

AP-111

AGWMR

11 of 12

2013

APPENDIX H

Summary of Leaks, Spills, and Releases

SPILL SUMMARY REPORT – 2013

DATE	INCIDENT
1/15/13	An estimated 70 barrels of oily waste water mixture (7 barrels – oil) overflowed at T-105 sewer cup. Oily waste water mixture was being transferred to Tank 105 via a diversion line at the sewer cup when sewer cup began to overflow. The diversion line was found to be frozen or plugged which caused the backup of the waste water to overflow onto the old API Pit Area (SWMU 14). A vacuum truck was dispatched to vacuum up standing water, estimated that 69.5 gallons of oil/water mixture was recovered. Area cleanup was completed on 1/15/2013. Spill was reported to appropriate agencies and Form C-141 was filed.
5/7/13	At 6:45AM, Marketing Tank 3 overflowed (89 Octane Gasoline). It is estimated that 97 barrels of 89 Octane gasoline had spilled to ground surface. The auto-fill was left in hand position and the high level alarm malfunctioned causing the tank to overflow. Offsites personnel shut off the base pump to Marketing Tank to stop flow. ERT members were dispatched and a layer of foam was used. Spilled was contained inside an earthen bermed area and vacuum truck was dispatched to begin the clean up process for liquid. Liquid and soil was cleaned up, sent for analysis and disposed of accordingly. Spill was reported to appropriate agencies and Form C-141 was filed.
6/26/13	A hydrocarbon seep was discovered in a field west of Tank 101/102 during a routine inspection. A site investigation was initiated bringing in a contractor to begin exploratory excavations at the site of the seep. NAPL (non-aqueous petroleum liquid) mixed with water was discovered and several six temporary sumps were installed for NAPL recovery along with monitoring wells. Further investigation upstream revealed that a process sewer line connecting the bundle pad area may be the source of the seep discovered. Excavation of the sewer line exposed corrosion in the line and the line was replaced. The site investigation continues to date with installation of more monitoring wells to determine extent of seep. Approximately 63,261 gallons of liquid (with 76,167 gallons to be water and 2,264 gallons to be product) has been recovered through the end of December 2013. Site investigation continues. Seep discovery was reported to appropriate agencies and Form C-141 was filed.
8/2/13, 8/4/13	On 8/2/13, heavy rainstorms created an influx of stormwater in the sewer drains causing holding tank T-35 to overfill with oily waste water onto ground surface. Sill was contained inside an earthen bermed area. Vacuum truck was dispatched to begin clean up of oil/water mixture. On 8/4/13 location was hit with another heavy rainstorm causing tank 35 to overfill with oily waste water. Vacuum trucks were dispatched to pick up as much of the liquid as possible. A foam blanket was dispersed due to LEL issues as a precautionary measure. Clean up of liquid and soil removal was initiated, along with lab analysis of samples taken for proper disposal. Both of these events were reported individually to appropriate agencies and in reporting on Form C-141, both of these events were combined as one when filed.
9/8/13	Kerosene rundown line from Tank 226 to the KHT Unit was found to have a leak. Leak was due to corrosion on existing pipeline. Line was blocked in and fire department was notified as a precautionary measure and covered area with foam as standard operating procedure. It is estimated that 13 barrels of product/foam was vacuumed up. Spill was reported to appropriate agencies and Form C-141 was filed.

9/27/13	Kerosene rundown charge line bleeder cracked open. When offsite personnel went to start charge pumps he discovered the leak. He immediately blocked in system and notified supervisor. It is estimated that 6.5 barrels of product was released to ground. Vacuum truck was dispatched to clean up spilled product and contaminated soil removed. Spill was reported to appropriate agencies and Form C-141 was filed.
---------	--

Attached are copies of all the Form C-141 filed for 2013.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: WESTERN REFINING	Contact: Beck Larsen	
Address: I-40 / EXIT 39, JAMESTOWN, NM 87347	Telephone No. (505) 722-0258	
Facility Name: WESTERN RENING (GALLUP REFINERY)	Facility Type: Petroleum Refinery	
Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15 N	15 W					MCKINLEY

Latitude 35° 029' 024" Longitude 108° 024' 024"

NATURE OF RELEASE

Type of Release: Hydrogen Sulfide (H2S) and Total Hydrocarbon (TPH) (Methane) Released to Air	Volume of Release H2S- (5.6 MCF/ TPH 1138.5 MCF	Volume Recovered: N/A
Source of Release: Deethanizer Reflux Line (SATS Unit)	Date and Hour of Occurrence 1/30/13 @ 1458 hrs	Date and Hour of Discovery 1/30/13 @ 1458 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NRC/(# 9913)/LEPC/SERC/NMED (R Horowitz)/OCD (C. Chavez)	
By Whom? Loretta Morgan	Date and Hour: 1/31/13 1324 hrs	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.* N/A

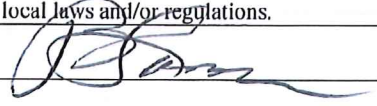
Describe Cause of Problem and Remedial Action Taken.*

A 6 inch rupture in a 2 inch sch 80 Deethanizer Reflux Line coming out of the Deethanizer Tower (SV-4) in the SATS Unit occurred on January 30th, 2013. The flow rate at the time of the rupture was about 3064 lbs/min (~ 76 MCF/min for about 15 minutes. The onsite Emergence Response Team responded to the incident. During this incident an estimated 455 pounds of hydrogen sulfide (H2S) (5.5675 MCF) and total hydrocarbon (Methane) 45,540 pounds (equivalent to 1138.5 MCF) was released to the atmosphere. There were no injuries or adverse effects to the environment during this incident.

Describe Area Affected and Cleanup Action Taken.*

The onsite Emergence Response Team responded to the incident. The total time for the incident was about 1 hour 45 minutes. An ongoing incident investigation is underway in order to determine the exact cause of the pipe rupture or failure. Pipe replacement to the Deethanizer Reflux Line was completed on February 2nd. The SATS Unit was placed back in service Saturday morning, February 2nd.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION		
Printed Name: Beck Larsen:	Approved by Environmental Specialist:		
Title: Environmental Engineer	Approval Date:	Expiration Date:	
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:		Attached ☐
Date: 2/4/2013 Phone: (505) 722-0258			

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

Name of Company: WESTERN REFINING		OPERATOR		☒ Initial Report	☐ Final Report
Address: I-40 / EXIT 39, JAMESTOWN, NM 87347		Contact: Beck Larsen			
Facility Name: WESTERN RENINING (GALLUP REFINERY)		Telephone No.(505) 722-0258			
		Facility Type: Petroleum Refinery			
Surface Owner		Mineral Owner		API No.	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the North/South Line	Feet from the East/West Line	County
	28	15 N	15 W			MCKINLEY

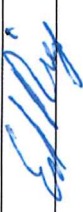
Latitude 35° 029' 024" Longitude 108° 024' 024"

NATURE OF RELEASE

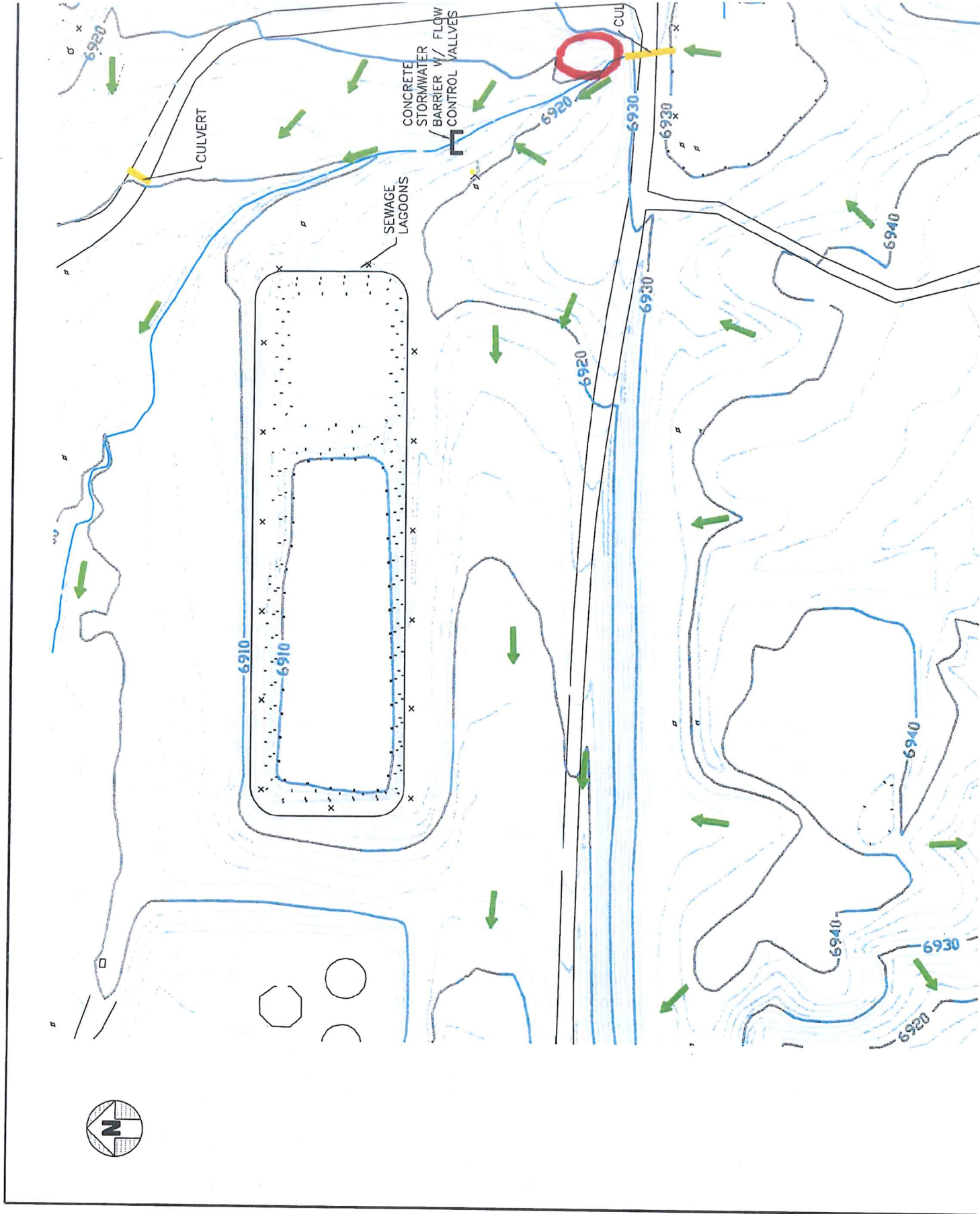
Type of Release: Refined Product – Gasoline/Diesel Mixture	Volume of Release > 25 barrels	Volume Recovered: 400 barrels
Source of Release: Unknown; Pending Investigation	Date and Hour of Occurrence 6/26/13 @ 1600 hrs	Date and Hour of Discovery 6/26/13 @ 1600 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? (HWB-R, Horowitz (msg:1720), K Vanhorn (msg: 1723)); (OCD -C Chavez (msg:1716))	
By Whom? Beck Larsen	Date and Hour: (HWB-R, Horowitz (msg:1720), K Vanhorn (msg: 1723)); (OCD -C Chavez (msg:1716))	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	
If a Watercourse was Impacted, Describe Fully. * N/A		

Describe Cause of Problem and Remedial Action Taken.*

- Problem consists of the following:
 - Refined product, Non-Aqueous Petroleum Liquid (NAPL), with water was discovered from a seep in an isolated area 100 yards west of T-101/102;
 - Since the recovered NAPL consists of gasoline/diesel mixture that is fresh and volatile, the release appears to be from recent operations; and
 - The cause/source is unknown and pending.
- Emergency Response was initiated upon discovery of a reportable quantity.
- Investigation actions include:
 - Envirotech completed 14 exploratory excavations using a track hoe to determine the source of the hydrocarbons;
 - NAPL was discovered at multiple excavations;
 - Six excavations remain open to facilitate NAPL recovery;
 - Due to nature of the weather, underground cover line was initiated, and

Describe Area Affected and Cleanup Action Taken.*	
• Area affected is land approximately 25 yards upstream of a concrete stormwater barrier with valve (see attached drawing, red circle). • Approximately 400 barrels of hydrocarbon and water has been recovered using a vacuum truck and processed through the oil water separator. • Excavated soil has been staged on site for proper disposal.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
OIL CONSERVATION DIVISION	
Signature: 	Approved by Environmental Specialist:
Printed Name: Ed Riege	Expiration Date:
Title: Environmental Manager	Approval Date:
F-mail Address: ed.riege@vnmr.com	Conditions of Approval:
Date: 7/11/2013 Phone (505) 722-0217	Attached ☐

* Attach Additional Sheets If Necessary



District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: WESTERN REFINING	Contact: Beck Larsen	
Address: I-40 / EXIT 39, JAMESTOWN, NM 87347	Telephone No. (505) 722-0258	
Facility Name: WESTERN RENINING (GALLUP REFINERY)	Facility Type: Petroleum Refinery	
Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15 N	15 W					MCKINLEY

Latitude _ 35° 02' 024" _ Longitude _ 108° 02' 024" _

NATURE OF RELEASE

Type of Release: Oily Water Mixture (Wastewater) (90% Water/10% Oil estimated)	Volume of Release: 70 bbls (2940 gal)(Oil Water Mixture)(7 bbls Oil)	Volume Recovered: ~ 69 ½ (2925 gal) (Oily Water Mixture)(~7 bbls Oil)
Source of Release: Sewer Cup Drain- Oily Water from Rail Road Rack Sump	Date and Hour of Occurrence 01/15/2013 / 1330 hrs	Date and Hour of Discovery 01/15/2013 / 1330 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMED (HWB)- Kristen Van Horn / OCD – Brandon Powell	
By Whom? Beck Larsen	Date and Hour: 1/16/2012 / NMED (HWB)(1235 hrs)/ OCD (Msg (1205 hrs)	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.* N/A

Describe Cause of Problem and Remedial Action Taken.*

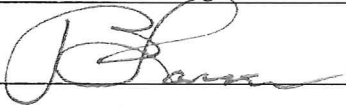
The Oily Water (Wastewater) in the Railroad Rack Sump was being transferred to T-28 through a diversion line via T-105 Sewer Cup. The diversion line was found to be frozen or plugged causing T-105 Sewer Cup at T-105 to overflow onto SWMU #14 (Old API Pit) Area. Western began cleanup operations immediately on 1/15/ 13 @ 1345 hrs.. Western removed the liquids via an onsite vacuum truck.

