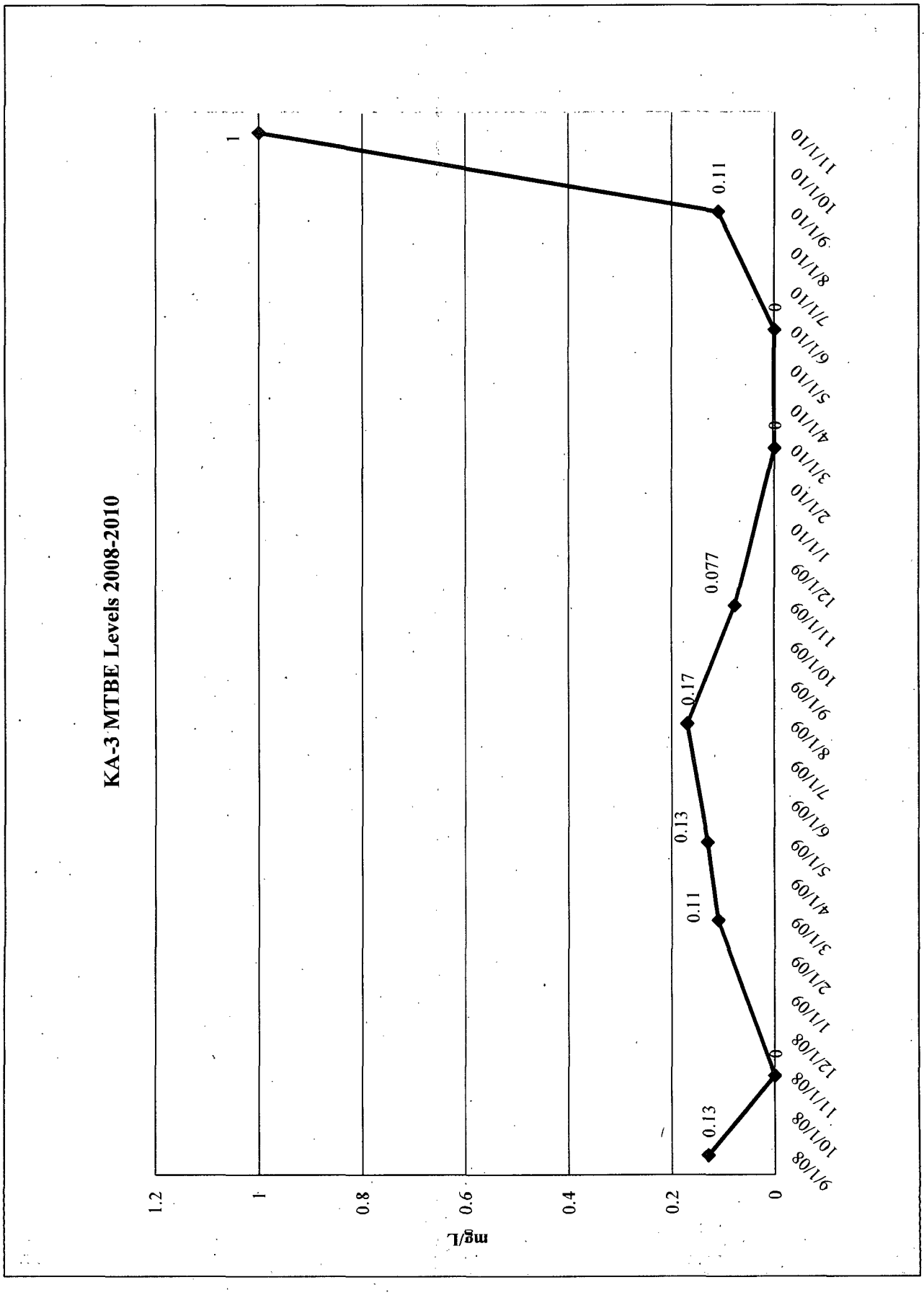
Graph 6: NAPIS-2 Ethyl Benzene Levels



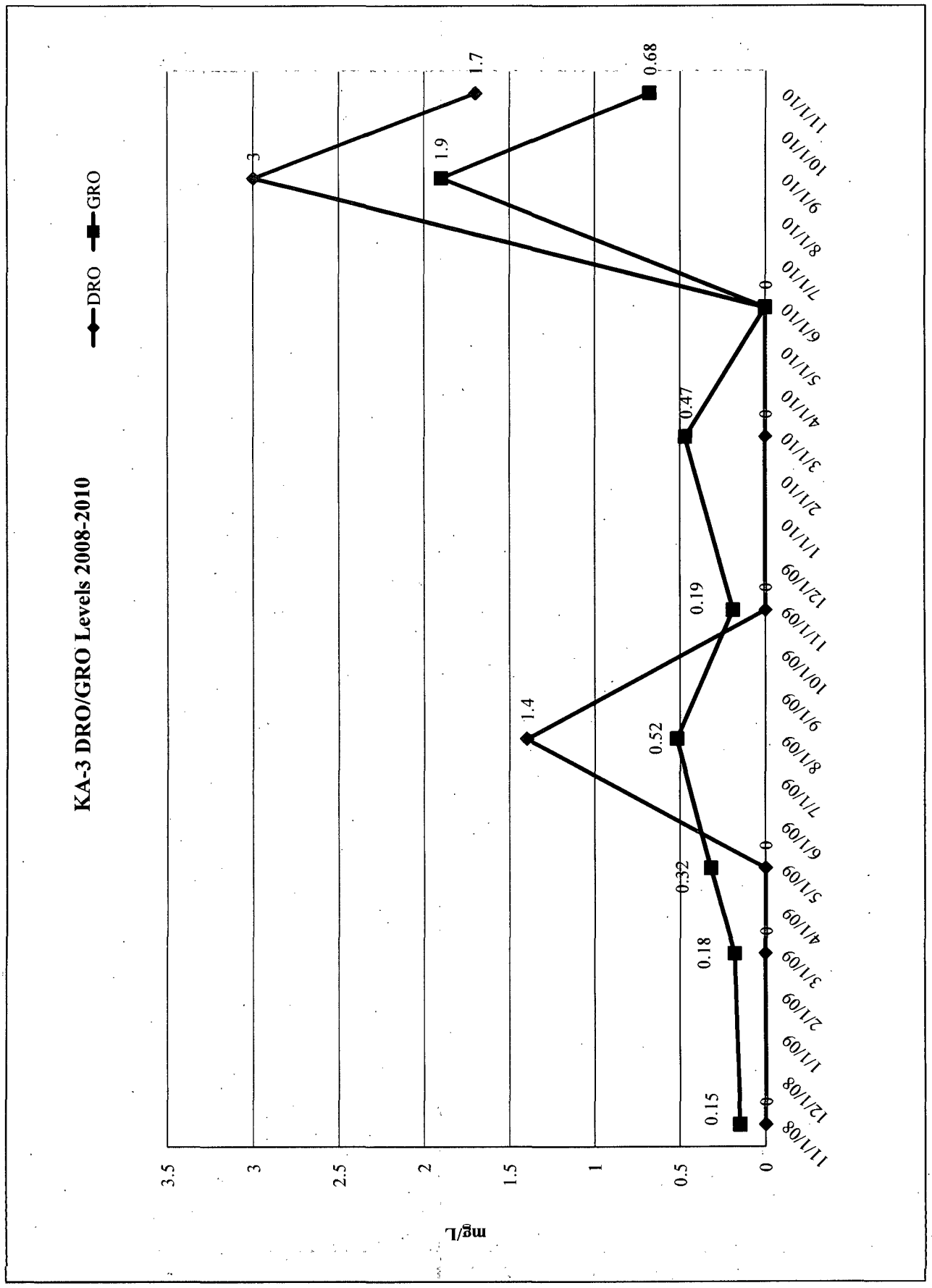
Graph 7: NAPIS-2 MTBE Levels



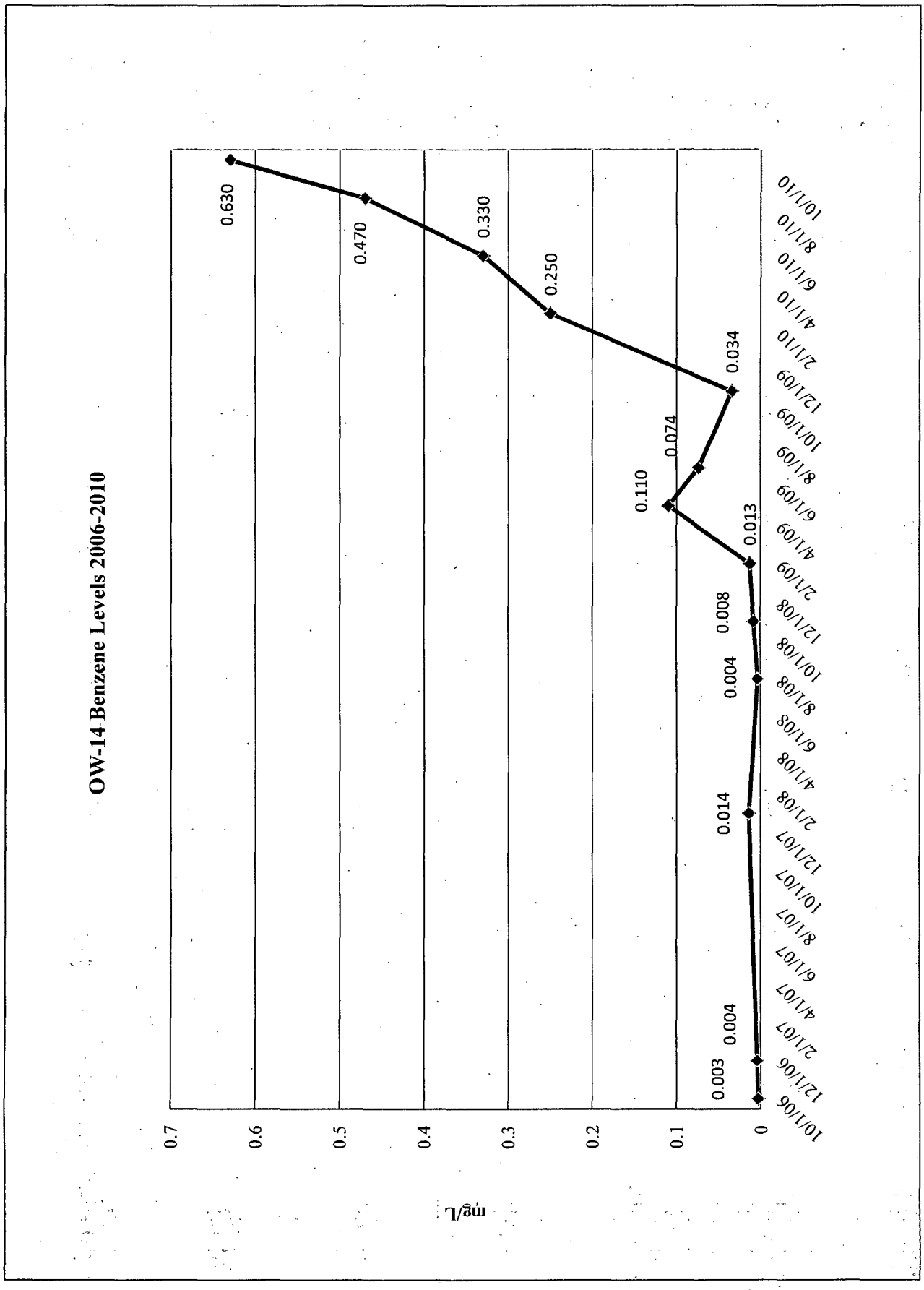
Graph 8: NAPIS-2 DRO/GRO Levels



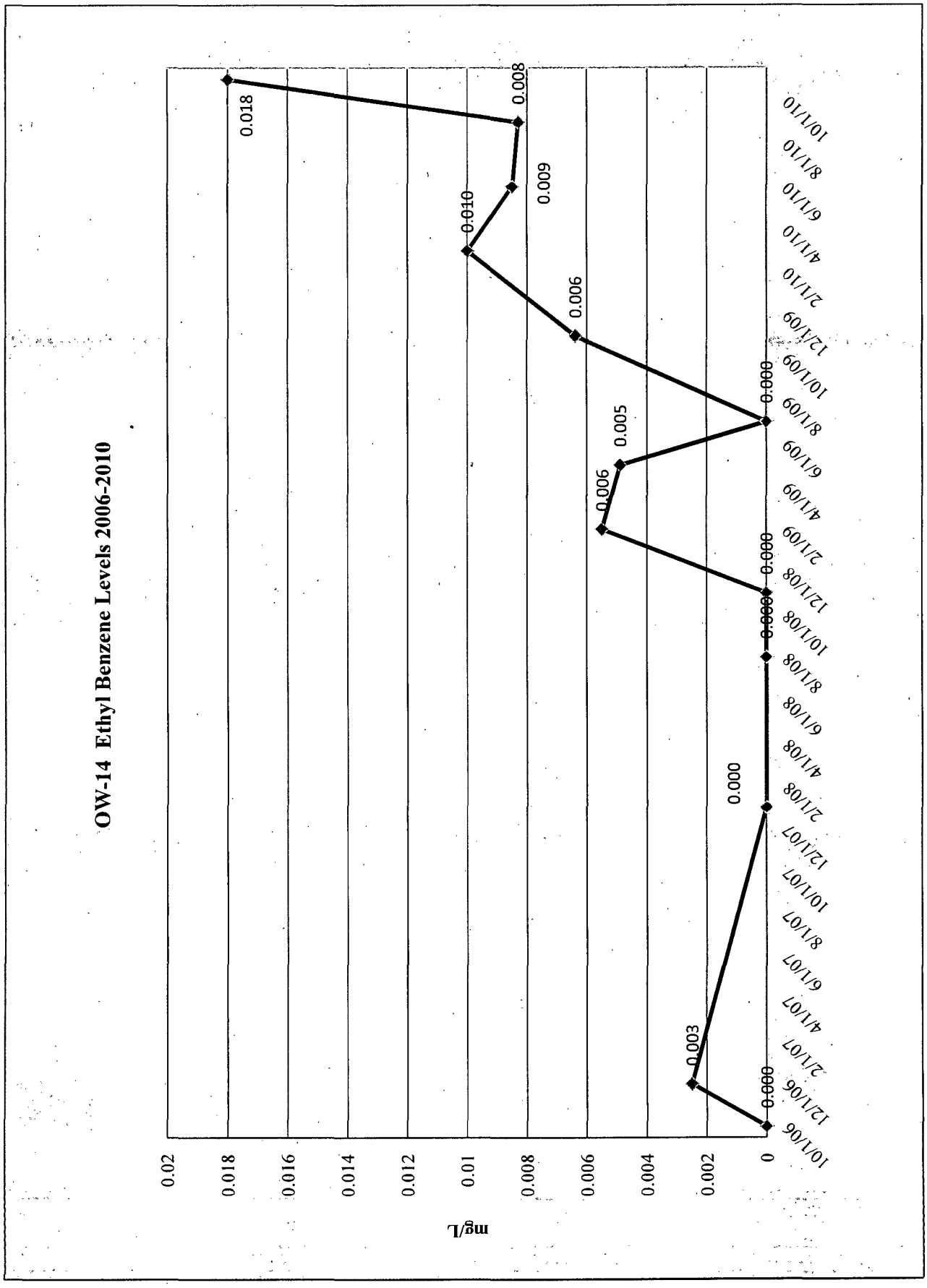
Graph 9: KA-3 MTBE Levels



Graph 10: KA-3 DRO/GRO Levels

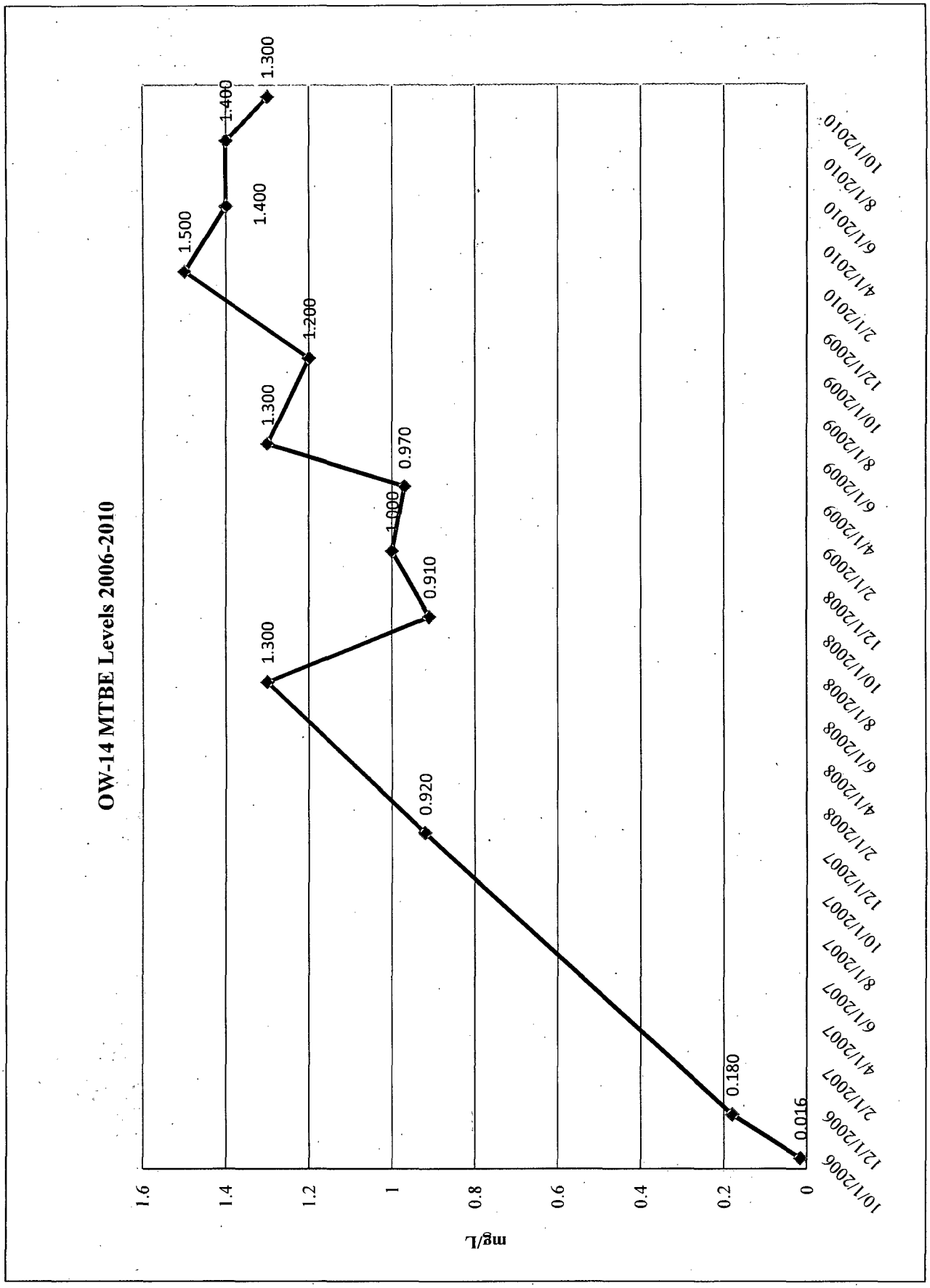


Graph 11: OW-14 Benzene Levels



Graph 12: OW-14 Ethyl Benzene Levels

11.0 GRAPHS



Graph 13: OW-14 MTBE Levels

ATTACHMENTS FOR

APPENDIX A

RW-1 HYDROCARBON RECOVERY LOG
Western Refining - Gallup Refinery
2/22/05 thru 11/3/10

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level (ft)	Product Bailed/Purged (gal)	Water Purged (gal)
2/22/2005	8:30	1st	NR	Start	32.46	36.5	4.04	14	NR
3/2/2005	7:45	1st	NR	Start	32.42	36.44	4.02	9	NR
3/8/2005	8:30	1st	NR	Start	31.92	36.35	4.43	15	NR
3/9/2005	830	1st	NR	Start	31.92	37.5	5.58	4	NR
3/11 to 3/18/05	NR	1st	NR	Start	NR	NR	NR	74	NR
3/18 to 3/23/05	NR	1st	Pump	Continue pumping	NR	NR	NR	48	NR
3/23 to 4/1/05	NR	1st	Pump	Continue pumping	NR	NR	NR	62	NR
4/1 To 4/4/05		2nd	Pump	Pump shutdown to measure	NR	NR	NR	27	NR