Describe Area Affected and Cleanup Action Taken.*

The diversionary line caused the Sewer Cup at T-105 overflowed onto SWMU# 14 (Old API Pit Area). Western removed the liquids via an onsite vacuum truck. The vacuum truck removed an estimated ~ 69 ½ bbls (2925 gal) from the area. Area cleanup and cleanup operations were completed on 1/15/2013 at about 16000 hrs.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

OIL CONSERVATION DIVISION

Signature: 	Approved by Environmental Specialist:		
Printed Name: Beck Larsen:			
Title: Environmental Engineer	Approval Date:	Expiration Date:	
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:		Attached ☐
Date: 1/18/2013 Phone: (505) 722-0258			

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action
(AMMENDED on 10-09-13)

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: WESTERN REFINING	Contact: Beck Larsen	
Address: I-40 / EXIT 39, JAMESTOWN, NM 87347	Telephone No. (505) 722-0258	
Facility Name: WESTERN RENING (GALLUP REFINERY)	Facility Type: Petroleum Refinery	
Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15 N	15 W					MCKINLEY

Latitude 35° 029' 024" Longitude 108° 024' 024"

NATURE OF RELEASE

Type of Release: 89 Base Unleaded Gasoline	Volume of Release: 100 bbls	Volume Recovered: 90 -97 bbls (Estimated)
Source of Release: Marketing Tank (T-3) Overflow	Date and Hour of Occurrence: 5/7/13 @ 0645 hrs	Date and Hour of Discovery: 5/07/13 @ 0648 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? (HWB-R. Horowitz (0715 msg), K Vanhorn (0718 msg)); (OCD -C Chavez (0726), Jonathan Kelly (0733))	
By Whom? Beck Larsen	Date and Hour: 5/07/13 0705 hrs	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	
If a Watercourse was Impacted, Describe Fully.* N/A		

Describe Cause of Problem and Remedial Action Taken.*

At about 0648 Marketing Tank (MT-3) began to overflow with 89 Octane unleaded gasoline. The auto-fill was left in hand position and the high level alarm did not work causing the tank to overflow. Offsite personnel shut off the 89 Base Sales Pump at the Rail Rack and began cleanup. ERT members were dispatched at ~ 0700 hrs. Overflow stopped at 0710 hrs. Pump Truck was dispatched to disperse foam over the area. Onsite vacuum truck was dispatched to remove any excess liquid gasoline from area.

Describe Area Affected and Cleanup Action Taken.*

Liquids were removed and initial samples were collected and submitted to an outside laboratory for analysis. An outside contractor was called in to scrape the contaminated affected area in several stages due to rain events. Confirmation samples were collected and submitted for analysis. On-site back-filled material was spread to replace the contaminated material that was removed. Remediated material was put in a roll-off box for disposal. The project was finally concluded on October 8, 2013.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOC rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOC marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOC acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION		
Printed Name: Beck Larsen:	Approved by Environmental Specialist:		
Title: Environmental Engineer	Approval Date:	Expiration Date:	
-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:	Attached ☐	
Date: 10/09/2013	Phone (505) 722-0258		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-141
Revised August 8, 2011

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: WESTERN REFINING	Contact: Beck Larsen	
Address: I-40 / EXIT 39, JAMESTOWN, NM 87347	Telephone No. (505) 722-0258	
Facility Name: WESTERN RENING (GALLUP REFINERY)	Facility Type: Petroleum Refinery	
Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15 N	15 W					MCKINLEY

Latitude 35° 029' 024" Longitude 108° 024' 024"

NATURE OF RELEASE

Type of Release: Kerosene	Volume of Release 15 bbls estimated	Volume Recovered: 13 bbls
Source of Release: Kerosene (KHT Charge Line from T-226 to the KHT Unit)	Date and Hour of Occurrence 09/08/13 @ 1400 hrs	Date and Hour of Discovery 09/08/13 @ 1400 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? (HWB-R. Horowitz, K Vanhorn); (OCD -C Chavez, G von Goten, B Powell)	
By Whom? Beck Larsen	Date and Hour: 9/9/2013 (HWB-R. Horowitz (1100), K Vanhorn (1109)); (OCD -C Chavez (msg 1113), G von Goten (1116), B Powell (msg, 1120))	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.* N/A

Describe Cause of Problem and Remedial Action Taken.*

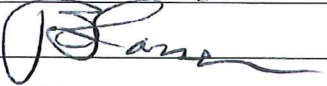
The kerosene rundown (KHT Charge Line) from the T-226 to the KHT Unit was found leaking. The rundown line is a result due to corrosion of an old existing rundown line. The discharge of the KHT Unit was blocked in which stopped the leak. The Fire Department was dispatched as a precautionary measure and covered the area with foam as a standard operating procedure. The onsite vacuum truck was dispatched to remove all hydrocarbon material.

Describe Area Affected and Cleanup Action Taken.*

The area that was affected was along the pipe rack. The discharge of the KHT Unit was blocked in which stopped the leak. The Fire Department was dispatched as a precautionary measure and covered the area with foam as a standard operating procedure. The onsite vacuum truck was dispatched to remove all hydrocarbon material.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

OIL CONSERVATION DIVISION

Signature: 	Approved by Environmental Specialist:	
Printed Name: Beck Larsen:	Approval Date:	Expiration Date:
Title: Environmental Engineer	Conditions of Approval:	
E-mail Address: Thurman.larsen@wnr.com	Attached ☐	
Date: 9/9/13 Phone (505) 722-0258		

Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action
(Tank (T-35) OVERFLOWS from 8-02-13 and 8-04-13 COMBINED EVENTS)

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: WESTERN REFINING	Contact: Beck Larsen
Address: I-40 / EXIT 39, JAMESTOWN, NM 87347	Telephone No. (505) 722-0258
Facility Name: WESTERN REFINING (GALLUP REFINERY)	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	API No.
---------------	---------------	---------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15 N	15 W					MCKINLEY

Latitude 35° 029' 024" Longitude 108° 024' 024"

NATURE OF RELEASE

Type of Release: T-35 Overflows (8/2 and 8/4/13 events)	Volume of Release 19 bbls (oil) (8/2/13) 23 bbls (oil) (8/4/13)	Volume Recovered: In progress In progress from 8/2/13
Source of Release: Unknown; Pending Investigation	Date and Hour of Occurrence 08/02/13 @ 1635 hrs 08/04/13 @ 1655 hrs	Date and Hour of Discovery 08/02/13 @ 1635 hrs 08/04/13 @ 1655 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? 8/02/13 Event- (HWB-R. Horowitz (msg), K Vanhorn (msg)); (OCD -C Chavez (msg), B Powell (msg)) 8/04/13 Event- (HWB-R. Horowitz (msg), K Vanhorn (msg)); (OCD -C Chavez (msg), B Powell)	
By Whom? Beck Larsen	Date and Hour: 8/02/13 Event-Notify on 8/03/13- (HWB-R. Horowitz (msg; 1400), K Vanhorn (msg; 1403)); (OCD -C Chavez (msg; 1352), B Powell; 1356) 8/04/13 Event- Notify on 8/04/13- (HWB-R. Horowitz (msg; 2105), K Vanhorn (msg; 2109)); (OCD -C Chavez (msg; 2103), B Powell; 2100)	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.* N/A

Describe Cause of Problem and Remedial Action Taken.*

On August 2, 2013 at about 1500 hrs a heavy rain storm passed over the refinery. In preparation to this event, charge rates and water was reduced going to T-35. At about 1635 hrs, T-35 began to overflow. Two passed over the area for a total rainfall of 0.6 inches. Vacuum trucks were already onsite to remove as much water as possible in anticipation of this event. Cleanup immediately began to remove oily wastewater. Agency personnel were notified on 8/3/2013 of the 8/2/13 event. On August 4, 2013 at about 1500 another rain event occurred causing T-35 to overflow once again at 1655 hrs. The total rain for this event was about 1.07 inches. Vacuum trucks continued to remove as much water as possible from dike area and T-35. A foam blanket was laid down on area due to LEL issues only as a precaution. Agency personnel were also notified on 8/4/2013 of the 8/4/13 event that occurred. These two events have been treated as one event due to overlapping occurrences and cleanup efforts. All oily wastewater from Tank (T-35) overflows was contained within the containment dike.

Describe Area Affected and Cleanup Action Taken.* All oily wastewater from T-35 overflow was contained within the dike area. Vacuum trucks removed oily wastewater from dike containment area. An outside Contractor removed about 261 tons (~ 380 yd³) of TPH contaminated soil material that was shipped offsite for disposal at Waste Management (Painted Desert, Az). Cleanup was completed on September 29, 2013. Confirmations samples were collected in the area of contamination as required.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:



Printed Name: Beck Larsen

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Title: Environmental Engineer	Approval Date:	Expiration Date:
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:	Attached ☐
Date: 10/8/2013 Phone (505) 722-0258		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: WESTERN REFINING	Contact: Beck Larsen
Address: I-40 / EXIT 39, JAMESTOWN, NM 87347	Telephone No. (505) 722-0258
Facility Name: WESTERN RENING (GALLUP REFINERY)	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	API No.
---------------	---------------	---------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15 N	15 W					MCKINLEY

Latitude 35° 029' 024" Longitude 108° 024' 024"

NATURE OF RELEASE

Type of Release: Kerosene	Volume of Release 7 bbls (oil)	Volume Recovered: 6.5 bbls
Source of Release: Kerosene Rundown Charge Line Bleeder Valve	Date and Hour of Occurrence 09/27/13 @ 1730 hrs	Date and Hour of Discovery 09/27/13 @ 1730 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? (HWB-R. Horowitz (msg), K Vanhorn (msg)); (OCD -C Chavez (msg), B Powell (msg))	
By Whom? Beck Larsen	Date and Hour: 9/28/2013 (HWB-R. Horowitz (msg; 1350), K Vanhorn (msg; 1358)); (OCD -C Chavez (msg; 1402), B Powell (1355))	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

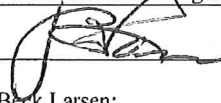
If a Watercourse was Impacted, Describe Fully.* N/A

Describe Cause of Problem and Remedial Action Taken.* On September 27, 2013 at about 1730 hours, the pumper gauger was called to start the KHT Charge Pumps. When we got to the pump, it was found that the bleeder valve was cracked open on the rundown charge line. He immediately blocked in the valve. The off-site supervisor was notified. Maintenance was also notified to dispatch the on-site vacuum truck to vacuum up all kerosene that was released.

Describe Area Affected and Cleanup Action Taken.*

Vacuum Truck was dispatch to clean up Kersoene from ground. The vacuum truck removed as muck kerosene as possible. Some soil removal will be required for total cleanup.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION		
Printed Name: Beck Larsen:	Approved by Environmental Specialist:		
Title: Environmental Engineer	Approval Date:	Expiration Date:	
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:		Attached ☐
Date: <u>10/7/13</u> Phone (505) 722-0258			

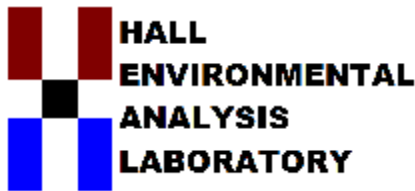
Attach Additional Sheets If Necessary

APPENDIX I

Perimeter Inspections

APPENDIX J

Temporary Land Farm Analytical Data



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

June 14, 2013

Beck Larsen

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0258
FAX (505) 722-0210

RE: OCD Land Farm

OrderNo.: 1305307

Dear Beck Larsen:

Hall Environmental Analysis Laboratory received 8 sample(s) on 5/8/2013 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued May 15, 2013.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Central OCD-01-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013 9:10:00 AM

Lab ID: 1305307-001

Matrix: SOIL

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8082: PCB'S							Analyst: SCC
Aroclor 1016	ND	0.040		mg/Kg	1	5/22/2013 6:33:02 PM	7504
Aroclor 1221	ND	0.040		mg/Kg	1	5/22/2013 6:33:02 PM	7504
Aroclor 1232	ND	0.040		mg/Kg	1	5/22/2013 6:33:02 PM	7504
Aroclor 1242	ND	0.040		mg/Kg	1	5/22/2013 6:33:02 PM	7504
Aroclor 1248	ND	0.040		mg/Kg	1	5/22/2013 6:33:02 PM	7504
Aroclor 1254	ND	0.040		mg/Kg	1	5/22/2013 6:33:02 PM	7504
Aroclor 1260	ND	0.040		mg/Kg	1	5/22/2013 6:33:02 PM	7504
Surr: Decachlorobiphenyl	40.0	31.8-151		%REC	1	5/22/2013 6:33:02 PM	7504
Surr: Tetrachloro-m-xylene	35.2	26.2-144		%REC	1	5/22/2013 6:33:02 PM	7504
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/10/2013 11:41:24 PM	7366
Toluene	ND	0.049		mg/Kg	1	5/10/2013 11:41:24 PM	7366
Ethylbenzene	ND	0.049		mg/Kg	1	5/10/2013 11:41:24 PM	7366
Xylenes, Total	ND	0.098		mg/Kg	1	5/10/2013 11:41:24 PM	7366
Surr: 4-Bromofluorobenzene	98.6	80-120		%REC	1	5/10/2013 11:41:24 PM	7366
EPA METHOD 8310: PAHS							Analyst: SCC
Naphthalene	ND	2.5		mg/Kg	1	5/28/2013 11:21:04 AM	7505
1-Methylnaphthalene	ND	2.5		mg/Kg	1	5/28/2013 11:21:04 AM	7505
2-Methylnaphthalene	ND	2.5		mg/Kg	1	5/28/2013 11:21:04 AM	7505
Acenaphthylene	ND	2.5		mg/Kg	1	5/28/2013 11:21:04 AM	7505
Acenaphthene	ND	2.5		mg/Kg	1	5/28/2013 11:21:04 AM	7505
Fluorene	ND	0.30		mg/Kg	1	5/28/2013 11:21:04 AM	7505
Phenanthrene	ND	0.15		mg/Kg	1	5/28/2013 11:21:04 AM	7505
Anthracene	ND	0.15		mg/Kg	1	5/28/2013 11:21:04 AM	7505
Fluoranthene	ND	0.20		mg/Kg	1	5/28/2013 11:21:04 AM	7505
Pyrene	ND	0.25		mg/Kg	1	5/28/2013 11:21:04 AM	7505
Benz(a)anthracene	ND	0.10		mg/Kg	1	5/28/2013 11:21:04 AM	7505
Chrysene	0.13	0.10		mg/Kg	1	5/28/2013 11:21:04 AM	7505
Benzo(b)fluoranthene	ND	0.10		mg/Kg	1	5/28/2013 11:21:04 AM	7505
Benzo(k)fluoranthene	ND	0.10		mg/Kg	1	5/28/2013 11:21:04 AM	7505
Benzo(a)pyrene	ND	0.10		mg/Kg	1	5/28/2013 11:21:04 AM	7505
Dibenz(a,h)anthracene	ND	0.10		mg/Kg	1	5/28/2013 11:21:04 AM	7505
Benzo(g,h,i)perylene	ND	0.10		mg/Kg	1	5/28/2013 11:21:04 AM	7505
Indeno(1,2,3-cd)pyrene	ND	0.10		mg/Kg	1	5/28/2013 11:21:04 AM	7505
Surr: Benzo(e)pyrene	86.0	36.7-118		%REC	1	5/28/2013 11:21:04 AM	7505
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	5.2	0.30		mg/Kg	1	5/9/2013 2:42:37 PM	7373
Chloride	150	30		mg/Kg	20	5/9/2013 2:55:01 PM	7373
Nitrogen, Nitrate (As N)	14	0.30		mg/Kg	1	5/9/2013 2:42:37 PM	7373

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Central OCD-01-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013 9:10:00 AM

Lab ID: 1305307-001

Matrix: SOIL

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Sulfate	650	30		mg/Kg	20	5/9/2013 2:55:01 PM	7373
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	ND	0.033		mg/Kg	1	5/22/2013 9:13:33 AM	7539
EPA METHOD 6010B: SOIL METALS							Analyst: JLF
Arsenic	ND	12		mg/Kg	5	5/28/2013 10:28:20 AM	7531
Barium	270	1.0		mg/Kg	10	5/28/2013 10:30:56 AM	7531
Cadmium	ND	0.50		mg/Kg	5	5/28/2013 10:28:20 AM	7531
Chromium	19	1.5		mg/Kg	5	5/28/2013 10:28:20 AM	7531
Copper	4.6	1.5		mg/Kg	5	5/28/2013 10:28:20 AM	7531
Iron	22000	500		mg/Kg	500	5/28/2013 10:33:28 AM	7531
Lead	5.6	1.2		mg/Kg	5	5/28/2013 10:28:20 AM	7531
Manganese	390	1.0		mg/Kg	10	5/28/2013 10:30:56 AM	7531
Selenium	ND	12		mg/Kg	5	5/28/2013 10:28:20 AM	7531
Silver	ND	1.2		mg/Kg	5	5/28/2013 10:28:20 AM	7531
Uranium	ND	25		mg/Kg	5	5/28/2013 10:28:20 AM	7531
Zinc	77	12		mg/Kg	5	5/28/2013 10:28:20 AM	7531
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	5/22/2013 5:06:13 PM	7537
2-Chlorophenol	ND	0.40		mg/Kg	1	5/22/2013 5:06:13 PM	7537
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	5/22/2013 5:06:13 PM	7537
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	5/22/2013 5:06:13 PM	7537
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	5/22/2013 5:06:13 PM	7537
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	5/22/2013 5:06:13 PM	7537
2-Methylphenol	ND	1.0		mg/Kg	1	5/22/2013 5:06:13 PM	7537
3+4-Methylphenol	ND	0.40		mg/Kg	1	5/22/2013 5:06:13 PM	7537
2-Nitrophenol	ND	0.40		mg/Kg	1	5/22/2013 5:06:13 PM	7537
4-Nitrophenol	ND	0.50		mg/Kg	1	5/22/2013 5:06:13 PM	7537
Pentachlorophenol	ND	0.80		mg/Kg	1	5/22/2013 5:06:13 PM	7537
Phenol	ND	0.40		mg/Kg	1	5/22/2013 5:06:13 PM	7537
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	5/22/2013 5:06:13 PM	7537
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	5/22/2013 5:06:13 PM	7537
Surr: 2,4,6-Tribromophenol	93.6	40.1-130		%REC	1	5/22/2013 5:06:13 PM	7537
Surr: 2-Fluorobiphenyl	78.2	44.4-123		%REC	1	5/22/2013 5:06:13 PM	7537
Surr: 2-Fluorophenol	71.4	41.9-112		%REC	1	5/22/2013 5:06:13 PM	7537
Surr: 4-Terphenyl-d14	83.6	29.6-130		%REC	1	5/22/2013 5:06:13 PM	7537
Surr: Nitrobenzene-d5	84.8	42.4-132		%REC	1	5/22/2013 5:06:13 PM	7537
Surr: Phenol-d5	74.0	44.3-119		%REC	1	5/22/2013 5:06:13 PM	7537
EPA METHOD 8260B: VOLATILES							Analyst: DAM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 2 of 49

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Central OCD-01-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013 9:10:00 AM

Lab ID: 1305307-001

Matrix: SOIL

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DAM
Benzene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Toluene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Ethylbenzene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Methyl tert-butyl ether (MTBE)	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1,2,4-Trimethylbenzene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1,3,5-Trimethylbenzene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1,2-Dichloroethane (EDC)	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1,2-Dibromoethane (EDB)	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Naphthalene	ND	0.093		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1-Methylnaphthalene	ND	0.19		mg/Kg	1	5/21/2013 1:30:22 AM	7495
2-Methylnaphthalene	ND	0.19		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Acetone	ND	0.70		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Bromobenzene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Bromodichloromethane	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Bromoform	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Bromomethane	ND	0.14		mg/Kg	1	5/21/2013 1:30:22 AM	7495
2-Butanone	ND	0.46		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Carbon disulfide	ND	0.46		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Carbon tetrachloride	ND	0.093		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Chlorobenzene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Chloroethane	ND	0.093		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Chloroform	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Chloromethane	ND	0.14		mg/Kg	1	5/21/2013 1:30:22 AM	7495
2-Chlorotoluene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
4-Chlorotoluene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
cis-1,2-DCE	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
cis-1,3-Dichloropropene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1,2-Dibromo-3-chloropropane	ND	0.093		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Dibromochloromethane	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Dibromomethane	ND	0.093		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1,2-Dichlorobenzene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1,3-Dichlorobenzene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1,4-Dichlorobenzene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Dichlorodifluoromethane	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1,1-Dichloroethane	ND	0.093		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1,1-Dichloroethene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1,2-Dichloropropane	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1,3-Dichloropropane	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
2,2-Dichloropropane	ND	0.093		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1,1-Dichloropropene	ND	0.093		mg/Kg	1	5/21/2013 1:30:22 AM	7495

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Page 3 of 49

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Central OCD-01-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013 9:10:00 AM

Lab ID: 1305307-001

Matrix: SOIL

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DAM
Hexachlorobutadiene	ND	0.093		mg/Kg	1	5/21/2013 1:30:22 AM	7495
2-Hexanone	ND	0.46		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Isopropylbenzene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
4-Isopropyltoluene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
4-Methyl-2-pentanone	ND	0.46		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Methylene chloride	ND	0.14		mg/Kg	1	5/21/2013 1:30:22 AM	7495
n-Butylbenzene	ND	0.14		mg/Kg	1	5/21/2013 1:30:22 AM	7495
n-Propylbenzene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
sec-Butylbenzene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Styrene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
tert-Butylbenzene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1,1,1,2-Tetrachloroethane	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1,1,2,2-Tetrachloroethane	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Tetrachloroethene (PCE)	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
trans-1,2-DCE	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
trans-1,3-Dichloropropene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1,2,3-Trichlorobenzene	ND	0.093		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1,2,4-Trichlorobenzene	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1,1,1-Trichloroethane	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1,1,2-Trichloroethane	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Trichloroethene (TCE)	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Trichlorofluoromethane	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
1,2,3-Trichloropropane	ND	0.093		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Vinyl chloride	ND	0.046		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Xylenes, Total	ND	0.093		mg/Kg	1	5/21/2013 1:30:22 AM	7495
Surr: 1,2-Dichloroethane-d4	86.7	70-130		%REC	1	5/21/2013 1:30:22 AM	7495
Surr: 4-Bromofluorobenzene	83.9	70-130		%REC	1	5/21/2013 1:30:22 AM	7495
Surr: Dibromofluoromethane	87.8	70-130		%REC	1	5/21/2013 1:30:22 AM	7495
Surr: Toluene-d8	96.9	70-130		%REC	1	5/21/2013 1:30:22 AM	7495
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	94	20		mg/Kg	1	5/13/2013	7382

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Central OCD-02-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013 9:45:00 AM