4/5/2005	11:30	2nd	Pump		34.75	38.92	4.17	NR	NR
4/4 to 4/15/05	11:00	2nd	Pump	Continue pumping	NR	NR	NR	50	NR
4-15 to 5-5-05	12:30	2nd	Pump	Continue pumping	NR	NR	NR	45	154
5-5 to 6-17-05	11:30	2nd	Pump	Continue pumping	NR	NR	NR	24	196
6/27/2005	14:30	2nd		Pump shutdown to measure	NR	NR	NR	NR	NR
6/28/2005	11:30	2nd			32.46	33.25	33	NR	NR
6/28/2005		2nd	Pump	Continue pumping	NR	NR	NR	NR	NR
6/17 to 7/8/2005	10:30	2nd	Pump	Continue pumping	NR	NR	NR	18	146
7/8 to 8/9/2005	13:30	3rd	Pump	Continue pumping	NR	NR	NR	28	350
8/9 to 9/16/2005	11:35	3rd			36.46	36.54	0.08	8	240
12/5/2005	13:15	4th			31.92	34.71	2.79	NR	NR
12/8/2005	14:00	4th	Pump	Start	NR	NR	NR	NR	NR
12/22/2005	15:30	4th		stop	NR	NR	NR	5	120
12/29/2005	14:00	4th	Bailer	Hand bailed	NR	NR	NR	0.5	4.5
3/16/2006	13:00	1st.			NR	NR	NR	NR	NR
3/16/2006	14:30	1st.	Pump	Start	32.23	34.48	2.25	NR	NR
3/23/2006	14:30	1st.		Stop	NR	NR	NR	NR	NR
3/27/2006	15:30	1st.	Pump	Start	NR	NR	NR	NR	NR
3/31/2006	11:30	1st.	Pump	Continue pumping	NR	NR	NR	7	174
4/3/2006	11:30	2nd		Stop	NR	NR	NR	1	38
4/4/2006	11:00	2nd			32.75	33.08	0.33	NR	NR
6/6/2006	13:00	2nd			32.39	34.54	2.15	NR	NR

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level (ft)	Product Bailed/Purged (gal)	Water Purged (gal)
6/8/2006	15:00	2nd	Pump	Start	NR	NR	NR	NR	NR
6/29/2006	10:00	2nd		Stop	NR	NR	NR	8	365
7/31/2006	11:45	3rd			33.06	33.48	0.42	NR	NR
7/31/2006	11:45	3rd	Pump	Start pump	NR	NR	NR	NR	NR
8/3/2006	14:20	3rd		Stopped pump	NR	NR	NR	2	87
8/8/2006	9:00	3rd	Pump	Start pump	NR	NR	NR	NR	NR
8/10/2006	15:30	3rd	Pump	Start pump	NR	NR	NR	NR	NR
8/22/2006	9:00	3rd		Stopped. Pulled pump	NR	NR	NR	4.9	373
8/22/2006	9:45	3rd	Pump	Start pump	33.1	33.4	0.3	NR	NR
12/21/2006	15:55	4th	Pump	Start pump	35.2	36	0.8	0.62	70
2/21/2007	10:15	1st.	Pump	Start pump	33.42	34.6	1.18	0.63	53.5
6/5/2007	10:00	2nd		Compressor Down	32.42	32.71	0.29	NR	NR
6/5/2007	10:10	2nd		Hand Bailed	NR	NR	NR	0.05	9
6/6/2007	8:40	2nd		Hand bailed	NR	NR	NR	0.1	11
6/13/2007	14:00	2nd		Hand bailed	NR	NR	NR	0.1	12
6/14/2007	10:40	2nd		Hand bailed	NR	NR	NR	0.05	8
7/10/2007	10:08	3rd		Hand bailed	32.42	32.71	0.29	0.3	18
7/11/2007	9:25	3rd		Hand bailed	NR	NR	NR	0.21	NR
7/23/2007	10:00	3rd		Hand bailed	NR	NR	NR	0.1	NR
11/26/2007	10:50	4th		Hand bailed	30.76	36.45	5.69	0.18	37
2/18/2008	15:32	1st.		Hand Bailed - pump frozen	30.18	34.77	4.59	1.66	36
5/21/2008	14:10	2nd	Pump	Used Pump	30.33	34.57	4.24	1.39	51
9/12/2008[1]	14:30	3rd		Bladder pump malfunctioned	30.03	34.59	4.56	Not Bailed	
11/13/2008	13:00	4th	Pump	Used Pump	30.02	34.63	4.61	0.94	65
2/11/2009	14:05	1st.	Pump	Used Pump	30.21	31.72	1.51	0.29	90
5/5/2009	11:30	2nd	Pump	Used Pump	30.22	30.8	0.58	0.41	76
8/10/2009	9:22	3rd	Pump	Used Pump	30.69	31.02	0.33	0.89	98
10/28/2009	10:55	4th	Pump	Used Pump	30.56	30.75	0.19	0.19	74
3/3/2010	9:00	1st	Pump	Used Pump	30.89	31.05	0.16	0.21	31
6/3/2010	13:10	2nd	Pump	Used Pump	30.99	31.09	0.1	0.1	32
9/20/2010	14:00	3rd	Pump	Used Pump	29.91	30.06	0.15	0.25	34
11/3/2010	9:10	4th	Pump	Used Pump	30.89	31.01	0.12	0.1	31
3/9/2011	10:19	1st	Pump	Used Pump	30.04	30.15	0.11	0.12	40
6/27/2011	8:05	2nd	Pump	Used Pump	30.52	30.63	0.11	0.1	45

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level (ft)	Product Bailed/Purged (gal)	Water Purged (gal)
10/3/2011	15:07	Annual	Pump	Used Pump	30.81	30.9	0.09	0.11	42
11/8/2011	8:30	4th	Pump	Used Pump	30.77	30.85	0.08	0.09	38

NOTES:
FT = Feet
Gal = Gallon
NR = Not Recorded
[1] Tried to start bladder pump and found that pump diaphragm was torn. Pump non-repairable. Ordered new pump

RW-5 HYDROCARBON RECOVERY LOG
Western Refining - Gallup Refinery
2/22/05 thru 11/3/10

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level (ft)	Product Bailed/Purged (gal)	Water Purged (gal)
2/22/2005	14:15	1st	Bailer	Start	32.92	34.01	1.09	4.5	NR
3/3/2005	14:00	1st	Bailer	Start	33.08	33.42	0.34	6	NR
6/24/2005	9:00	2nd	Bailer	Start	32.96	34.04	1.08	2.5	NR
9/16/2005	9:20	3rd	Bailer	Start	32.83	33.85	1.02	2.5	NR
12/5/2005	14:00	4th	Bailer	Start	32.52	33.21	0.69	1.5	NR
3/16/2006	14:50	1st	Bailer	Start	32.58	33	0.42	1	NR
7/26/2006	14:35	2nd	Bailer	Start	32.9	33.31	0.41	0.5	NR
10/16/2006	09:15	4th	Bailer	Start	32.73	33.42	0.69	0.25	NR
2/13/2007	09:00	1st	Bailer	Start	32.17	33.95	1.78	0.5	NR
4/30/2007	11:20	2nd	Bailer	Start	33	33.83	0.83	2.5	NR
7/10/2007	10:15	3rd	Bailer	Start	33.1	33.92	0.82	2.5	NR
11/26/2007	08:00	4th	Bailer	Start	33.01	33.91	0.9	1.75	NR
2/18/2008	15:15	1st	Bailer	Start	33.19	33.95	0.76	0.19	20
5/21/2008	14:20	2nd	Bailer	Start	32.77	33.84	1.07	0.14	18
9/12/2008	14:30	3rd	Bailer	Start	32.62	32.85	0.23	0.05	15
11/3/2008	14:00	4th	Bailer	Start	31.05	32.34	1.29	0.05	15
2/11/2009	13:40	1st	Bailer	Start	32.08	32.15	0.07	0.05	15
5/5/2009	10:02	2nd	Bailer	Start	0	31.91	0	0	0
8/10/2009	9:50	3rd	Bailer	Start	0	31.94	0	0	0
10/28/2009	10:45	4th	Bailer	Start	0	31.71	0	0	0
3/3/2010	9:35	1st	Bailer	Start	0	31.63	0	0	0
6/3/2010	13:40	2nd	Bailer	Start	0	31.37	0	0	0
9/20/2010	14:24	3rd	Bailer	Start	0	31.94	0	0	0
11/3/2010	9:30	4th	Bailer	Start	0	31.94	0	0	0

NOTES:
FT = Feet
Gal = Gallon
NR = Not Recorded

RW-6 HYDROCARBON RECOVERY LOG
Western Refining - Gallup Refinery
2/22/05 thru 11/3/10

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level (ft)	Product Bailed/Purged (gal)	Water Purged (gal)
2/22/2005	14:30	1st	Bailer	Start	33.12	34.5	1.38	4.5	NR
3/3/2005	14:00	2nd	Bailer	Start	33.15	34	0.85	6	NR
6/24/2005	11:00	2nd	Bailer	Start	33.31	34.46	1.15	3.5	NR
9/16/2005	10:20	3rd	Bailer	Start	32.98	34.33	1.35	3	NR
3/16/2006	12:45	1st	Bailer	Start	32.67	33.75	1.08	2.5	NR
7/26/2006	15:00	2nd	Bailer	Start	33	34.12	1.12	1.5	NR
10/16/2006	09:55	4th	Bailer	Start	33.71	34.63	0.92	0.75	NR
2/13/2007	09:50	1st	Bailer	Start	33.29	34.5	1.21	0.75	NR
4/30/2007	11:25	2nd	Bailer	Start	34.42	34.58	0.16	0.25	NR
7/10/2007	10:08	3rd	Bailer	Start	33.29	34.58	1.29	6.78	NR
11/28/2007	08:10	4th	Bailer	Start	33.25	34.47	1.22	4.5	NR
2/18/2008	15:11	1st	Bailer	Start	33.44	34.35	0.91	0.11	20
5/21/2008	14:30	2nd	Bailer	Start	33.02	34.12	1.1	0.13	18
9/12/2008	14:35	3rd	Bailer	Start	32.12	32.83	0.71	0.09	15
11/3/2008	14:35	4th	Bailer	Start	32.46	32.69	0.23	0.04	15
2/11/2009	13:30	1st	Bailer	Start	32.19	32.35	0.16	0.12	15
5/5/2009	9:45	2nd	Bailer	Start	32.08	32.26	0.18	0.04	15
8/10/2009	9:55	3rd	Bailer	Start	32.04	32.28	0.24	0.03	15
10/28/2009	10:55	4th	Bailer	Start	31.81	32.03	0.22	0.03	12
3/3/2010	9:40	1st	Bailer	Start	31.78	32.01	0.23	0.05	15
6/3/2010	13:45	2nd	Bailer	Start	31.61	31.7	0.09	0.05	15
9/20/2010	14:30	3rd	Bailer	Start	32.04	32.28	0.24	0.03	15
11/3/2010	9:35	4th	Bailer	Start	32.01	32.1	0.09	0.02	15

NOTES:
FT - Feet
Gal - Gallon
NR: Not Recorded

Summary of Total Product Removed and Total Water Purged per yer from Recovery Wells (RW-1, RW-2 and RW-3)
1995 thu 2010

RW-1

Year	Product Bailed/Purged (gal)	Water Purged (gal)
2005	431.5	1210.5
2006	23.52	1107
2007	1.72	148.5
2008	3.99	152
2009	1.78	338
2010	0.66	128
TOTAL	**463.17**	**3084**

RW-5

Year	Product Bailed/Purged (gal)	Water Purged (gal)
2005	17	NA
2006	1.75	NA
2007	7.25	NA
2008	0.43	68
2009	0.05	15
2010	0	0
TOTAL	**26.48**	**83**

RW-6

Year	Product Bailed/Purged (gal)	Water Purged (gal)
2005	17	NA
2006	4.75	NA
2007	12.28	NA
2008	0.37	68
2009	22	57
2010	0.15	60
TOTAL	**56.55**	**185**

NOTES:
NA = Not Available

ATTACHMENTS FOR

APPENDIX C

WESTERN REFINING - GALLUP REFINERY
ANNUAL WELL SAMPLING LOGS - 2010

WELL #BW-2A	
GAUGE DATE	7/20/2010
GAUGE TIME	1200 hrs
DTB (feet)	
Depth to Bottom	65.50
DEDICATED PUMP	Y
DTW (feet)	
Depth to Water	32.15
DTB - DTW	33.35
1 Well Volume	0.163
3 Well Volumes	16.31
PURGE DATE	7/20/2010
PURGE TIME	
SAMPLE DAY	7/20/2010
SAMPLE TIME	1218 hrs
PUMP DEPTH DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1209	8.09	13.1	1.046	0.880	0.680	2.00	-112
(2)	1211	8.06	13.4	1.052	0.879	0.680	1.30	-143
(3)	1213	8.05	13.4	1.053	0.880	0.680	1.10	-151
(4)	1215	8.05	13.5	1.057	0.880	0.680	0.80	-157

WEATHER CONDITIONS

Cloudy, slight breeze 5-10 mph. Temp 95-100 deg F.
Attendee: Cheryl Johnson

WATER APPEARANCE

Clear - no odor detected.