Lab ID: 1305307-002

Matrix: SOIL

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8082: PCB'S							Analyst: SCC
Aroclor 1016	ND	0.10		mg/Kg	1	5/22/2013 7:18:01 PM	7504
Aroclor 1221	ND	0.10		mg/Kg	1	5/22/2013 7:18:01 PM	7504
Aroclor 1232	ND	0.10		mg/Kg	1	5/22/2013 7:18:01 PM	7504
Aroclor 1242	ND	0.10		mg/Kg	1	5/22/2013 7:18:01 PM	7504
Aroclor 1248	ND	0.10		mg/Kg	1	5/22/2013 7:18:01 PM	7504
Aroclor 1254	ND	0.10		mg/Kg	1	5/22/2013 7:18:01 PM	7504
Aroclor 1260	ND	0.10		mg/Kg	1	5/22/2013 7:18:01 PM	7504
Surr: Decachlorobiphenyl	92.0	31.8-151		%REC	1	5/22/2013 7:18:01 PM	7504
Surr: Tetrachloro-m-xylene	80.0	26.2-144		%REC	1	5/22/2013 7:18:01 PM	7504
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/11/2013 12:11:44 AM	7366
Toluene	ND	0.049		mg/Kg	1	5/11/2013 12:11:44 AM	7366
Ethylbenzene	ND	0.049		mg/Kg	1	5/11/2013 12:11:44 AM	7366
Xylenes, Total	ND	0.098		mg/Kg	1	5/11/2013 12:11:44 AM	7366
Surr: 4-Bromofluorobenzene	99.0	80-120		%REC	1	5/11/2013 12:11:44 AM	7366
EPA METHOD 8310: PAHS							Analyst: SCC
Naphthalene	ND	2.5		mg/Kg	1	5/28/2013 11:50:21 AM	7505
1-Methylnaphthalene	ND	2.5		mg/Kg	1	5/28/2013 11:50:21 AM	7505
2-Methylnaphthalene	ND	2.5		mg/Kg	1	5/28/2013 11:50:21 AM	7505
Acenaphthylene	ND	2.5		mg/Kg	1	5/28/2013 11:50:21 AM	7505
Acenaphthene	ND	2.5		mg/Kg	1	5/28/2013 11:50:21 AM	7505
Fluorene	ND	0.30		mg/Kg	1	5/28/2013 11:50:21 AM	7505
Phenanthrene	0.26	0.15		mg/Kg	1	5/28/2013 11:50:21 AM	7505
Anthracene	ND	0.15		mg/Kg	1	5/28/2013 11:50:21 AM	7505
Fluoranthene	ND	0.20		mg/Kg	1	5/28/2013 11:50:21 AM	7505
Pyrene	ND	0.25		mg/Kg	1	5/28/2013 11:50:21 AM	7505
Benz(a)anthracene	ND	0.10		mg/Kg	1	5/28/2013 11:50:21 AM	7505
Chrysene	0.44	0.10		mg/Kg	1	5/28/2013 11:50:21 AM	7505
Benzo(b)fluoranthene	0.10	0.10		mg/Kg	1	5/28/2013 11:50:21 AM	7505
Benzo(k)fluoranthene	ND	0.10		mg/Kg	1	5/28/2013 11:50:21 AM	7505
Benzo(a)pyrene	ND	0.10		mg/Kg	1	5/28/2013 11:50:21 AM	7505
Dibenz(a,h)anthracene	ND	0.10		mg/Kg	1	5/28/2013 11:50:21 AM	7505
Benzo(g,h,i)perylene	0.13	0.10		mg/Kg	1	5/28/2013 11:50:21 AM	7505
Indeno(1,2,3-cd)pyrene	0.13	0.10		mg/Kg	1	5/28/2013 11:50:21 AM	7505
Surr: Benzo(e)pyrene	114	36.7-118		%REC	1	5/28/2013 11:50:21 AM	7505
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	4.5	0.30		mg/Kg	1	5/9/2013 3:07:25 PM	7373
Chloride	670	30		mg/Kg	20	5/9/2013 3:19:50 PM	7373
Nitrogen, Nitrate (As N)	13	0.30		mg/Kg	1	5/9/2013 3:07:25 PM	7373

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 5 of 49

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Central OCD-02-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013 9:45:00 AM

Lab ID: 1305307-002

Matrix: SOIL

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Sulfate	450	30		mg/Kg	20	5/9/2013 3:19:50 PM	7373
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	ND	0.033		mg/Kg	1	5/22/2013 9:15:20 AM	7539
EPA METHOD 6010B: SOIL METALS							Analyst: JLF
Arsenic	ND	12		mg/Kg	5	5/28/2013 10:36:12 AM	7531
Barium	280	1.0		mg/Kg	10	5/28/2013 10:39:02 AM	7531
Cadmium	ND	0.50		mg/Kg	5	5/28/2013 10:36:12 AM	7531
Chromium	19	1.5		mg/Kg	5	5/28/2013 10:36:12 AM	7531
Copper	2.8	1.5		mg/Kg	5	5/28/2013 10:36:12 AM	7531
Iron	22000	500		mg/Kg	500	5/28/2013 10:41:34 AM	7531
Lead	9.6	1.2		mg/Kg	5	5/28/2013 10:36:12 AM	7531
Manganese	380	1.0		mg/Kg	10	5/28/2013 10:39:02 AM	7531
Selenium	ND	12		mg/Kg	5	5/28/2013 10:36:12 AM	7531
Silver	ND	1.2		mg/Kg	5	5/28/2013 10:36:12 AM	7531
Uranium	ND	25		mg/Kg	5	5/28/2013 10:36:12 AM	7531
Zinc	33	12		mg/Kg	5	5/28/2013 10:36:12 AM	7531
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	5/22/2013 5:37:26 PM	7537
2-Chlorophenol	ND	0.40		mg/Kg	1	5/22/2013 5:37:26 PM	7537
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	5/22/2013 5:37:26 PM	7537
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	5/22/2013 5:37:26 PM	7537
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	5/22/2013 5:37:26 PM	7537
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	5/22/2013 5:37:26 PM	7537
2-Methylphenol	ND	1.0		mg/Kg	1	5/22/2013 5:37:26 PM	7537
3+4-Methylphenol	ND	0.40		mg/Kg	1	5/22/2013 5:37:26 PM	7537
2-Nitrophenol	ND	0.40		mg/Kg	1	5/22/2013 5:37:26 PM	7537
4-Nitrophenol	ND	0.50		mg/Kg	1	5/22/2013 5:37:26 PM	7537
Pentachlorophenol	ND	0.80		mg/Kg	1	5/22/2013 5:37:26 PM	7537
Phenol	ND	0.40		mg/Kg	1	5/22/2013 5:37:26 PM	7537
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	5/22/2013 5:37:26 PM	7537
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	5/22/2013 5:37:26 PM	7537
Surr: 2,4,6-Tribromophenol	90.1	40.1-130		%REC	1	5/22/2013 5:37:26 PM	7537
Surr: 2-Fluorobiphenyl	74.7	44.4-123		%REC	1	5/22/2013 5:37:26 PM	7537
Surr: 2-Fluorophenol	70.3	41.9-112		%REC	1	5/22/2013 5:37:26 PM	7537
Surr: 4-Terphenyl-d14	79.0	29.6-130		%REC	1	5/22/2013 5:37:26 PM	7537
Surr: Nitrobenzene-d5	82.9	42.4-132		%REC	1	5/22/2013 5:37:26 PM	7537
Surr: Phenol-d5	70.8	44.3-119		%REC	1	5/22/2013 5:37:26 PM	7537
EPA METHOD 8260B: VOLATILES							Analyst: DAM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Central OCD-02-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013 9:45:00 AM

Lab ID: 1305307-002

Matrix: SOIL

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DAM
Benzene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Toluene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Ethylbenzene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Methyl tert-butyl ether (MTBE)	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1,2,4-Trimethylbenzene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1,3,5-Trimethylbenzene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1,2-Dichloroethane (EDC)	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1,2-Dibromoethane (EDB)	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Naphthalene	ND	0.095		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1-Methylnaphthalene	ND	0.19		mg/Kg	1	5/21/2013 1:59:29 AM	7495
2-Methylnaphthalene	ND	0.19		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Acetone	ND	0.71		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Bromobenzene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Bromodichloromethane	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Bromoform	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Bromomethane	ND	0.14		mg/Kg	1	5/21/2013 1:59:29 AM	7495
2-Butanone	ND	0.48		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Carbon disulfide	ND	0.48		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Carbon tetrachloride	ND	0.095		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Chlorobenzene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Chloroethane	ND	0.095		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Chloroform	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Chloromethane	ND	0.14		mg/Kg	1	5/21/2013 1:59:29 AM	7495
2-Chlorotoluene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
4-Chlorotoluene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
cis-1,2-DCE	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
cis-1,3-Dichloropropene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1,2-Dibromo-3-chloropropane	ND	0.095		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Dibromochloromethane	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Dibromomethane	ND	0.095		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1,2-Dichlorobenzene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1,3-Dichlorobenzene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1,4-Dichlorobenzene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Dichlorodifluoromethane	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1,1-Dichloroethane	ND	0.095		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1,1-Dichloroethene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1,2-Dichloropropane	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1,3-Dichloropropane	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
2,2-Dichloropropane	ND	0.095		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1,1-Dichloropropene	ND	0.095		mg/Kg	1	5/21/2013 1:59:29 AM	7495

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Page 7 of 49

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Central OCD-02-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013 9:45:00 AM

Lab ID: 1305307-002

Matrix: SOIL

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DAM
Hexachlorobutadiene	ND	0.095		mg/Kg	1	5/21/2013 1:59:29 AM	7495
2-Hexanone	ND	0.48		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Isopropylbenzene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
4-Isopropyltoluene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
4-Methyl-2-pentanone	ND	0.48		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Methylene chloride	ND	0.14		mg/Kg	1	5/21/2013 1:59:29 AM	7495
n-Butylbenzene	ND	0.14		mg/Kg	1	5/21/2013 1:59:29 AM	7495
n-Propylbenzene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
sec-Butylbenzene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Styrene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
tert-Butylbenzene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1,1,1,2-Tetrachloroethane	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1,1,2,2-Tetrachloroethane	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Tetrachloroethene (PCE)	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
trans-1,2-DCE	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
trans-1,3-Dichloropropene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1,2,3-Trichlorobenzene	ND	0.095		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1,2,4-Trichlorobenzene	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1,1,1-Trichloroethane	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1,1,2-Trichloroethane	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Trichloroethene (TCE)	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Trichlorofluoromethane	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
1,2,3-Trichloropropane	ND	0.095		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Vinyl chloride	ND	0.048		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Xylenes, Total	ND	0.095		mg/Kg	1	5/21/2013 1:59:29 AM	7495
Surr: 1,2-Dichloroethane-d4	87.8	70-130		%REC	1	5/21/2013 1:59:29 AM	7495
Surr: 4-Bromofluorobenzene	83.7	70-130		%REC	1	5/21/2013 1:59:29 AM	7495
Surr: Dibromofluoromethane	93.5	70-130		%REC	1	5/21/2013 1:59:29 AM	7495
Surr: Toluene-d8	94.9	70-130		%REC	1	5/21/2013 1:59:29 AM	7495
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	740	20		mg/Kg	1	5/13/2013	7382

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Central OCD-03-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013 10:10:00 AM

Lab ID: 1305307-003

Matrix: SOIL

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8082: PCB'S							Analyst: SCC
Aroclor 1016	ND	0.020		mg/Kg	1	5/22/2013 8:00:02 PM	7504
Aroclor 1221	ND	0.020		mg/Kg	1	5/22/2013 8:00:02 PM	7504
Aroclor 1232	ND	0.020		mg/Kg	1	5/22/2013 8:00:02 PM	7504
Aroclor 1242	ND	0.020		mg/Kg	1	5/22/2013 8:00:02 PM	7504
Aroclor 1248	ND	0.020		mg/Kg	1	5/22/2013 8:00:02 PM	7504
Aroclor 1254	ND	0.020		mg/Kg	1	5/22/2013 8:00:02 PM	7504
Aroclor 1260	ND	0.020		mg/Kg	1	5/22/2013 8:00:02 PM	7504
Surr: Decachlorobiphenyl	62.8	31.8-151		%REC	1	5/22/2013 8:00:02 PM	7504
Surr: Tetrachloro-m-xylene	54.8	26.2-144		%REC	1	5/22/2013 8:00:02 PM	7504
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	5/11/2013 12:42:01 AM	7366
Toluene	ND	0.048		mg/Kg	1	5/11/2013 12:42:01 AM	7366
Ethylbenzene	ND	0.048		mg/Kg	1	5/11/2013 12:42:01 AM	7366
Xylenes, Total	ND	0.095		mg/Kg	1	5/11/2013 12:42:01 AM	7366
Surr: 4-Bromofluorobenzene	98.2	80-120		%REC	1	5/11/2013 12:42:01 AM	7366
EPA METHOD 8310: PAHS							Analyst: SCC
Naphthalene	ND	1.3		mg/Kg	5	5/28/2013 12:19:38 PM	7505
1-Methylnaphthalene	ND	1.3		mg/Kg	5	5/28/2013 12:19:38 PM	7505
2-Methylnaphthalene	ND	1.3		mg/Kg	5	5/28/2013 12:19:38 PM	7505
Acenaphthylene	ND	1.3		mg/Kg	5	5/28/2013 12:19:38 PM	7505
Acenaphthene	ND	1.3		mg/Kg	5	5/28/2013 12:19:38 PM	7505
Fluorene	ND	0.15		mg/Kg	5	5/28/2013 12:19:38 PM	7505
Phenanthrene	ND	0.075		mg/Kg	5	5/28/2013 12:19:38 PM	7505
Anthracene	ND	0.075		mg/Kg	5	5/28/2013 12:19:38 PM	7505
Fluoranthene	ND	0.10		mg/Kg	5	5/28/2013 12:19:38 PM	7505
Pyrene	ND	0.13		mg/Kg	5	5/28/2013 12:19:38 PM	7505
Benz(a)anthracene	ND	0.050		mg/Kg	5	5/28/2013 12:19:38 PM	7505
Chrysene	ND	0.050		mg/Kg	5	5/28/2013 12:19:38 PM	7505
Benzo(b)fluoranthene	ND	0.050		mg/Kg	5	5/28/2013 12:19:38 PM	7505
Benzo(k)fluoranthene	ND	0.050		mg/Kg	5	5/28/2013 12:19:38 PM	7505
Benzo(a)pyrene	ND	0.050		mg/Kg	5	5/28/2013 12:19:38 PM	7505
Dibenz(a,h)anthracene	ND	0.050		mg/Kg	5	5/28/2013 12:19:38 PM	7505
Benzo(g,h,i)perylene	ND	0.050		mg/Kg	5	5/28/2013 12:19:38 PM	7505
Indeno(1,2,3-cd)pyrene	ND	0.050		mg/Kg	5	5/28/2013 12:19:38 PM	7505
Surr: Benzo(e)pyrene	92.5	36.7-118		%REC	5	5/28/2013 12:19:38 PM	7505
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	2.7	0.30		mg/Kg	1	5/9/2013 3:32:14 PM	7373
Chloride	280	30		mg/Kg	20	5/9/2013 3:44:38 PM	7373
Nitrogen, Nitrate (As N)	0.34	0.30		mg/Kg	1	5/9/2013 3:32:14 PM	7373