SAMPLE LOG

Original samples were shipped federal express overnight on 7-15-10. Federal express was unable to locate the cooler. I waited until Monday 7-19-10 to check if samples were delivered. No show. Well re-sampled on 7-20-10.

ATTACHMENTS FOR

APPENDIX F

DePauli Engineering
& Surveying, LLC.
Civil Engineers and Land Surveyors

Phone: 505-863-5440 • Fax: 505-863-1919 • des@cnetco.com
102 W. Hill Avenue • Gallup, NM 87301
PO Box 876 • Gallup, NM 87305

April 12, 2012

Mr. Ed Riege, Environmental Manager
Western Refining-Gallup Refinery
Route 3 Box 7
Gallup, NM 87301

Re: Survey Gallup Refinery Monitoring Wells-Amendment

Dear Mr. Riege:

This Letter is in response to your request to amend our survey to include a report describing the work performed and to provide a table that includes all the survey points.

DePauli Engineering & Surveying, LLC completed the survey of the monitoring wells at Western Refining-Gallup Refinery on June 7, 2011. A total of 36 wells were surveyed. As requested, the wells were surveyed for the following parameter: ground level elevation, ground level elevation inside steel sleeve, center steel lid elevation, well casing rim elevation and corresponding measuring point description associated with each elevation. Survey conducted enlisted NM Surveyor in Training and a Technician from DePauli Engineering Surveying and one Gallup Refinery representative to assist with the location of the wells.

The instruments used to complete the survey consisted of a Leica 1200 GPS (Global Positing System) Base and Rover GPS. The method used to survey the wells was Real-time Kinematic GPS Surveying (RTK). RTK Surveying requires that two or more receivers be operated simultaneously. The aspect of the procedure is a radio used to transmit a signal with corrections and observations to the roving receiver. The base (reference) station is a known position that produces the correction and the signal received by the Rover thence giving the Rover observation corrected valves.

The horizontal and vertical positions of the top of the PVC casing (unless otherwise noted) and the vertical positions for the lid, ground elevation inside the steel casing, and the surrounding ground elevation is shown on the attached sheet labeled "Western Refining Monitoring Well 2011." The horizontal position is NAD 83 datum and the vertical positions are NGVD 1929. The description was revised to indicate location of survey point. (Revised 11/30/11). Elevation were taken using the concrete pad surrounding each well and locations noted on the report. Ground elevation was taken using the concrete pad surrounding each well

and locations shown on the report. In GWM-3 and BW-1B monitoring wells, the ground elevation was from the lowest point on the concrete pad surrounding the well and note referenced on the report. If there are no existing marks on the well casing the locations (descriptions) for each well is described in the report from where the measurement was determined. In OW-1 monitoring well, the top segment of the PVC casing was not connected to the coupling inside the casing. The elevation referenced in this well was taken from the top segment of the coupling inside the casing and noted on the report.

DePauli Engineering & Surveying LLC has also prepared a table which incorporates all the measurements taken from the survey, entitled "Table 1-2011 Western Refining Monitoring Well Survey." Gallup Refinery field Representative verified the casing diameter using a tape measure and also the total well depth was verified by Western Refining which is noted in Table 1.

The requested survey was complete on June 7, 2011 and in accordance with sections 500.1 through 500.12 of the Regulations and Rules of the Board of Registration for Professional Engineers and Surveyors Minimum Standards for Surveying in New Mexico; which horizontal positions were measured to the nearest 0.1-ft and vertical elevations were measured to an accuracy of 0.01-ft.

If you have any questions concerning this survey please do not hesitate to contact our office.

Sincerely,

Marc DePauli

Marc DePauli, PE/PS

Western Refining Monitoring Well 2011

Well #	Northing	Easting		Elevation	Description
napis-1	1,634,587.37	2,545,700.47		6913.86	North edge PVC casing
				6914.23	Center steel lid
				6913.56	South side ground elev. inside steel sleeve
				6913.62	North East & South West corner of concrete pad
napis-3	1,634,589.71	2,545,645.25		6912.76	North edge PVC casing
				6913.12	Center steel lid
				6912.53	South side ground elev. inside steel sleeve
				6913.38	North East & South West corner of concrete pad
ka-3	1,634,583.87	2,545,645.66		6912.52	North edge PVC casing
				6912.87	Center steel lid
				6912.20	South side ground elev. inside steel sleeve
				6913.29	North West & South East corner of concrete pad
napis-2	1,634,564.93	2,545,647.46		6912.65	North edge PVC casing
				6913.26	Center steel lid
				6912.54	South side ground elev. inside steel sleeve
				6913.41	North West & South East corner of concrete pad
gwm-2	1,634,680.33	2,545,348.57		6913.09	North edge PVC casing
				6913.39	Center steel lid
				6908.05	West side ground elev. inside steel sleeve
				6910.32	South West & South East corner of concrete pad
gwm-1	1,634,686.36	2,545,346.90		6912.61	North edge PVC casing
				6912.93	Center steel lid
				6908.36	West side ground elev. inside steel sleeve
				6910.22	South West & North East corner of concrete pad
gwm-3	1,634,932.99	2,545,364.09		6910.25	North edge PVC casing
				6910.51	Center steel lid
				6905.48	West side ground elev. inside steel sleeve
			**	6907.35	Ground elev.
			** Elevation is to the lowest concrete pad elevation surounding the well		
ow-12	1,635,128.64	2,546,062.41		6940.69	North edge PVC casing
				6941.59	Center steel lid
				6939.04	West side ground elev. inside steel sleeve
				6939.57	South West & North East corner of concrete pad

Well #	Northing	Easting	Elevation	Description
rw-5	1,634,761.32	2,546,311.24	6943.57	West edge PVC casing **
			6943.78	Center steel lid
			6940.82	West side ground elev. inside steel sleeve
			6941.53	South West & North East corner of concrete pad
				**Exsiting mark on west edge of PVC casing used
rw-6	1,634,688.45	2,546,381.03	6944.01	North edge PVC casing
			6944.26	Center steel lid
			6941.49	West side ground elev. inside steel sleeve
			6941.96	North West & South East corner of concrete pad
rw-2	1,634,624.56	2,547,167.32	6928.53	North edge PVC casing
			6929.29	Center steel lid
			6925.02	West side ground elev. inside steel sleeve
			6926.40	North West & South East corner of concrete pad
rw-1	1,634,179.63	2,547,362.39	6946.06	North edge PVC casing
			6946.42	Center steel lid
			6941.25	West side ground elev. inside steel sleeve
			6942.86	Surrounding South ground elev.
ow-10	1,633,507.94	2,544,187.82	6874.91	North edge PVC casing
			6875.39	Center steel lid
			6872.59	West side ground elev. inside steel sleeve
			6873.67	South West & North East corner of concrete pad
ow-1	1,634,052.94	2,542,464.15	6866.62	North edge PVC Casing**
			6868.83	Center steel lid
			6866.44	West side ground elev. inside steel sleeve
			6866.32	North West & South East corner of concrete pad
	** Top segment of pvc casing not connected to coupling, coupling is were elevation is referenced.			
mw-4	1,635,127.10	2,544,509.90	6881.63	North edge PVC casing
			6882.38	Center steel lid
			6879.34	West side ground elev. inside steel sleeve
			6879.89	South West & North East corner of concrete pad
smw-2	1,635,652.32	2,544,450.91	6883.97	North edge Aluminum casing
			6884.54	Center steel lid
			6879.07	West side ground elev. inside steel sleeve
			6881.63	South West & North East corner of concrete pad

Well #	Northing	Easting	Elevation	Description
mw-5	1,636,272.55	2,544,141.37	6882.83	North edge Aluminum casing
			6883.40	Center steel lid
			6881.77	South side ground elev. inside steel sleeve
			6880.20	North West & South West corner of concrete pad
mw-2	1,636,243.70	2,543,943.74	6880.30	North edge PVC Casing
			6880.57	Center steel lid
			6878.41	North side ground elev. inside steel sleeve
			6878.39	North West & South East corner of concrete pad
smw-4	1,636,213.12	2,543,883.04	6879.52	North edge PVC casing
			6880.63	Center steel lid
			6875.72	West side ground elev. inside steel sleeve
			6877.63	South West & North East corner of concrete pad
mw-1	1,636,171.89	2,543,811.84	6878.12	North edge PVC casing
			6878.85	Center steel lid
			6876.79	West side ground elev. inside steel sleeve
			6876.63	South West & North East corner of concrete pad
bw-3b	1,637,028.25	2,543,362.30	6878.59	North edge PVC casing
			6878.92	Center steel lid
			6875.41	West side ground elev. inside steel sleeve
			6876.16	North West & South East corner of concrete pad
bw-3a	1,637,035.46	2,543,363.75	6878.09	North edge PVC casing
			6878.39	Center steel lid
			6875.08	West side ground elev. inside steel sleeve
			6875.94	North West & South East corner of concrete pad
bw-3c	1,637,038.21	2,543,356.75	6877.95	North edge PVC casing
			6878.22	Center steel lid
			6875.27	West side ground elev. inside steel sleeve
			6875.72	North West & South East corner of concrete pad
bw-2c	1,636,859.87	2,542,467.18	6875.30	North edge PVC casing
			6875.78	Center steel lid
			6872.02	West side ground elev. inside steel sleeve
			6872.90	South West & South East corner of concrete pad

Well #	Northing	Easting	Elevation	Description
bw-2a	1,636,848.27	2,542,473.25	6874.69	North edge PVC casing
			6875.20	Center steel lid
			6870.45	West side ground elev. inside steel sleeve
			6871.88	South West & South East corner of concrete pad
bw-2b	1,636,836.81	2,542,481.15	6874.50	North edge PVC casing
			6874.85	Center steel lid
			6870.06	West side ground elev. inside steel sleeve
			6871.66	South West & South East corner of concrete pad
bw-1a	1,635,367.32	2,542,393.40	6876.68	North edge PVC casing
			6877.09	Center steel lid
			6872.30	West side ground elev. inside steel sleeve
			6874.10	North West & South East corner of concrete pad
bw-1c	1,635,366.60	2,542,398.24	6876.78	North edge PVC casing
			6877.11	Center steel lid
			6872.28	West side ground elev. inside steel sleeve
			6873.95	South West & North East corner of concrete pad
bw-1b	1,635,368.46	2,542,404.18	6876.94	North edge PVC casing
			6877.28	Center steel lid
			6876.26	West side ground elev. inside steel sleeve
		**	6874.13	Ground elev.

** Elevation is to the lowest concrete pad elevation surounding the well

ow-50	1,636,295.73	2,547,393.72	6914.21	North edge PVC casing
			6914.47	Center steel lid
			6911.46	West side ground elev. inside steel sleeve
			6912.63	South West & North East corner of concrete pad
ow-52	1,636,497.52	2,546,917.71	6907.68	North edge PVC casing
			6908.28	Center steel lid
			6905.31	West side ground elev. inside steel sleeve
			6906.53	North West & South East corner of concrete pad
ow-29	1,635,940.11	2,547,227.40	6917.00	North edge PVC casing
			6917.25	Center steel lid
			6912.09	West side ground elev. inside steel sleeve
			6913.89	South West & North East corner of concrete pad

Well #	Northing	Easting	Elevation	Description
ow-30	1,635,431.14	2,547,552.67	6924.69	North edge PVC casing
			6924.96	Center steel lid
			6919.84	West side ground elev. inside steel sleeve
			6921.81	North West & South East corner of concrete pad
ow-14	1,635,059.64	2,547,178.60	6926.65	North edge PVC casing
			6927.71	Center steel lid
			6924.40	West side ground elev. inside steel sleeve
			6924.55	South West & North East corner of concrete pad
ow-13	1,635,445.53	2,546,668.91	6920.07	North edge PVC casing
			6920.23	Center steel lid
			6915.33	West side ground elev. inside steel sleeve
			6918.95	South West & North East corner of concrete pad
ow-11	1,632,247.50	2,546,078.73	6923.51	North edge PVC casing
			6923.97	Center steel lid
			6921.80	West side ground elev. inside steel sleeve
			6922.05	South West & North East corner of concrete pad

Notes:
1) Date of Survey: June 7, 2011
2) Instrument: Leica 1200 GPS - Base & Rover
3) The method used to survey the wells was GPS-RTK

The horizontal and vertical positions of the top of the PVC casing (unless otherwise noted) and the vertical positions for the lid, ground elevation inside the steel casing, and the surrounding ground elevation is shown above. The horizontal position are NAD 83 datum and the vertical positions are NGVD 1929. The description were revised to indicate location of survey point. (revised 11/30/2011)

Marc DePauli PS13606

11/30/2011
Date

ATTACHMENTS FOR

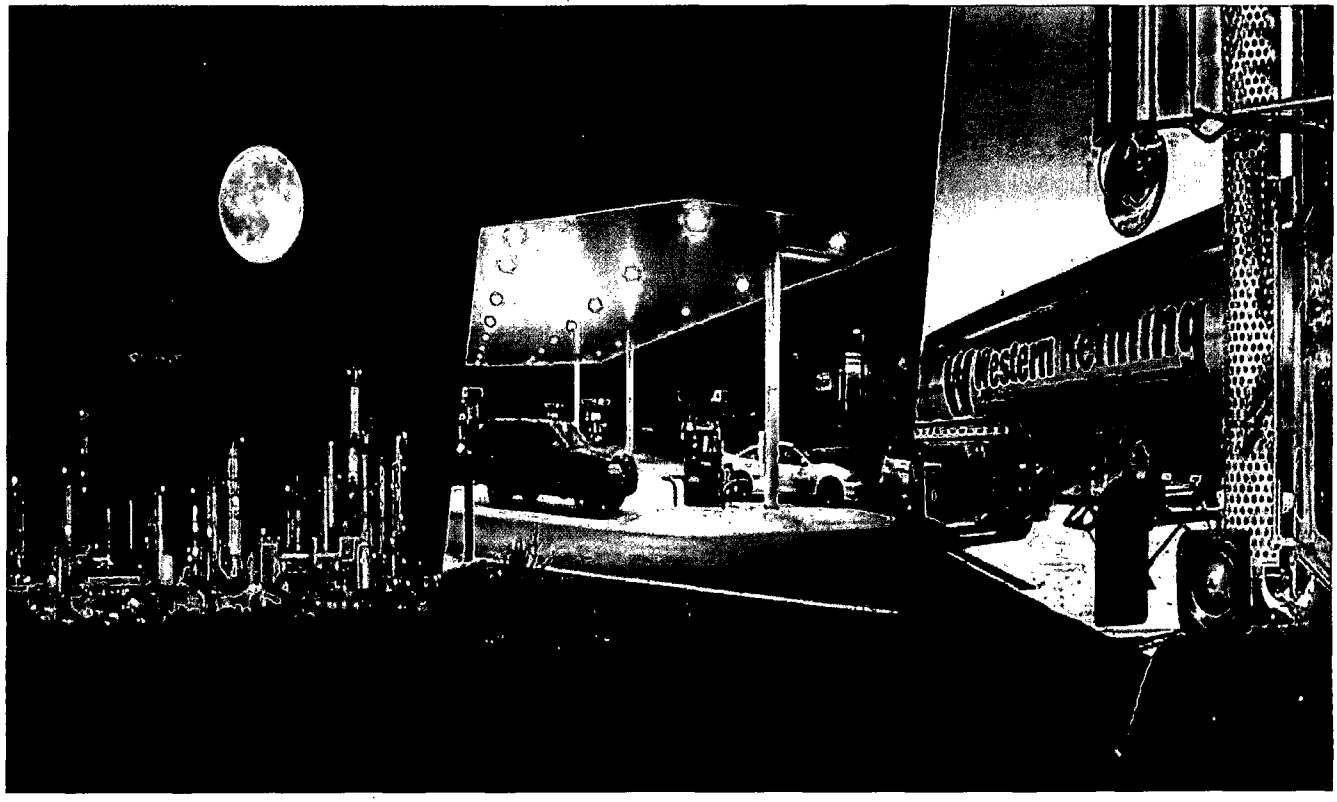
BINDER 2 & 3

BINDER 3 Appendix L
Hall Laboratory Analytical data
Sections 8.8 – 8.16

Annual Groundwater Monitoring Report:
Gallup Refinery - 2010
Revision 1

Western Refining
Gallup, New Mexico

July 12, 2011



BINDER 3 Appendix L
Hall Laboratory Analytical data
Sections 8.8 – 8.16

Annual Groundwater Monitoring Report: Gallup Refinery - 2010 Revision 1

Western Refining
Gallup, New Mexico

July 12, 2011

SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Phone (505) 476-6000 Fax (505) 476-6030
www.nmenv.state.nm.us

DAVE MARTIN
Secretary

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

April 11, 2012

Mr. Ed Riege
Environmental Superintendent
Western Refining, Southwest Inc., Gallup Refinery
Route 3, Box 7
Gallup, New Mexico 87301

RE: NOTICE OF DISAPROVAL
ANNUAL GROUNDWATER MONITORING REPORT:
GALLUP REFINERY 2010
WESTERN REFINING COMPANY, SOUTHWEST, INC., GALLUP REFINERY
HWB-WRG-11-004
EPA ID # NMD000333211

Dear Mr. Riege:

The New Mexico Environment Department (NMED) has completed its review of the *Annual Groundwater Monitoring Report: Gallup Refinery - 2010* (Report), dated August 31, 2011, submitted on behalf of Western Refining Company, Southwest Inc., Gallup Refinery (Permittee). NMED has reviewed the Report and hereby issues this Notice of Disapproval (NOD). The Permittee must address the following comments.

Comment 1

The Permittee did not incorporate direction included in NMED's comments regarding the previous year's report and continues to submit Groundwater Monitoring Reports that are difficult to review. There continues to be inconsistencies between the data presented in the tables and data included in the text. There is a lack of information in several sections of the Report and problems with the figures. The Permittee must submit a revised Report with all revisions

required by this letter as applicable. All changes required by this NOD must be applied to all future groundwater monitoring reports and work plans as applicable. Further noncompliance with NMED's direction may result in an enforcement action.

Comment 2

In the Executive Summary, paragraph 1, page 3, the Permittee states, "[m]onitoring activities conducted for 2010 followed the guidelines from the Facility Wide Ground Water Monitoring Plan [FWGWMP] (August 25, 2010)." The Permittee did not use the approved FWGWMP for all of the monitoring and sampling activities in 2010. Monitoring and sampling activities conducted for 2010 followed the guidelines from the 2009 FWGWMP for the first and second quarters while the third and fourth quarter monitoring and sampling activities were conducted with the 2010 FWGWMP (approved with modifications on August 25, 2010). Revise the Report to reflect that the 2010 field work was based on the two work plans at different times of the year.

Comment 3

In the Executive Summary, *East Side Ground Water*, page 3, the Permittee states, "[i]n three wells, OW-14, OW-29, and OW-30, [methyl tertiary butyl ether (MTBE)] is in the range of 0.12 ppm to 1.6 ppm and at levels above the EPA [Regional Screening Level (RSL)] standard of 0.012 ppm. In OW-13 trace levels of MTBE was detected in the first quarter of 2010 ranging from 0.0023 ppm first quarter to 0.0048 in the fourth quarter of 2010 which is below the EPA RSL standard of 0.012 ppm." In the revised Report, define all acronyms when introducing them for the first time or include a more extensive list of acronyms that defines each acronym used in the revised Report. In addition, all reported data values must include the appropriate units of measure.

Comment 4

In the Executive Summary, page 3, the title, *West Side Ground Water*, must be provided on the same page with its' corresponding text. If the title of a document section is the last line on the previous page, the Permittee must move the title of that section to the same page as the associated section text in future documents.

Comment 5

In the Executive Summary, *West Side Ground Water*, paragraph 2, page 4, the Permittee states, "PW-3 will continue to be sampled on an annual basis as directed in the Facility Wide Ground Water Report dated August 25, 2010." This reference is inaccurate; the Permittee is required to sample PW-3 by NMED's Comment 12 of the May 16, 2011 NOD (May 2011 NOD) for the

Annual Groundwater Monitoring Report: Gallup Refinery 2009. Revise the Report to accurately cite the correct document.

Comment 6

In the Table of Contents, page 5, the page numbers for the data tables from pages 103 through 160 are incorrect. The Permittee hand corrected pages 101 through 103 (with the following page corrected as "103a") and continued through page 108. In addition there are two pages with the page number 108. Revise the Report to provide correct page numbers. In future documents, the Permittee must ensure that all page numbers listed in the Table of Contents correspond to their associated sections, tables, and figures.