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 9 of 49

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Central OCD-03-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013 10:10:00 AM

Lab ID: 1305307-003

Matrix: SOIL

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Sulfate	530	30		mg/Kg	20	5/9/2013 3:44:38 PM	7373
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	ND	0.033		mg/Kg	1	5/22/2013 9:17:09 AM	7539
EPA METHOD 6010B: SOIL METALS							Analyst: JLF
Arsenic	ND	12		mg/Kg	5	5/28/2013 10:54:08 AM	7531
Barium	290	1.0		mg/Kg	10	5/28/2013 10:56:38 AM	7531
Cadmium	ND	0.50		mg/Kg	5	5/28/2013 10:54:08 AM	7531
Chromium	18	1.5		mg/Kg	5	5/28/2013 10:54:08 AM	7531
Copper	4.6	1.5		mg/Kg	5	5/31/2013 4:32:11 PM	7531
Iron	21000	500		mg/Kg	500	5/28/2013 10:59:09 AM	7531
Lead	3.2	1.2		mg/Kg	5	5/28/2013 10:54:08 AM	7531
Manganese	380	1.0		mg/Kg	10	5/28/2013 10:56:38 AM	7531
Selenium	ND	12		mg/Kg	5	5/28/2013 10:54:08 AM	7531
Silver	ND	1.2		mg/Kg	5	5/28/2013 10:54:08 AM	7531
Uranium	ND	25		mg/Kg	5	5/28/2013 10:54:08 AM	7531
Zinc	31	12		mg/Kg	5	5/28/2013 10:54:08 AM	7531
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	5/22/2013 6:08:31 PM	7537
2-Chlorophenol	ND	0.20		mg/Kg	1	5/22/2013 6:08:31 PM	7537
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	5/22/2013 6:08:31 PM	7537
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	5/22/2013 6:08:31 PM	7537
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	5/22/2013 6:08:31 PM	7537
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	5/22/2013 6:08:31 PM	7537
2-Methylphenol	ND	0.50		mg/Kg	1	5/22/2013 6:08:31 PM	7537
3+4-Methylphenol	ND	0.20		mg/Kg	1	5/22/2013 6:08:31 PM	7537
2-Nitrophenol	ND	0.20		mg/Kg	1	5/22/2013 6:08:31 PM	7537
4-Nitrophenol	ND	0.25		mg/Kg	1	5/22/2013 6:08:31 PM	7537
Pentachlorophenol	ND	0.40		mg/Kg	1	5/22/2013 6:08:31 PM	7537
Phenol	ND	0.20		mg/Kg	1	5/22/2013 6:08:31 PM	7537
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	5/22/2013 6:08:31 PM	7537
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	5/22/2013 6:08:31 PM	7537
Surr: 2,4,6-Tribromophenol	86.6	40.1-130		%REC	1	5/22/2013 6:08:31 PM	7537
Surr: 2-Fluorobiphenyl	78.3	44.4-123		%REC	1	5/22/2013 6:08:31 PM	7537
Surr: 2-Fluorophenol	60.6	41.9-112		%REC	1	5/22/2013 6:08:31 PM	7537
Surr: 4-Terphenyl-d14	78.9	29.6-130		%REC	1	5/22/2013 6:08:31 PM	7537
Surr: Nitrobenzene-d5	82.0	42.4-132		%REC	1	5/22/2013 6:08:31 PM	7537
Surr: Phenol-d5	72.1	44.3-119		%REC	1	5/22/2013 6:08:31 PM	7537
EPA METHOD 8260B: VOLATILES							Analyst: DAM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 10 of 49

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Central OCD-03-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013 10:10:00 AM

Lab ID: 1305307-003

Matrix: SOIL

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DAM
Benzene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Toluene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Ethylbenzene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Methyl tert-butyl ether (MTBE)	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1,2,4-Trimethylbenzene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1,3,5-Trimethylbenzene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1,2-Dichloroethane (EDC)	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1,2-Dibromoethane (EDB)	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Naphthalene	ND	0.093		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1-Methylnaphthalene	ND	0.19		mg/Kg	1	5/21/2013 2:28:09 AM	7495
2-Methylnaphthalene	ND	0.19		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Acetone	ND	0.69		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Bromobenzene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Bromodichloromethane	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Bromoform	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Bromomethane	ND	0.14		mg/Kg	1	5/21/2013 2:28:09 AM	7495
2-Butanone	ND	0.46		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Carbon disulfide	ND	0.46		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Carbon tetrachloride	ND	0.093		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Chlorobenzene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Chloroethane	ND	0.093		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Chloroform	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Chloromethane	ND	0.14		mg/Kg	1	5/21/2013 2:28:09 AM	7495
2-Chlorotoluene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
4-Chlorotoluene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
cis-1,2-DCE	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
cis-1,3-Dichloropropene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1,2-Dibromo-3-chloropropane	ND	0.093		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Dibromochloromethane	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Dibromomethane	ND	0.093		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1,2-Dichlorobenzene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1,3-Dichlorobenzene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1,4-Dichlorobenzene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Dichlorodifluoromethane	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1,1-Dichloroethane	ND	0.093		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1,1-Dichloroethene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1,2-Dichloropropane	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1,3-Dichloropropane	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
2,2-Dichloropropane	ND	0.093		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1,1-Dichloropropene	ND	0.093		mg/Kg	1	5/21/2013 2:28:09 AM	7495

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Central OCD-03-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013 10:10:00 AM

Lab ID: 1305307-003

Matrix: SOIL

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DAM
Hexachlorobutadiene	ND	0.093		mg/Kg	1	5/21/2013 2:28:09 AM	7495
2-Hexanone	ND	0.46		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Isopropylbenzene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
4-Isopropyltoluene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
4-Methyl-2-pentanone	ND	0.46		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Methylene chloride	ND	0.14		mg/Kg	1	5/21/2013 2:28:09 AM	7495
n-Butylbenzene	ND	0.14		mg/Kg	1	5/21/2013 2:28:09 AM	7495
n-Propylbenzene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
sec-Butylbenzene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Styrene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
tert-Butylbenzene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1,1,1,2-Tetrachloroethane	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1,1,2,2-Tetrachloroethane	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Tetrachloroethene (PCE)	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
trans-1,2-DCE	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
trans-1,3-Dichloropropene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1,2,3-Trichlorobenzene	ND	0.093		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1,2,4-Trichlorobenzene	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1,1,1-Trichloroethane	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1,1,2-Trichloroethane	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Trichloroethene (TCE)	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Trichlorofluoromethane	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
1,2,3-Trichloropropane	ND	0.093		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Vinyl chloride	ND	0.046		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Xylenes, Total	ND	0.093		mg/Kg	1	5/21/2013 2:28:09 AM	7495
Surr: 1,2-Dichloroethane-d4	85.4	70-130		%REC	1	5/21/2013 2:28:09 AM	7495
Surr: 4-Bromofluorobenzene	86.7	70-130		%REC	1	5/21/2013 2:28:09 AM	7495
Surr: Dibromofluoromethane	92.7	70-130		%REC	1	5/21/2013 2:28:09 AM	7495
Surr: Toluene-d8	97.1	70-130		%REC	1	5/21/2013 2:28:09 AM	7495
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/13/2013	7382

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Central OCD-04-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013 11:05:00 AM

Lab ID: 1305307-004

Matrix: SOIL

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8082: PCB'S							Analyst: SCC
Aroclor 1016	ND	0.020		mg/Kg	1	5/22/2013 9:39:40 PM	7504
Aroclor 1221	ND	0.020		mg/Kg	1	5/22/2013 9:39:40 PM	7504
Aroclor 1232	ND	0.020		mg/Kg	1	5/22/2013 9:39:40 PM	7504
Aroclor 1242	ND	0.020		mg/Kg	1	5/22/2013 9:39:40 PM	7504
Aroclor 1248	ND	0.020		mg/Kg	1	5/22/2013 9:39:40 PM	7504
Aroclor 1254	ND	0.020		mg/Kg	1	5/22/2013 9:39:40 PM	7504
Aroclor 1260	ND	0.020		mg/Kg	1	5/22/2013 9:39:40 PM	7504
Surr: Decachlorobiphenyl	121	31.8-151		%REC	1	5/22/2013 9:39:40 PM	7504
Surr: Tetrachloro-m-xylene	97.2	26.2-144		%REC	1	5/22/2013 9:39:40 PM	7504
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/11/2013 1:12:12 AM	7366
Toluene	ND	0.049		mg/Kg	1	5/11/2013 1:12:12 AM	7366
Ethylbenzene	ND	0.049		mg/Kg	1	5/11/2013 1:12:12 AM	7366
Xylenes, Total	ND	0.097		mg/Kg	1	5/11/2013 1:12:12 AM	7366
Surr: 4-Bromofluorobenzene	99.6	80-120		%REC	1	5/11/2013 1:12:12 AM	7366
EPA METHOD 8310: PAHS							Analyst: SCC
Naphthalene	ND	1.3		mg/Kg	5	5/28/2013 12:48:55 PM	7505
1-Methylnaphthalene	ND	1.3		mg/Kg	5	5/28/2013 12:48:55 PM	7505
2-Methylnaphthalene	ND	1.3		mg/Kg	5	5/28/2013 12:48:55 PM	7505
Acenaphthylene	ND	1.3		mg/Kg	5	5/28/2013 12:48:55 PM	7505
Acenaphthene	ND	1.3		mg/Kg	5	5/28/2013 12:48:55 PM	7505
Fluorene	ND	0.15		mg/Kg	5	5/28/2013 12:48:55 PM	7505
Phenanthrene	ND	0.075		mg/Kg	5	5/28/2013 12:48:55 PM	7505
Anthracene	ND	0.075		mg/Kg	5	5/28/2013 12:48:55 PM	7505
Fluoranthene	ND	0.10		mg/Kg	5	5/28/2013 12:48:55 PM	7505
Pyrene	ND	0.13		mg/Kg	5	5/28/2013 12:48:55 PM	7505
Benz(a)anthracene	ND	0.050		mg/Kg	5	5/28/2013 12:48:55 PM	7505
Chrysene	ND	0.050		mg/Kg	5	5/28/2013 12:48:55 PM	7505
Benzo(b)fluoranthene	ND	0.050		mg/Kg	5	5/28/2013 12:48:55 PM	7505
Benzo(k)fluoranthene	ND	0.050		mg/Kg	5	5/28/2013 12:48:55 PM	7505
Benzo(a)pyrene	ND	0.050		mg/Kg	5	5/28/2013 12:48:55 PM	7505
Dibenz(a,h)anthracene	ND	0.050		mg/Kg	5	5/28/2013 12:48:55 PM	7505
Benzo(g,h,i)perylene	ND	0.050		mg/Kg	5	5/28/2013 12:48:55 PM	7505
Indeno(1,2,3-cd)pyrene	ND	0.050		mg/Kg	5	5/28/2013 12:48:55 PM	7505
Surr: Benzo(e)pyrene	115	36.7-118		%REC	5	5/28/2013 12:48:55 PM	7505
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	3.7	1.5		mg/Kg	5	5/9/2013 3:57:02 PM	7373
Chloride	180	7.5		mg/Kg	5	5/9/2013 3:57:02 PM	7373
Nitrogen, Nitrate (As N)	14	1.5		mg/Kg	5	5/9/2013 3:57:02 PM	7373

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Central OCD-04-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013 11:05:00 AM

Lab ID: 1305307-004

Matrix: SOIL

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Sulfate	570	7.5		mg/Kg	5	5/9/2013 3:57:02 PM	7373
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	ND	0.033		mg/Kg	1	5/22/2013 9:22:40 AM	7539
EPA METHOD 6010B: SOIL METALS							Analyst: JLF
Arsenic	ND	12		mg/Kg	5	5/28/2013 11:01:50 AM	7531
Barium	140	2.0		mg/Kg	20	5/31/2013 4:46:38 PM	7531
Cadmium	ND	0.50		mg/Kg	5	5/28/2013 11:01:50 AM	7531
Chromium	14	1.5		mg/Kg	5	5/28/2013 11:01:50 AM	7531
Copper	3.7	1.5		mg/Kg	5	5/31/2013 4:34:59 PM	7531
Iron	17000	500		mg/Kg	500	5/28/2013 11:14:35 AM	7531
Lead	1.8	1.2		mg/Kg	5	5/28/2013 11:01:50 AM	7531
Manganese	560	2.0		mg/Kg	20	5/31/2013 4:46:38 PM	7531
Selenium	ND	12		mg/Kg	5	5/31/2013 4:34:59 PM	7531
Silver	ND	1.2		mg/Kg	5	5/28/2013 11:01:50 AM	7531
Uranium	ND	25		mg/Kg	5	5/28/2013 11:01:50 AM	7531
Zinc	21	12		mg/Kg	5	5/28/2013 11:01:50 AM	7531
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	5/22/2013 6:39:33 PM	7537
2-Chlorophenol	ND	0.20		mg/Kg	1	5/22/2013 6:39:33 PM	7537
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	5/22/2013 6:39:33 PM	7537
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	5/22/2013 6:39:33 PM	7537
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	5/22/2013 6:39:33 PM	7537
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	5/22/2013 6:39:33 PM	7537
2-Methylphenol	ND	0.50		mg/Kg	1	5/22/2013 6:39:33 PM	7537
3+4-Methylphenol	ND	0.20		mg/Kg	1	5/22/2013 6:39:33 PM	7537
2-Nitrophenol	ND	0.20		mg/Kg	1	5/22/2013 6:39:33 PM	7537
4-Nitrophenol	ND	0.25		mg/Kg	1	5/22/2013 6:39:33 PM	7537
Pentachlorophenol	ND	0.40		mg/Kg	1	5/22/2013 6:39:33 PM	7537
Phenol	ND	0.20		mg/Kg	1	5/22/2013 6:39:33 PM	7537
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	5/22/2013 6:39:33 PM	7537
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	5/22/2013 6:39:33 PM	7537
Surr: 2,4,6-Tribromophenol	79.4	40.1-130		%REC	1	5/22/2013 6:39:33 PM	7537
Surr: 2-Fluorobiphenyl	68.8	44.4-123		%REC	1	5/22/2013 6:39:33 PM	7537
Surr: 2-Fluorophenol	54.0	41.9-112		%REC	1	5/22/2013 6:39:33 PM	7537
Surr: 4-Terphenyl-d14	75.6	29.6-130		%REC	1	5/22/2013 6:39:33 PM	7537
Surr: Nitrobenzene-d5	67.3	42.4-132		%REC	1	5/22/2013 6:39:33 PM	7537
Surr: Phenol-d5	68.0	44.3-119		%REC	1	5/22/2013 6:39:33 PM	7537
EPA METHOD 8260B: VOLATILES							Analyst: DAM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Central OCD-04-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013 11:05:00 AM

Lab ID: 1305307-004

Matrix: SOIL

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DAM
Benzene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Toluene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Ethylbenzene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Methyl tert-butyl ether (MTBE)	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1,2,4-Trimethylbenzene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1,3,5-Trimethylbenzene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1,2-Dichloroethane (EDC)	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1,2-Dibromoethane (EDB)	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Naphthalene	ND	0.093		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1-Methylnaphthalene	ND	0.19		mg/Kg	1	5/21/2013 2:56:25 AM	7495
2-Methylnaphthalene	ND	0.19		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Acetone	ND	0.69		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Bromobenzene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Bromodichloromethane	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Bromoform	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Bromomethane	ND	0.14		mg/Kg	1	5/21/2013 2:56:25 AM	7495
2-Butanone	ND	0.46		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Carbon disulfide	ND	0.46		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Carbon tetrachloride	ND	0.093		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Chlorobenzene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Chloroethane	ND	0.093		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Chloroform	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Chloromethane	ND	0.14		mg/Kg	1	5/21/2013 2:56:25 AM	7495
2-Chlorotoluene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
4-Chlorotoluene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
cis-1,2-DCE	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
cis-1,3-Dichloropropene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1,2-Dibromo-3-chloropropane	ND	0.093		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Dibromochloromethane	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Dibromomethane	ND	0.093		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1,2-Dichlorobenzene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1,3-Dichlorobenzene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1,4-Dichlorobenzene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Dichlorodifluoromethane	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1,1-Dichloroethane	ND	0.093		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1,1-Dichloroethene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1,2-Dichloropropane	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1,3-Dichloropropane	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
2,2-Dichloropropane	ND	0.093		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1,1-Dichloropropene	ND	0.093		mg/Kg	1	5/21/2013 2:56:25 AM	7495

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Page 15 of 49

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Central OCD-04-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013 11:05:00 AM

Lab ID: 1305307-004

Matrix: SOIL

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DAM
Hexachlorobutadiene	ND	0.093		mg/Kg	1	5/21/2013 2:56:25 AM	7495
2-Hexanone	ND	0.46		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Isopropylbenzene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
4-Isopropyltoluene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
4-Methyl-2-pentanone	ND	0.46		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Methylene chloride	ND	0.14		mg/Kg	1	5/21/2013 2:56:25 AM	7495
n-Butylbenzene	ND	0.14		mg/Kg	1	5/21/2013 2:56:25 AM	7495
n-Propylbenzene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
sec-Butylbenzene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Styrene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
tert-Butylbenzene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1,1,1,2-Tetrachloroethane	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1,1,2,2-Tetrachloroethane	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Tetrachloroethene (PCE)	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
trans-1,2-DCE	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
trans-1,3-Dichloropropene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1,2,3-Trichlorobenzene	ND	0.093		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1,2,4-Trichlorobenzene	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1,1,1-Trichloroethane	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1,1,2-Trichloroethane	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Trichloroethene (TCE)	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Trichlorofluoromethane	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
1,2,3-Trichloropropane	ND	0.093		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Vinyl chloride	ND	0.046		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Xylenes, Total	ND	0.093		mg/Kg	1	5/21/2013 2:56:25 AM	7495
Surr: 1,2-Dichloroethane-d4	86.0	70-130		%REC	1	5/21/2013 2:56:25 AM	7495
Surr: 4-Bromofluorobenzene	84.5	70-130		%REC	1	5/21/2013 2:56:25 AM	7495
Surr: Dibromofluoromethane	91.6	70-130		%REC	1	5/21/2013 2:56:25 AM	7495
Surr: Toluene-d8	93.4	70-130		%REC	1	5/21/2013 2:56:25 AM	7495
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/13/2013	7382

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Page 16 of 49

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013

Lab ID: 1305307-007

Matrix: SOIL

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8082: PCB'S							Analyst: SCC
Aroclor 1016	ND	0.020		mg/Kg	1	5/22/2013 11:55:34 PM	7504
Aroclor 1221	ND	0.020		mg/Kg	1	5/22/2013 11:55:34 PM	7504
Aroclor 1232	ND	0.020		mg/Kg	1	5/22/2013 11:55:34 PM	7504
Aroclor 1242	ND	0.020		mg/Kg	1	5/22/2013 11:55:34 PM	7504
Aroclor 1248	ND	0.020		mg/Kg	1	5/22/2013 11:55:34 PM	7504
Aroclor 1254	ND	0.020		mg/Kg	1	5/22/2013 11:55:34 PM	7504
Aroclor 1260	ND	0.020		mg/Kg	1	5/22/2013 11:55:34 PM	7504
Surr: Decachlorobiphenyl	121	31.8-151		%REC	1	5/22/2013 11:55:34 PM	7504
Surr: Tetrachloro-m-xylene	110	26.2-144		%REC	1	5/22/2013 11:55:34 PM	7504
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	5/11/2013 2:42:54 AM	7366
Toluene	ND	0.048		mg/Kg	1	5/11/2013 2:42:54 AM	7366
Ethylbenzene	ND	0.048		mg/Kg	1	5/11/2013 2:42:54 AM	7366
Xylenes, Total	ND	0.096		mg/Kg	1	5/11/2013 2:42:54 AM	7366
Surr: 4-Bromofluorobenzene	96.8	80-120		%REC	1	5/11/2013 2:42:54 AM	7366
EPA METHOD 8310: PAHS							Analyst: SCC
Naphthalene	ND	1.2		mg/Kg	5	5/28/2013 1:18:13 PM	7505
1-Methylnaphthalene	ND	1.2		mg/Kg	5	5/28/2013 1:18:13 PM	7505
2-Methylnaphthalene	ND	1.2		mg/Kg	5	5/28/2013 1:18:13 PM	7505
Acenaphthylene	ND	1.2		mg/Kg	5	5/28/2013 1:18:13 PM	7505
Acenaphthene	ND	1.2		mg/Kg	5	5/28/2013 1:18:13 PM	7505
Fluorene	ND	0.15		mg/Kg	5	5/28/2013 1:18:13 PM	7505
Phenanthrene	ND	0.075		mg/Kg	5	5/28/2013 1:18:13 PM	7505
Anthracene	ND	0.075		mg/Kg	5	5/28/2013 1:18:13 PM	7505
Fluoranthene	ND	0.099		mg/Kg	5	5/28/2013 1:18:13 PM	7505
Pyrene	ND	0.12		mg/Kg	5	5/28/2013 1:18:13 PM	7505
Benz(a)anthracene	ND	0.050		mg/Kg	5	5/28/2013 1:18:13 PM	7505
Chrysene	ND	0.050		mg/Kg	5	5/28/2013 1:18:13 PM	7505
Benzo(b)fluoranthene	ND	0.050		mg/Kg	5	5/28/2013 1:18:13 PM	7505
Benzo(k)fluoranthene	ND	0.050		mg/Kg	5	5/28/2013 1:18:13 PM	7505
Benzo(a)pyrene	ND	0.050		mg/Kg	5	5/28/2013 1:18:13 PM	7505
Dibenz(a,h)anthracene	ND	0.050		mg/Kg	5	5/28/2013 1:18:13 PM	7505
Benzo(g,h,i)perylene	0.055	0.050		mg/Kg	5	5/28/2013 1:18:13 PM	7505
Indeno(1,2,3-cd)pyrene	ND	0.050		mg/Kg	5	5/28/2013 1:18:13 PM	7505
Surr: Benzo(e)pyrene	87.5	36.7-118		%REC	5	5/28/2013 1:18:13 PM	7505
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	3.6	1.5		mg/Kg	5	5/9/2013 5:11:30 PM	7373
Chloride	260	30		mg/Kg	20	5/9/2013 5:23:54 PM	7373
Nitrogen, Nitrate (As N)	ND	1.5		mg/Kg	5	5/9/2013 5:11:30 PM	7373

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013

Lab ID: 1305307-007

Matrix: SOIL

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Sulfate	390	7.5		mg/Kg	5	5/9/2013 5:11:30 PM	7373
EPA METHOD 7471: MERCURY							Analyst: JLF
Mercury	ND	0.033		mg/Kg	1	5/22/2013 9:28:10 AM	7539
EPA METHOD 6010B: SOIL METALS							Analyst: JLF
Arsenic	ND	12		mg/Kg	5	5/31/2013 4:49:25 PM	7531
Barium	300	1.0		mg/Kg	10	5/31/2013 4:52:14 PM	7531
Cadmium	ND	0.50		mg/Kg	5	5/28/2013 11:29:37 AM	7531
Chromium	18	1.5		mg/Kg	5	5/31/2013 4:49:25 PM	7531
Copper	4.3	1.5		mg/Kg	5	5/31/2013 4:49:25 PM	7531
Iron	21000	500		mg/Kg	500	5/31/2013 4:55:08 PM	7531
Lead	1.9	1.2		mg/Kg	5	5/31/2013 4:49:25 PM	7531
Manganese	400	1.0		mg/Kg	10	5/31/2013 4:52:14 PM	7531
Selenium	ND	12		mg/Kg	5	5/31/2013 4:49:25 PM	7531
Silver	ND	1.2		mg/Kg	5	5/28/2013 11:29:37 AM	7531
Uranium	ND	25		mg/Kg	5	5/28/2013 11:29:37 AM	7531
Zinc	27	12		mg/Kg	5	5/31/2013 4:49:25 PM	7531
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
4-Chloro-3-methylphenol	ND	0.99		mg/Kg	1	5/22/2013 8:12:32 PM	7537
2-Chlorophenol	ND	0.40		mg/Kg	1	5/22/2013 8:12:32 PM	7537
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	5/22/2013 8:12:32 PM	7537
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	5/22/2013 8:12:32 PM	7537
4,6-Dinitro-2-methylphenol	ND	0.99		mg/Kg	1	5/22/2013 8:12:32 PM	7537
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	5/22/2013 8:12:32 PM	7537
2-Methylphenol	ND	0.99		mg/Kg	1	5/22/2013 8:12:32 PM	7537
3+4-Methylphenol	ND	0.40		mg/Kg	1	5/22/2013 8:12:32 PM	7537
2-Nitrophenol	ND	0.40		mg/Kg	1	5/22/2013 8:12:32 PM	7537
4-Nitrophenol	ND	0.50		mg/Kg	1	5/22/2013 8:12:32 PM	7537
Pentachlorophenol	ND	0.80		mg/Kg	1	5/22/2013 8:12:32 PM	7537
Phenol	ND	0.40		mg/Kg	1	5/22/2013 8:12:32 PM	7537
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	5/22/2013 8:12:32 PM	7537
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	5/22/2013 8:12:32 PM	7537
Surr: 2,4,6-Tribromophenol	96.5	40.1-130		%REC	1	5/22/2013 8:12:32 PM	7537
Surr: 2-Fluorobiphenyl	79.0	44.4-123		%REC	1	5/22/2013 8:12:32 PM	7537
Surr: 2-Fluorophenol	77.4	41.9-112		%REC	1	5/22/2013 8:12:32 PM	7537
Surr: 4-Terphenyl-d14	86.9	29.6-130		%REC	1	5/22/2013 8:12:32 PM	7537
Surr: Nitrobenzene-d5	82.9	42.4-132		%REC	1	5/22/2013 8:12:32 PM	7537
Surr: Phenol-d5	77.1	44.3-119		%REC	1	5/22/2013 8:12:32 PM	7537
EPA METHOD 8260B: VOLATILES							Analyst: DAM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013