Comment 7

In the List of Figures in the Table of Contents, page 6, the font format is not consistent throughout the page. The font sizes are different and the page numbers do not correspond with the correct figures. In addition, "piezometric" is misspelled in the titles, "Figure 9: Sonsela Water-Pizeometric Surface" and "Figure 10: Chinle Group-Alluvium Interface Water-Pizeometric Surface." Revise the Report to correct these errors. Be consistent with formatting and review the Report for typographic and other errors prior to submittal.

Comment 8

The Appendices in the Table of Contents, page 7, states, "Binder 2,3 Appendix L Laboratory Analytical Reports." However, the title pages for binders 2 and 3 read, "Binder 2 – Appendix K Data Tables 8.1-8.7" and "Binder 3 – Appendix K Data Tables 8.8-8.16." Provide replacement pages for binders 2 and 3 with the correct reference to Appendix L and include the pages with the revised Report. Ensure that the title page for each binder is correct prior to submittal.

Comment 9

Throughout the document, the Permittee uses undefined acronyms (*see* Comment 3) or is inconsistent with their use. The following are examples from the Report.

a. In the List of Acronyms, page 8, several acronyms used in the Report were omitted.

b. In Section 1.0 (Introduction), paragraph 2, page 9, the Permittee fails to introduce the acronyms such as New Mexico Water Quality Control Commission (NMWQCC) as well as interchanges different acronyms for NMWQCC throughout the Report. Throughout the Report, the Permittee refers to the NMWQCC as NMWQS, WQCC, and WQCC 20 NMAC 6.2.3103.

c. In Section 2.0 (Scope of Activities), bullet 3, page 34 the Permittee defines new API Separator as "NAPI." However, the Permittee also uses "NAPIS" throughout the Report and it is not clear if they are the same unit.

d. In Section 2.2 (Sampling Methods and Procedures), bullet 8, page 25, the Permittee states, "[t]rip blanks will accompany laboratory sample bottles and shipping and storage containers intended for VOC analysis." The Permittee did not define VOC as volatile organic compound prior to introducing the acronym.

e. In Section 6.1 (Monitoring Wells That Have Constituent Levels Above Standards), *SMW-2, SMW-4*, page 43, the Permittee states, "SMW-2 is located on the southeast corner of the closed Land Treatment Unit and SMW-4 is located on the north side of the closed Land Treatment Unit. In SMW-2, MTBE was detected at 0.0088 ppm below the EPA RSL standard. Gasoline Range Organics in SMW-2 have ranged from 0.69 ppm in January 2008 to non-detectable level of <0.05 ppm in July 2009." The Permittee introduced "LTU" in the first paragraph but did not define the acronym until the second paragraph. In addition, "Gasoline Range Organics (GRO)" had already been introduced and the Permittee redefines it in the discussion.

Revise the Report to define the acronyms at their first use and be consistent when using them throughout the Report.

Comment 10

In Section 1.2 (Background Information), the last sentence in paragraph 1 on page 10, bullet 5 and paragraph 2 on page 11, "feed stock" is misspelled. Correct the spelling error.

Comment 11

Table 1 (2010 Monitoring Schedule) in Section 2.0 (Scope of Activities) summarizes the sample location IDs, the sampling frequency, sample and inspection dates, analytical suites, and reference tables. The following comments pertain to Table 1:

a. Report the sample and inspection dates ascending from the first sample/inspection date to the most recent sample/inspection date.

b. The information in Table 1 is similar to the table in the 2009 FWGWMP. However, Table 1 lists the analytical methods and an expanded inventory of constituents instead of listing only the constituents to be analyzed. The data tables only list some of the analytical methods mentioned in Table 1. Revise Table 1 to only report the constituents to be analyzed (e.g., volatile organic compounds (VOCs), semi-volatile organic

compounds (SVOCs)) and discuss and list all corresponding analytical methods from Table 1 and the data tables in the appropriate section (e.g., Section 2.5 (Analytical Methods)) in the revised Report.

c. Information in the column titled, "Analytical Suite" does not always pertain to the constituents to be analyzed; there are notes regarding monitoring activities for most of the wells. Change the header of the column to "General Monitoring and Sampling Comments" to reflect the information in the column.

d. Revise the information in the column labeled "Reference Tables" with the correct references to the analytical data and appendices. Change the title of the column to "Analytical Data."

e. There are typographical errors in the "Analytical Suite" column regarding some of the analytical methods. For example, in the row for "Sampling Location ID: Influent to AL-1", the Permittee references "8026 + MTBE" as the constituents to be analyzed. "8026" is incorrect. Check that all analytical methods are listed correctly and correct them as necessary (*see* Item a above).

f. On page 19 in the "Sampling Location ID" column, there is a typographical error: "EP-9" should be "EP-9a" as reported in the approved 2010 FWGWMP. Review all sample location IDs and ensure they are labeled correctly.

g. Revise note 1 to reference that the sample locations were added to the FWGWMP (approved with modifications on August 25, 2010).

h. Revise note 3 to reference that the first and second quarter sampling and monitoring activities were conducted using the 2009 FWGWMP and that the third and fourth quarter sampling and monitoring activities were conducted using the 2010 FWGWMP. In addition, change the "[3]"from a superscripted number to match the text font size.

i. Include a footnote about the samples collected on 7/15/10 and assign it as note 4.

Comment 12

In Section 2.2 (Sampling Methods and Procedures), paragraph 1, page 24, the Permittee states, "[f]ield water quality measurements must stabilize for a minimum of three consecutive readings taken at 2 to 5 minute intervals and are within the following limits before purging will be discontinued and sampling may begin: DO-Dissolved Oxygen (10%), Specific Conductance (3%), Temperature (3%), pH (+/- 10 mill volts)." The correct units of measure for pH are

millivolts (mV). Revise the Report to correct the units of measure for pH. Revise the Report to ensure that all units of measure are correct.

Comment 13

The following comments pertain to Section 2.2.1 (Equipment):

a. Replace the paragraphs in Section 2.2.1 with bulleted points rather than presenting in paragraph form.

b. In paragraphs 1 and 4, the unit, inch or inches, can be abbreviated to "in." after it has been introduced.

c. In paragraph 2, remove the capital "I" from the first use of "Instrument" and replace with a lower case "i."

d. In paragraphs 3 and 4 the Permittee introduces field measurements. Replace the first "dissolved oxygen" with "dissolved oxygen (DO)" and the second "dissolved oxygen" with "DO."

e. In paragraph 4, the Permittee states the "[p]olyethylene bailer (1.5" X 36 inches overall length; capacity approximately 1 liter)." Remove the " symbol and replace with "inches" or "in." The Permittee must be consistent when reporting units throughout the Report.

In general, the Permittee must proofread and edit submittals and ensure formatting, abbreviations, and acronyms are used correctly throughout the revised Report. Apply all changes described above in the revised Report.

Comment 14

In Section 3.0 (Ground Water Elevation Surveys), page 28, the Permittee states, "[g]round water elevation data are collected from the wells listed in Section 2.0. Figure 6 shows the locations of all the active wells. Section 9 contains the data gathered for 2010." In Section 5.1 (Potentiometric Map), page 30, the Permittee states, "Figure 8 presents a Potentiometric Elevation Map showing ground water elevations in some of the Chinle/alluvium wells and contours and Section 10 provides ground water elevation data gathered during 2010." The Permittee does not mention that the wells were resurveyed in 2010 as required by the May 2011 NOD. The May 2011 NOD stated that the elevation data was incorrect in the 2009 Report. In addition, it is unclear if the incorrect elevation data from the 2009 Report were used to generate the figures in Section 10 (Figures) or if the unapproved survey data from *Requirement to Resurvey Ground Water Monitoring Wells and Recovery Wells* (dated December 5, 2011) was

used. Revise the Report to clarify which elevation data were used to generate the figures in Section 10 and provide statements in Sections 3.0 and 5.1. In future reports, use the approved survey data and correct any associated figures.

Comment 15

In Section 6.1 (Monitoring Wells That Have Constituent Levels Above Standards), *BW-1C, 2B, 2C, 3B, 3C*, paragraph 2, page 32, the Permittee states, "BW-2B dissolved metals also had readings of 0.22 ppm for manganese which is above the WQCC standard of 0.2 ppm, and selenium was also detected at 1.2 ppm which is above the WQCC and EPA [maximum contaminant level (MCL)] standards of 0.05 ppm." Revise the Report to replace "readings" with "concentrations" to better describe the analytical data.

Comment 16

Throughout Section 6.1 (Monitoring Wells That Have Constituent Levels Above Standards), the Permittee presents the sample and monitoring dates in several formats such as "7/15/10, 7-15-10, and July 15, 2010." Be consistent when presenting monitoring and sample dates. In addition, the Permittee must also report the dates ascending from the oldest date to the most recent date in text of the revised Report (*see* Comment 11a).

Comment 17

Throughout Section 6.1 ((Monitoring Wells That Have Constituent Levels Above Standards), the Permittee inserted trended data figures (Tables 2 through 14). Move the trended data figures from this section to a more appropriate section of the revised Report. In addition, the Permittee labeled these trended figures "Tables." Label them as graphs or figures in the revised Report and include the individual data points on the graphs in the revised Report.

Comment 18

In Section 6.1 (Monitoring Wells That Have Constituent Levels Above Standards), *GWM-1*, paragraph 2, page 32, the Permittee states, "[benzene, toluene, ethylbenzene, xylene (BTEX)] constituents analyzed in this well are as follows: Benzene averaged 0.0086 ppm for 2010, with first quarter recording the highest level of 0.012 ppm above the EPA RSL standard of 4.1E-04 ppm, the EPA MCL standard of 0.005 ppm, and the NMWQS of 0.01 ppm." Throughout Section 6.1, the Permittee makes statements about the average of the concentrations detected for each constituent. The Permittee must not report the data as an average. The Permittee must evaluate and report individual results for each constituent. Remove all statements that discuss averaging in the revised Report.

Comment 19

In Section 6.1 (Monitoring Wells That Have Constituent Levels Above Standards), *GWM-2, GWM-3*, page 35, the Permittee states, "GWM-2 and GWM-3 are inspected on a quarterly basis and these wells are considered dry wells since its installation in 2005. Water was detected in GWM-2 in 2008 in the first quarter. Notification was given to NMED and OCD respectively. In 2010 during the second quarter inspection, GWM-2 and GWM-3 were found to have a water level of 1.5 feet in GWM-1 and 0.88 feet in GWM-3. Notification was given to NMED and OCD within 24 hours of finding." The Permittee does not consistently state which wells are only inspected or both inspected and sampled. Clarify the first sentence to explain that when water is detected in these wells, NMED and OCD are notified and state whether the wells are sampled, purged dry, and then re-inspected to monitor for recharge or no action is taken beyond reporting the presence of water in the wells. In addition, there is a typographical error that references "GWM-1;" replace with "GWM-2" and ensure all wells are correctly referenced.