Lab ID: 1305307-007

Matrix: SOIL

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DAM
Benzene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Toluene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Ethylbenzene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Methyl tert-butyl ether (MTBE)	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1,2,4-Trimethylbenzene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1,3,5-Trimethylbenzene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1,2-Dichloroethane (EDC)	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1,2-Dibromoethane (EDB)	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Naphthalene	ND	0.094		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1-Methylnaphthalene	ND	0.19		mg/Kg	1	5/21/2013 3:24:37 AM	7495
2-Methylnaphthalene	ND	0.19		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Acetone	ND	0.70		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Bromobenzene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Bromodichloromethane	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Bromoform	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Bromomethane	ND	0.14		mg/Kg	1	5/21/2013 3:24:37 AM	7495
2-Butanone	ND	0.47		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Carbon disulfide	ND	0.47		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Carbon tetrachloride	ND	0.094		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Chlorobenzene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Chloroethane	ND	0.094		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Chloroform	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Chloromethane	ND	0.14		mg/Kg	1	5/21/2013 3:24:37 AM	7495
2-Chlorotoluene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
4-Chlorotoluene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
cis-1,2-DCE	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
cis-1,3-Dichloropropene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1,2-Dibromo-3-chloropropane	ND	0.094		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Dibromochloromethane	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Dibromomethane	ND	0.094		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1,2-Dichlorobenzene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1,3-Dichlorobenzene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1,4-Dichlorobenzene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Dichlorodifluoromethane	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1,1-Dichloroethane	ND	0.094		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1,1-Dichloroethene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1,2-Dichloropropane	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1,3-Dichloropropane	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
2,2-Dichloropropane	ND	0.094		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1,1-Dichloropropene	ND	0.094		mg/Kg	1	5/21/2013 3:24:37 AM	7495

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 19 of 49

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013

Lab ID: 1305307-007

Matrix: SOIL

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DAM
Hexachlorobutadiene	ND	0.094		mg/Kg	1	5/21/2013 3:24:37 AM	7495
2-Hexanone	ND	0.47		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Isopropylbenzene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
4-Isopropyltoluene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
4-Methyl-2-pentanone	ND	0.47		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Methylene chloride	ND	0.14		mg/Kg	1	5/21/2013 3:24:37 AM	7495
n-Butylbenzene	ND	0.14		mg/Kg	1	5/21/2013 3:24:37 AM	7495
n-Propylbenzene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
sec-Butylbenzene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Styrene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
tert-Butylbenzene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1,1,1,2-Tetrachloroethane	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1,1,2,2-Tetrachloroethane	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Tetrachloroethene (PCE)	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
trans-1,2-DCE	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
trans-1,3-Dichloropropene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1,2,3-Trichlorobenzene	ND	0.094		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1,2,4-Trichlorobenzene	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1,1,1-Trichloroethane	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1,1,2-Trichloroethane	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Trichloroethene (TCE)	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Trichlorofluoromethane	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
1,2,3-Trichloropropane	ND	0.094		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Vinyl chloride	ND	0.047		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Xylenes, Total	ND	0.094		mg/Kg	1	5/21/2013 3:24:37 AM	7495
Surr: 1,2-Dichloroethane-d4	86.2	70-130		%REC	1	5/21/2013 3:24:37 AM	7495
Surr: 4-Bromofluorobenzene	82.9	70-130		%REC	1	5/21/2013 3:24:37 AM	7495
Surr: Dibromofluoromethane	88.8	70-130		%REC	1	5/21/2013 3:24:37 AM	7495
Surr: Toluene-d8	97.3	70-130		%REC	1	5/21/2013 3:24:37 AM	7495
EPA METHOD 418.1: TPH							Analyst: LRW
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	5/13/2013	7382

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013 11:15:00 AM

Lab ID: 1305307-008

Matrix: AQUEOUS

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Toluene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Ethylbenzene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Naphthalene	ND	2.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1-Methylnaphthalene	ND	4.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
2-Methylnaphthalene	ND	4.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Acetone	ND	10		µg/L	1	5/9/2013 4:22:09 PM	R10534
Bromobenzene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Bromodichloromethane	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Bromoform	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Bromomethane	ND	3.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
2-Butanone	ND	10		µg/L	1	5/9/2013 4:22:09 PM	R10534
Carbon disulfide	ND	10		µg/L	1	5/9/2013 4:22:09 PM	R10534
Carbon Tetrachloride	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Chlorobenzene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Chloroethane	ND	2.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Chloroform	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Chloromethane	ND	3.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
2-Chlorotoluene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
4-Chlorotoluene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
cis-1,2-DCE	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Dibromochloromethane	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Dibromomethane	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1,1-Dichloroethane	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1,1-Dichloroethene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1,2-Dichloropropane	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1,3-Dichloropropane	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
2,2-Dichloropropane	ND	2.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1,1-Dichloropropene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Page 21 of 49

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013 11:15:00 AM

Lab ID: 1305307-008

Matrix: AQUEOUS

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Hexachlorobutadiene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
2-Hexanone	ND	10		µg/L	1	5/9/2013 4:22:09 PM	R10534
Isopropylbenzene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
4-Isopropyltoluene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
4-Methyl-2-pentanone	ND	10		µg/L	1	5/9/2013 4:22:09 PM	R10534
Methylene Chloride	ND	3.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
n-Butylbenzene	ND	3.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
n-Propylbenzene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
sec-Butylbenzene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Styrene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
tert-Butylbenzene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
trans-1,2-DCE	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Trichlorofluoromethane	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Vinyl chloride	ND	1.0		µg/L	1	5/9/2013 4:22:09 PM	R10534
Xylenes, Total	ND	1.5		µg/L	1	5/9/2013 4:22:09 PM	R10534
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	5/9/2013 4:22:09 PM	R10534
Surr: 4-Bromofluorobenzene	117	69.5-130		%REC	1	5/9/2013 4:22:09 PM	R10534
Surr: Dibromofluoromethane	106	70-130		%REC	1	5/9/2013 4:22:09 PM	R10534
Surr: Toluene-d8	94.7	70-130		%REC	1	5/9/2013 4:22:09 PM	R10534

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EB-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013 11:20:00 AM

Lab ID: 1305307-009

Matrix: AQUEOUS

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Toluene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Ethylbenzene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Naphthalene	ND	2.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1-Methylnaphthalene	ND	4.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
2-Methylnaphthalene	ND	4.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Acetone	ND	10		µg/L	1	5/9/2013 4:50:47 PM	R10534
Bromobenzene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Bromodichloromethane	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Bromoform	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Bromomethane	ND	3.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
2-Butanone	ND	10		µg/L	1	5/9/2013 4:50:47 PM	R10534
Carbon disulfide	ND	10		µg/L	1	5/9/2013 4:50:47 PM	R10534
Carbon Tetrachloride	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Chlorobenzene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Chloroethane	ND	2.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Chloroform	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Chloromethane	ND	3.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
2-Chlorotoluene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
4-Chlorotoluene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
cis-1,2-DCE	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Dibromochloromethane	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Dibromomethane	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1,1-Dichloroethane	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1,1-Dichloroethene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1,2-Dichloropropane	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1,3-Dichloropropane	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
2,2-Dichloropropane	ND	2.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1,1-Dichloropropene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Page 23 of 49

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EB-05082013

Project: OCD Land Farm

Collection Date: 5/8/2013 11:20:00 AM

Lab ID: 1305307-009

Matrix: AQUEOUS

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: CWS			
Hexachlorobutadiene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
2-Hexanone	ND	10		µg/L	1	5/9/2013 4:50:47 PM	R10534
Isopropylbenzene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
4-Isopropyltoluene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
4-Methyl-2-pentanone	ND	10		µg/L	1	5/9/2013 4:50:47 PM	R10534
Methylene Chloride	ND	3.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
n-Butylbenzene	ND	3.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
n-Propylbenzene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
sec-Butylbenzene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Styrene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
tert-Butylbenzene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
trans-1,2-DCE	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Trichlorofluoromethane	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Vinyl chloride	ND	1.0		µg/L	1	5/9/2013 4:50:47 PM	R10534
Xylenes, Total	ND	1.5		µg/L	1	5/9/2013 4:50:47 PM	R10534
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	5/9/2013 4:50:47 PM	R10534
Surr: 4-Bromofluorobenzene	110	69.5-130		%REC	1	5/9/2013 4:50:47 PM	R10534
Surr: Dibromofluoromethane	110	70-130		%REC	1	5/9/2013 4:50:47 PM	R10534
Surr: Toluene-d8	94.6	70-130		%REC	1	5/9/2013 4:50:47 PM	R10534

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: OCD Land Farm

Collection Date:

Lab ID: 1305307-010

Matrix: TRIP BLANK

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Benzene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Toluene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Ethylbenzene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Naphthalene	ND	2.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1-Methylnaphthalene	ND	4.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
2-Methylnaphthalene	ND	4.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Acetone	ND	10		µg/L	1	5/9/2013 5:19:22 PM	R10534
Bromobenzene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Bromodichloromethane	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Bromoform	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Bromomethane	ND	3.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
2-Butanone	ND	10		µg/L	1	5/9/2013 5:19:22 PM	R10534
Carbon disulfide	ND	10		µg/L	1	5/9/2013 5:19:22 PM	R10534
Carbon Tetrachloride	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Chlorobenzene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Chloroethane	ND	2.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Chloroform	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Chloromethane	ND	3.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
2-Chlorotoluene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
4-Chlorotoluene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
cis-1,2-DCE	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Dibromochloromethane	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Dibromomethane	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1,1-Dichloroethane	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1,1-Dichloroethene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1,2-Dichloropropane	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1,3-Dichloropropane	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
2,2-Dichloropropane	ND	2.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1,1-Dichloropropene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Page 25 of 49

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1305307

Date Reported: 6/14/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: OCD Land Farm

Collection Date:

Lab ID: 1305307-010

Matrix: TRIP BLANK

Received Date: 5/8/2013 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: CWS
Hexachlorobutadiene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
2-Hexanone	ND	10		µg/L	1	5/9/2013 5:19:22 PM	R10534
Isopropylbenzene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
4-Isopropyltoluene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
4-Methyl-2-pentanone	ND	10		µg/L	1	5/9/2013 5:19:22 PM	R10534
Methylene Chloride	ND	3.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
n-Butylbenzene	ND	3.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
n-Propylbenzene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
sec-Butylbenzene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Styrene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
tert-Butylbenzene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
trans-1,2-DCE	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Trichlorofluoromethane	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Vinyl chloride	ND	1.0		µg/L	1	5/9/2013 5:19:22 PM	R10534
Xylenes, Total	ND	1.5		µg/L	1	5/9/2013 5:19:22 PM	R10534
Surr: 1,2-Dichloroethane-d4	98.6	70-130		%REC	1	5/9/2013 5:19:22 PM	R10534
Surr: 4-Bromofluorobenzene	105	69.5-130		%REC	1	5/9/2013 5:19:22 PM	R10534
Surr: Dibromofluoromethane	103	70-130		%REC	1	5/9/2013 5:19:22 PM	R10534
Surr: Toluene-d8	95.7	70-130		%REC	1	5/9/2013 5:19:22 PM	R10534

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 130521032
Project Name: 1305307

Analytical Results Report

Sample Number	130521032-001	Sampling Date	5/8/2013	Date/Time Received	5/21/2013 12:22 PM
Client Sample ID	1305307-001C / CENTRAL OCD-01-05082013			Sampling Time	9:10 AM
Matrix	Soil	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	5/22/2013	ETL	EPA 335.4	
%moisture	13.3	Percent		5/22/2013	AJT	%moisture	

Sample Number	130521032-002	Sampling Date	5/8/2013	Date/Time Received	5/21/2013 12:22 PM
Client Sample ID	1305307-002C / CENTRAL OCD-02-05082013			Sampling Time	9:45 AM
Matrix	Soil	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	5/22/2013	ETL	EPA 335.4	
%moisture	16.5	Percent		5/22/2013	AJT	%moisture	