Comment 20

In Section 6.1 (Monitoring Wells That Have Constituent Levels Above Standards), *NAPIS-1. NAPIS-2, NAPIS-3, KA-3*, page 39, the x-axis "Date" for the figure, "Table 11: (KA-3 DRO/GRO Levels for 2008 through 2010)" is incorrect. Revise the figure to present the data ascending from the oldest date to the most recent date. Ensure all figures are accurate prior to submittal.

Comment 21

In Section 6.1 (Monitoring Wells That Have Constituent Levels Above Standards), *NAPIS-1. NAPIS-2, NAPIS-3, KA-3*, page 40, the Permittee states, "NAPIS-1 General chemistry parameters were below the applicable detectable standards with the exception of nitrates in the third quarter detected at 11.2 ppm, which is above the WQCC and MCL standards of 1.0 ppm. Nitrates also was detected at levels above the the MCL standards in NAPIS-1 in the second quarter at 2.0 ppm to 11.2 ppm in the third quarter. NAPIS-2 had fluoride and chloride levels above the WQCC applicable standard. NAPIS 3 and KA-3 had chloride levels above the WQCC standard 250 ppm with a high reading of 1100 ppm in NAPIS-3 and KA-3." The Permittee did not report the analytical results or the WQCC screening levels for samples obtained from well NAPIS-2 for either fluoride or chloride. The Permittee must be consistent when reporting the screening levels and analytical results of the constituents throughout the revised Report. In addition, there is an extra "the" in the second sentence. Revise the Report accordingly.

Comment 22

In Section 6.2 (Wells with Constituent Levels below Standards), *BW-1, BW-2, BW-3*, paragraph 2, page 44, the Permittee states, "BW-1A and BW-1depth to water measurements indicated that both of these wells were dry during the July 2010 annual sampling event. No samples were collected from BW-1A and BW-1B." There is a typographical error in the first sentence. Revise the Report to correct the second well as "BW-1B."

Comment 23

In Section 6.2 (Wells with Constituent Levels below Standards); *GWM-2, GWM-3*, paragraph 4, page 46, the Permittee states, "[f]ourth quarter inspections revealed there was a water level in both wells. Notification was given to NMED and NM OCD. Samples were collected and wells purged of remaining water." The Permittee is not being consistent when reporting information from sampling and monitoring the wells, GWM-2 and GWM-3. The previous sections provide the date that the water levels were first checked, the notification date to NMED and OCD, and the completion date of the weekly checks. In the bulleted items, the Permittee did not present date(s) for the fourth quarter sampling and inspections. Be consistent in reporting dates throughout the Report and include the missing information for GWM-2 and GWM-3 in the revised Report.

Comment 24

In Section 6.2 (Wells with Constituent Levels below Standards), *MW-1, MW-4, MW-5*, and *MW-2*, page 47, the Permittee introduces the "modified skinner list of metals and organics." In Table 1 (2010 Monitoring Schedule) of Section 2.0 (Scope of Activities), page 21, the Permittee does not report modified Skinner List metals and organics for MW-1, MW-4, and MW-5 as the suite of analytes to be tested; rather WQCC metals are reported. In Table 1, the Permittee does not list modified Skinner List metals and organics for MW-2; RCRA Skinner List is reported. Explain these discrepancies and provide corrections, where necessary, in the revised Report. In addition, "Skinner List" is a title. Ensure all analytical method and constituent information is consistent throughout the Report.

Comment 25

In Section 6.2 (Wells with Constituent Levels below Standards), *OW- 1 and OW-10*, paragraph 2, page 47, the Permittee states that "[t]hese wells are visually checked and water level measurement taken on a quarterly basis. Inspections were done on 2-11-09, 5-4-09, 8-10-09 and 10-27-09." The inspection dates for wells OW-1 and OW-10 in 2010 are not included. Revise the Report to correct the dates of inspection for the 2010 reporting period and discuss accordingly.

Comment 26

In Section 6.2 (Wells with Constituent Levels below Standards), *OW-12*, page 48, the Permittee states, "OW-12 is sampled on an annual basis. Ground water samples are analyzed for the following constituents: Major cations/anions, 8260 plus MTBE, 8270 plus phenol, and WQCC Metals. Well was sampled on the following date: 7/22/10. BTEX plus MTBE, SVOCs and VOCs were at non-detectable levels." The Permittee listed several constituents and analytical methods to be analyzed for well OW-12; however, the chain of custody and analytical data indicate that this sample was analyzed for MTBE only. The Permittee did not present any analytical data results for BTEX, SVOCs, VOCs, or WQCC metals and cannot state that the results were not detected if the sample was not analyzed for these constituents. Review the entire section and ensure all analyzed constituents for each monitoring well correlate with Table 1 (2010 Monitoring Schedule) and the analytical lab results before discussing them in each section. Revise the Report to discuss the correct information and ensure the discussion regarding analytical results match chemical analyses that were conducted.

Comment 27

In Section 6.2 (Wells with Constituent Levels below Standards), *PW-2, PW-3, PW-4*, page 49, the Permittee provides information about the sampling frequency for these wells after each sample date and in the following paragraph. Remove the information after the sample dates in the revised Report to eliminate redundancy.

Comment 28

In Section 6.2 (Wells with Constituent Levels below Standards), *Evaporation Ponds 1 through 12B*, page 50, the Permittee states, "[p]ond water samples are analyzed for the following constituents: General Chemistry, 8260 plus MTBE, 8279 plus phenol, WQCC 20.6.2.3103 constituents, [biological oxygen demand (BOD), chemical oxygen demand (COD)], E-Coli Bacteria and RCRA 8 metals." There is a typographical error with the analytical method presented in this section; there is no analytical method "8729." Correct the analytical method to "8270" in the revised Report and ensure all sections report the correct analytical methods prior to submitting them for review.

Comment 29

In Section 6.2 (Wells with Constituent Levels below Standards), *Influents: Infl to AL-1; Infl to AL-2; Infl to EP-1; BW to EP-2*, page 51, the Permittee states, "[g]eneral chemistry parameters analyzed for Infl to AL-1 and AL-2 detected the following: Fluoride levels at 95 to 160 ppm. Sulfate levels ranged from 950 ppm to 990 ppm. [Diesel range organics (DRO)] was detected from a low of 1.3 ppm to a high of 60 ppm to Al-1. Infl to EP-1 fluoride levels ranged from 66

ppm to 100 ppm and chloride ranged from 440 ppm to 220 ppm. Sulfate averaged 1413 ppm. DRO averaged 64.8 ppm." The Permittee did not provide the correct name of the sampling location (AL-1 not Al-1) or correctly present the range of results for chloride (220 ppm to 440 ppm). Provide the corrections in the revised Report.

Comment 30

In Section 6.3 (Deviations from OCD Groundwater Discharge Permit GW-032), paragraph 2, page 53, the Permittee states, "[a]ll other outfalls required to be sampled under the OCD Ground Water Discharge permit GW-032, were monitored and the data have been presented in Section 2.0 and Appendix J." It is unclear why the Permittee references Section 2.0 instead of Section 8.0, which contains the data tables. Provide the correct reference in the revised Report.

Comment 31

In Section 7.0 (Conclusions), paragraph 2, page 54, the Permittee states, "RW-1 and RW-6 are the only two recovery wells where hydrocarbons are recovered on a quarterly basis. In 2010 a total of 0.66 gallons was recovered compared to 1.78 gallons in 2009. RW-6 had a total of 0.15 gallons in 2010." It is unclear whether the Permittee is reporting a "total of 0.66 gallons" for both RW-1 and RW-6 or only for RW-1. Clarify the statement in the revised Report.

Comment 32

In Section 7.0 (Conclusions), paragraph 2, page 55, the Permittee states, "[a]lso located on the West side are a series of boundary (BW), observation (OW), monitoring (MW), process (PW), and shallow monitoring (SMW) wells. Among the MW and SMW monitoring, levels above the NMWQS of fluoride have been detected in some of the boundary wells. Among the MW and SMW monitoring wells in the west side, a few have shown traces of hydrocarbons. SMW-2 has shown a level of diethyl phthalate at 0.000189 ppm." The Permittee redefines all the acronyms for the wells at the Refinery in this statement. The acronyms have already been defined and do not need to be reintroduced. Revise Section 7.0 of the Report to use only the acronyms. In addition, the Permittee is not consistent when addressing the location of wells using a capital "W" for "West side" in the first sentence and a lowercase "w" in the second to last sentence. Review the revised Report for consistency and errors. The Permittee also provides a concentration of diethylphthalate of 0.000189 ppm. The method detection limit for this compound is listed in EPA Method 8270D as 10 ug/L. It is unlikely that a concentration of 189 nanograms per liter could be quantified by this analysis. In Comment 14e of the May 2011 NOD for the 2009 Report, NMED requires the Permittee to provide scientific notation for results at or greater than 4 decimal places. Revise the Report to state diethylphthalate as 1.89E-04 ppm or correct the reported result and review the rest of the document to ensure all results are being presented as required.

Comment 33

There were several errors and missing analytical data results in Section 8.0 (Data Tables). The following comments pertain to Section 8.0:

a. The Permittee was required to address formatting errors that were stated in Comments 14a, 14b, 14e, 14f, and 14o in the May 2011 NOD for the 2009 Report; however, not all of these errors were addressed. The Permittee must review the comments from the May 16, 2011 NOD and the comments in this NOD and make all required changes to the revised Report.

b. There are several data tables in Section 8.0 that do not correctly highlight analytical results that are greater than the screening levels. For example, Table 8.1 (EFFLUENTS (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent) BTEX Analytical Result Summary), page 57, the NAPIS Effluent sample result for toluene dated 9/9/2008 was bolded, but the analytical result is less than the screening levels for toluene. In addition, in Tables 8.10.1 (Evaporation Ponds (1 thru 12B) General Chemistry Analytical Result Summary) through 8.10.6 (Evaporation Ponds (1 thru 12B) Volatile Organics Analytical Result Summary), pages 108 through 121, the Permittee did not highlight any of the analytical results that were greater than the associated screening levels for each constituent. Review all data tables to check that the correct analytical results have been highlighted. Revise the Report as necessary.

c. Several tables contain errors in column names, sample location names, definitions and/or notes for the data tables. For example, Table 8.1 (EFFLUENTS (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent) BTEX Analytical Result Summary) on page 57 presents "NAPIS" as all capital letters in the title of the data table, but as "Napis Effluent" in the sample location. In addition, Table 8.2 (INFLUENTS (Infl to AL-1, Infl to AL-2, Infl to EP-1) BTEX Analytical Summary Results), page 68, the Permittee did not correctly label the sample location "Infl to AL-1," but as "Infl to Al-1"and incorrectly labeled the column as "Well ID." The locations in Table 8.2 are not wells. Table 8.4.2 (GWM-1, GWM-2, GWM-3) Total Metals Analytical Summary Results), page 93, show "**" and "[2]" in the data table but the symbols are not defined in the footnotes. Review all data tables and correct all errors in the revised Report.

d. Table 8.1 (EFFLUENTS (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent) BTEX Analytical Result Summary), page 58, explain the difference between "NL = Not listed on laboratory analysis," and "NR = Not requested."

e. Table 8.1 (EFFLUENTS (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent) General Chemistry Analytical Result Summary), page 59 to 60, the Permittee must carry over the

sample location ID to the following page (60) to ensure the correct sample location remains with the corresponding analytical results. Check all data tables to ensure the sample location names are carried over to subsequent pages, where appropriate, in the revised Report.

f. Table 8.1.2 (EFFLUENTS (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent) BOD/COD Analytical Result Summary), page 61, the Permittee has left the "Parameters" section of the data table blank with no information to explain the meaning of blank cells for BOD and COD. However, Table 8.2.1 (INFLUENTS (Infl to AL-1, Infl to AL-2, Infl to EP-1) General Chemistry Analytical Result Summary), page 69, provides screening levels and notes for BOD and COD. Revise the Report to fill in missing information for all data tables and ensure information is consistent in the data tables.

g. Table 8.1.3 (EFFLUENTS (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent) Total Metals Analytical Summary Results), page 63, is a page with a title and notes, but the Permittee does not include a data table with the total metals analytical data results. Appendix L (Laboratory Analytical Reports) contains analytical results for the total metals for the sampling locations AL-2 to EP-1, Pilot Effluent, and NAPIS Effluent. Provide a data table that summarizes the analytical results for these sampling locations in the revised Report.

h. Table 8.1.4 (EFFLUENTS (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent) Dissolved Metals Analytical Summary Results), page 64, presents dissolved metals analytical data results for the sampling locations AL-2 to EP-1, Pilot Effluent, and NAPIS Effluent. The names of the constituents are cut off due to the small cell size. In addition, the Permittee is not consistently creating the same border format for all cells. Review all data tables to ensure that all names/labels fit in each cell and that all tables are formatted consistently.

i. Table 8.1.6 (EFFLUENTS (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent) Volatile Organic Analytical Summary Results), page 67, presents analytical results for VOCs. The column labeled "Aniline" contains analytical results that are presented in bold print but the EPA Tap Water screening level (RSL = 11.6 ug/L) is not listed for this constituent. Remove the bold format and review all data tables to check that the correct analytical results have been highlighted and bolded (*see* also Item b above). In addition, the analytical result for pyridine collected on 6/8/2010 was omitted. Provide the missing analytical results in the revised Report. Review all data tables to ensure that there are no missing analytical results or information in the data tables.

j. Table 8.2 (INFLUENTS (Infl to AL-1, Infl to AL-2, Infl to EP-1) BTEX Analytical Summary Results), page 68, presents analytical results for BTEX. The Permittee must

provide footnote numbers to bring attention to the dated notes on the bottom of the page of the table. Revise the Report accordingly.

k. Table 8.2.1 (INFLUENTS (Infl to AL-1, Infl to AL-2, Infl to EP-1) General Chemistry Analytical Summary Results), page 69, the Permittee presents general chemistry analytical results. Correct the units for "Specific Conductance" which are reported as microsiemens per centimeter (µS/cm) in the laboratory analytical reports, but as milligrams per liter (mg/L) in the table. Revise the table and check all other data tables to ensure the correct units are presented in the revised Report.

l. Table 8.4 (OW-1, OW-10) BTEX Analytical Summary Results), page 78, the Permittee presents BTEX analytical results for OW-1 and OW-10. The Permittee must provide all data results for OW-1 and OW-10, including results from previous sampling to compare to sample analytical results for 2010. Revise the table to include the data results for OW-1 and OW-10 prior to 2010. If samples were not analyzed prior to 2010, state as such in the results discussion.

m. Table 8.4.2 (GWM-1, GWM-2, GWM-3) Total Metals Analytical Summary Results), page 93, presents the total metals analytical results for GWM-1, GWM-2, and GWM-3. However, the results shown include the dissolved metals results. Provide a separate data table for dissolved metals results in the revised Report.

n. Several of the data tables have been printed on legal paper (8.5 X 14 inch). There are also several data tables that have different fonts and font sizes. Revise all the data tables to be consistent with the font size and font style. In addition, print all data tables that do not fit on an 8.5 X 11 inch paper onto 11 X 17 inch paper per Comment 14o of the May 2011 NOD.

o. Section 8.10.2 (Evaporation Ponds (EP-1 thru EP-12B) BOD/COD, E-COLI Analytical Result Summary) is missing page 112. Provide the missing page in the revised Report.

Comment 34

In Section 9.0 (Well Summary Table), page 147, the Permittee states, "[t]he Well Data Summary Table was submitted with current survey measurements provided by DePauli Engineering on August 1, 2010 to NMED-HWB. The revised data table was disapproved and will be revised as requested by correspondence received from NMED-HWB on August 22, 2011. A "Notice of Disapproval Requirement to Resurvey Ground Water Monitoring Wells and Recovery Wells" was received by Western and is currently addressing the comments listed in the disapproval. Per NMED-HWB request a work plan will be submitted on or before December 30, 2011." The Permittee did not mention that the wells were resurveyed in 2010 because the previous survey

data was inaccurate. In addition, it is unclear if the unapproved survey data from *Requirement to Resurvey Ground Water Monitoring Wells and Recovery Wells* (dated December 5, 2011) was used to generate the figures from Section 10 (Figures). Revise Section 9.0 to acknowledge that the survey was conducted to correct the elevation inaccuracies from previous surveys and that the Well Data Summary Table will be submitted once the survey data has been approved by NMED. In addition, the Permittee did not submit a work plan, only a response letter to NMED. Revise the Report by removing the last sentence of the above-referenced paragraph.

Comment 35

Page 151, the figure's title has been printed on the following page (152). In addition, the Permittee was required to provide arrows on the figure indicating the direction of flow per Comment 17 of the May 2011 NOD. Provide a revised figure to include the title and arrows indicating the direction of groundwater flow in the revised Report.

Comment 36

The following comments pertain to Figures 6 (Facilities and Wells) through 13 (Product Thickness Map (Separate Phase Hydrocarbon Thickness – Nov 2010)):

a. All figures did not include the figure number in the title, for example, "Figure 6: Facilities and Wells." In addition, the groundwater monitoring and recovery well names are not always visible (i.e., obscured by cross-hatching). Revise the figures to include both a description and the figure number in the title as well as ensure that all groundwater monitoring and recovery well names are visible on the figures.

b. On Figure 6 (Facilities and Wells), page 153, the Permittee labeled monitoring wells near SWMU 1 (Aeration Basin) as "KA-1R, KA-2R, and KA-3R" instead of "NAPIS-1, NAPIS-2, and NAPIS-3." In addition, the Permittee did not provide a note explaining the cross-hatching found in the Figure 6. Revise the figure to be consistent with the monitoring well designations in the Report. In addition, provide a note that explains the purpose of the cross-hatching.

c. Figures 7 (Typical South – North Profile, Western Refining – Gallup Refinery) through Figure 12 (Alluvial/Fluvial Upper Sand Water, Water Elevations (July 2010) are considered to be inaccurate. The Permittee has not provided a data table presenting elevation data or a reference for the elevation data from these figures. Correct these figures using the approved elevation data and resubmit them with the revised Report.

d. Figures 7 (Typical South-North Profile, Western Refining – Gallup Refinery) and 8 (South – North Section Westerly Plant Area) provide cross-sections based on monitoring wells and possible borings. The following must be completed for these figures.

    1. Provide different symbols or colors to differentiate between monitoring wells and borings and provide a legend to explain the symbols on the figure.

    2. Ensure scale and legends of cross-section figures are legible.

    3. Increase the font size of the elevation and station numbers so they are legible.

    4. Provide a north arrow and clearly label relevant features (e.g., ponds above and below cross-section in Figure 8).

    5. Provide consistent font sizes in figures.

e. Figure 13 (Product Thickness Map (Separate Phase Hydrocarbon Thickness – Nov 2010)) provides information about the separate phase hydrocarbon (SPH) thicknesses near RW-1, RW-5, and RW-6. Provide the numerical values for all of the contours for each area presented in Figure 13 in the revised Report.

Comment 37

Appendix A (Separate Phase Hydrocarbons Recovered (RW-1)) provides two tables with information regarding the recovery of SPH from RW-1; however, the Permittee does not provide any information or data for wells RW-5 and RW-6. Because SPH recovery has been mentioned in past reports, provide similar data tables with information for these recovery wells in the revised Report.

Comment 38

Appendix B (Applicable Standards) provides a collection of information pertaining to the screening levels used to evaluate the analytical results from the Report. However, the Permittee must separate each set of standards by providing title pages for each section. For example, the title page for the New Mexico Water Quality Control Commission (WQQC) standards can be labeled as "Appendix B.1: WQCC Standards," and so on. The Permittee also provided Table 2b (TPH Screening Guidelines – Vapor Migration and Inhalation of Groundwater (GW-2)) as a reference for the standard used to compare to the DRO analytical results; however, Table 2a (TPH Screening Guidelines for Potable Groundwater (GW-1)) was used. Provide the correct information in the revised Report. In addition, the Permittee provided the Regional Screening Level (RSL) Summary Table June 2011 in Appendix B. The Permittee positioned the table so

that some of the tables faced backwards. The Permittee must check all data tables and submitted documents to ensure that all tables and documents face the same direction prior to submitting the Report for review. Recently, NMED sent out a notice that NMED's current Risk Assessment Guidance has been updated. These screening levels must be applied to future work plans and reports.

Comment 39

In Appendix C (Well and Field Logs), Well # BW-2A dated 7/14/2010, the Permittee did not calculate the well volumes or provide a water level for this well log. Provide a corrected well log with the revised Report.

Comment 40

NMED conducted a preliminary review of Appendices D (Summary of Waste Water Treated and Water Balance) through K (Monthly Flow Rate to NAPIS); however, these documents were submitted as a requirement for the OCD Discharge Permit and are subject to review by OCD. OCD may provide comments in separate correspondence.

Comment 41

In Appendix F (Summary of all EPA/NMED/RCRA Activity), the Permittee did not include the data obtained from resurveying the wells required by the May 2011 NOD. Include the data in the revised Report.

The Permittee must submit a response letter and revised Report addressing all comments included in this NOD and provide the revised Report by **July 13, 2012**. All comments in this NOD that pertain to all reports must also be addressed in future Annual Reports.

If you have questions regarding this NOD please contact Leona Tsinnajinnie of my staff at 505-476-6057.

Sincerely,

John E. Kieling
Acting Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
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File: Reading File and WRG 2012 File
HWB-WRG-11-004