Sample Number	130521032-003	Sampling Date	5/8/2013	Date/Time Received	5/21/2013 12:22 PM
Client Sample ID	1305307-003C / CENTRAL OCD-03-05082013			Sampling Time	10:10 AM
Matrix	Soil	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	5/22/2013	ETL	EPA 335.4	
%moisture	20.6	Percent		5/22/2013	AJT	%moisture	

Sample Number	130521032-004	Sampling Date	5/8/2013	Date/Time Received	5/21/2013 12:22 PM
Client Sample ID	1305307-004C / CENTRAL OCD-04-05082013			Sampling Time	11:05 AM
Matrix	Soil	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	5/22/2013	ETL	EPA 335.4	
%moisture	12.7	Percent		5/22/2013	AJT	%moisture	

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:80142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

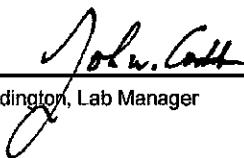
Batch #: 130521032
Project Name: 1305307

Analytical Results Report

Sample Number	130521032-005	Sampling Date	5/8/2013	Date/Time Received	5/21/2013 12:22 PM
Client Sample ID	1305307-007C / BD-05082013	Sampling Time			
Matrix	Soil	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	5/22/2013	ETL	EPA 335.4	
%moisture	21.1	Percent		5/22/2013	AJT	%moisture	

Authorized Signature


John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 130521032
Project Name: 1305307

Analytical Results Report Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.498	mg/kg	0.5	99.6	80-120	5/21/2013	5/22/2013

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
130510061-007	Cyanide	2.07	98.6	mg/kg	100	96.5	60-140	5/21/2013	5/22/2013

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	98.0	mg/kg	100	95.9	0.6	0-25	5/21/2013	5/22/2013

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/Kg	0.3	5/21/2013	5/22/2013

AR Acceptable Range
ND Not Detected
PQL Practical Quantitation Limit
RPD Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:80142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C595; MT:Cert0095

Thursday, June 06, 2013

Page 1 of 1

ANALYTICAL RESULTS

Project: 1305307
Pace Project No.: 3094809

Sample: 1305307-001B Central Lab ID: 3094809001 Collected: 05/08/13 09:10 Received: 05/21/13 10:00 Matrix: Solid
OCD-01-05

PWS: Site ID: Sample Type:

Results reported on a "dry-weight" basis

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 901.1m	1.069 ± 0.236 (0.204)	pCi/g	06/12/13 10:59	13982-63-3	
Radium-228	EPA 901.1m	1.270 ± 0.370 (0.377)	pCi/g	06/12/13 10:59	15262-20-1	

Sample: 1305307-002B Central Lab ID: 3094809002 Collected: 05/08/13 09:45 Received: 05/21/13 10:00 Matrix: Solid
OCD-02-05

PWS: Site ID: Sample Type:

Results reported on a "dry-weight" basis

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 901.1m	1.197 ± 0.275 (0.280)	pCi/g	06/12/13 11:34	13982-63-3	
Radium-228	EPA 901.1m	1.883 ± 0.427 (0.373)	pCi/g	06/12/13 11:34	15262-20-1	

Sample: 1305307-003B Central Lab ID: 3094809003 Collected: 05/08/13 10:10 Received: 05/21/13 10:00 Matrix: Solid
OCD-03-05

PWS: Site ID: Sample Type:

Results reported on a "dry-weight" basis

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 901.1m	1.168 ± 0.259 (0.205)	pCi/g	06/12/13 12:32	13982-63-3	
Radium-228	EPA 901.1m	2.033 ± 0.456 (0.285)	pCi/g	06/12/13 12:32	15262-20-1	

Sample: 1305307-004B Central Lab ID: 3094809004 Collected: 05/08/13 11:05 Received: 05/21/13 10:00 Matrix: Solid
OCD-04-05

PWS: Site ID: Sample Type:

Results reported on a "dry-weight" basis

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 901.1m	1.007 ± 0.210 (0.191)	pCi/g	06/12/13 13:12	13982-63-3	
Radium-228	EPA 901.1m	1.483 ± 0.330 (0.235)	pCi/g	06/12/13 13:12	15262-20-1	

Sample: 1305307-007B BD- Lab ID: 3094809005 Collected: 05/08/13 00:01 Received: 05/21/13 10:00 Matrix: Solid
05082013

PWS: Site ID: Sample Type:

Results reported on a "dry-weight" basis

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 901.1m	1.197 ± 0.237 (0.238)	pCi/g	06/12/13 13:46	13982-63-3	
Radium-228	EPA 901.1m	1.592 ± 0.347 (0.222)	pCi/g	06/12/13 13:46	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Date: 06/14/2013 02:14 PM

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: 1305307
Pace Project No.: 3094809

QC Batch: RADC/16080 Analysis Method: EPA 901.1m
QC Batch Method: EPA 901.1m Analysis Description: 901.1 Gamma Spec Ingrowth
Associated Lab Samples: 3094809001, 3094809002, 3094809003, 3094809004, 3094809005

METHOD BLANK: 591821 Matrix: Solid
Associated Lab Samples: 3094809001, 3094809002, 3094809003, 3094809004, 3094809005

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Radium-226	0.030 ± 0.237 (0.459)	pCi/g	06/11/13 14:09	
Radium-228	0.027 ± 0.339 (0.688)	pCi/g	06/11/13 14:09	

REPORT OF LABORATORY ANALYSIS

Date: 06/14/2013 02:14 PM

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID	MB-7373		SampType: MBLK		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 7373		RunNo: 10541					
Prep Date:	5/9/2013		Analysis Date: 5/9/2013		SeqNo: 297850		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								
Chloride	ND	1.5								
Nitrogen, Nitrate (As N)	ND	0.30								
Sulfate	ND	1.5								

Sample ID	LCS-7373		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 7373		RunNo: 10541					
Prep Date:	5/9/2013		Analysis Date: 5/9/2013		SeqNo: 297851		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.30	1.500	0	96.8	90	110			
Chloride	14	1.5	15.00	0	92.4	90	110			
Nitrogen, Nitrate (As N)	7.2	0.30	7.500	0	96.5	90	110			
Sulfate	28	1.5	30.00	0	92.6	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID	MB-7382		SampType: MBLK		TestCode: EPA Method 418.1: TPH					
Client ID:	PBS		Batch ID: 7382		RunNo: 10576					
Prep Date:	5/10/2013		Analysis Date: 5/13/2013		SeqNo: 298945		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID	LCS-7382		SampType: LCS		TestCode: EPA Method 418.1: TPH					
Client ID:	LCSS		Batch ID: 7382		RunNo: 10576					
Prep Date:	5/10/2013		Analysis Date: 5/13/2013		SeqNo: 298946		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	97	20	100.0	0	96.7	80	120			

Sample ID	1305307-004AMS		SampType: MS		TestCode: EPA Method 418.1: TPH					
Client ID:	Central OCD-04-050		Batch ID: 7382		RunNo: 10576					
Prep Date:	5/10/2013		Analysis Date: 5/13/2013		SeqNo: 298951		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	100	20	99.40	0	102	80	120			

Sample ID	1305307-004AMSD		SampType: MSD		TestCode: EPA Method 418.1: TPH					
Client ID:	Central OCD-04-050		Batch ID: 7382		RunNo: 10576					
Prep Date:	5/10/2013		Analysis Date: 5/13/2013		SeqNo: 298952		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	110	20	100.1	0	105	80	120	3.47	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID MB-7366	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 7366		RunNo: 10548							
Prep Date: 5/9/2013	Analysis Date: 5/10/2013		SeqNo: 298461		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.97		1.000		97.2	80	120			

Sample ID LCS-7366	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 7366		RunNo: 10548							
Prep Date: 5/9/2013	Analysis Date: 5/10/2013		SeqNo: 298462		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	100	80	120			
Toluene	0.99	0.050	1.000	0	99.5	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.1	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID 1305307-004AMS	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: Central OCD-04-050	Batch ID: 7366		RunNo: 10548							
Prep Date: 5/9/2013	Analysis Date: 5/11/2013		SeqNo: 298467		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.049	0.9843	0	110	67.2	113			
Toluene	1.1	0.049	0.9843	0	111	62.1	116			
Ethylbenzene	1.1	0.049	0.9843	0	113	67.9	127			
Xylenes, Total	3.4	0.098	2.953	0	116	60.6	134			
Surr: 4-Bromofluorobenzene	1.0		0.9843		104	80	120			

Sample ID 1305307-004AMSD	SampType: MSD		TestCode: EPA Method 8021B: Volatiles							
Client ID: Central OCD-04-050	Batch ID: 7366		RunNo: 10548							
Prep Date: 5/9/2013	Analysis Date: 5/11/2013		SeqNo: 298468		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	109	67.2	113	0.299	14.3	
Toluene	1.1	0.050	1.000	0	110	62.1	116	0.358	15.9	
Ethylbenzene	1.1	0.050	1.000	0	111	67.9	127	0.0588	14.4	
Xylenes, Total	3.4	0.10	3.000	0	114	60.6	134	0.143	12.6	
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R RPD outside accepted recovery limits	RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID	MB-7495		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 7495		RunNo: 10738					
Prep Date:	5/17/2013		Analysis Date: 5/20/2013		SeqNo: 303902		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		99.7	80	120			

Sample ID	LCS-7495		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 7495		RunNo: 10738					
Prep Date:	5/17/2013		Analysis Date: 5/20/2013		SeqNo: 303903		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID MB-7504	SampType: MBLK		TestCode: EPA Method 8082: PCB's							
Client ID: PBS	Batch ID: 7504		RunNo: 10783							
Prep Date: 5/20/2013	Analysis Date: 5/22/2013		SeqNo: 305224		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.020								
Aroclor 1221	ND	0.020								
Aroclor 1232	ND	0.020								
Aroclor 1242	ND	0.020								
Aroclor 1248	ND	0.020								
Aroclor 1254	ND	0.020								
Aroclor 1260	ND	0.020								
Surr: Decachlorobiphenyl	0.074		0.06250		118	31.8	151			
Surr: Tetrachloro-m-xylene	0.074		0.06250		119	26.2	144			

Sample ID LCS-7504	SampType: LCS		TestCode: EPA Method 8082: PCB's							
Client ID: LCSS	Batch ID: 7504		RunNo: 10783							
Prep Date: 5/20/2013	Analysis Date: 5/22/2013		SeqNo: 305268		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	0.13	0.020	0.1250	0	107	27	132			
Aroclor 1260	0.13	0.020	0.1250	0	106	33.6	133			
Surr: Decachlorobiphenyl	0.071		0.06250		114	31.8	151			
Surr: Tetrachloro-m-xylene	0.071		0.06250		113	26.2	144			

Sample ID 1305307-004AMS	SampType: MS		TestCode: EPA Method 8082: PCB's							
Client ID: Central OCD-04-050	Batch ID: 7504		RunNo: 10783							
Prep Date: 5/20/2013	Analysis Date: 5/22/2013		SeqNo: 305655		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	0.076	0.020	0.1249	0	60.8	13.68	112			
Aroclor 1260	0.11	0.020	0.1249	0	85.6	12.2	129			
Surr: Decachlorobiphenyl	0.061		0.06244		98.4	31.8	151			
Surr: Tetrachloro-m-xylene	0.052		0.06244		83.6	26.2	144			

Sample ID 1305307-004AMSD	SampType: MSD		TestCode: EPA Method 8082: PCB's							
Client ID: Central OCD-04-050	Batch ID: 7504		RunNo: 10783							
Prep Date: 5/20/2013	Analysis Date: 5/22/2013		SeqNo: 305656		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	0.089	0.020	0.1254	0	70.8	13.68	112	15.7	20	
Aroclor 1260	0.13	0.020	0.1254	0	100	12.2	129	16.0	20	
Surr: Decachlorobiphenyl	0.072		0.06272		114	31.8	151	0	0	
Surr: Tetrachloro-m-xylene	0.062		0.06272		98.4	26.2	144	0	0	

Qualifiers:

- | | |
|--|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2 for VOA and TOC only. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID	mb-7366		SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBS		Batch ID: 7366		RunNo: 10546					
Prep Date:	5/9/2013		Analysis Date: 5/10/2013		SeqNo: 298264		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.42		0.5000		84.2	70	130			
Surr: 4-Bromofluorobenzene	0.44		0.5000		88.2	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		91.3	70	130			
Surr: Toluene-d8	0.49		0.5000		97.5	70	130			

Sample ID	lcs-7366		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSS		Batch ID: 7366		RunNo: 10546					
Prep Date:	5/9/2013		Analysis Date: 5/10/2013		SeqNo: 298265		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		86.2	70	130			
Surr: 4-Bromofluorobenzene	0.44		0.5000		87.8	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		90.5	70	130			
Surr: Toluene-d8	0.48		0.5000		95.5	70	130			

Sample ID	mb-7495		SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBS		Batch ID: 7495		RunNo: 10748					
Prep Date:	5/17/2013		Analysis Date: 5/21/2013		SeqNo: 303851		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.10								
Chlorobenzene	ND	0.050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID	mb-7495		SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBS		Batch ID: 7495		RunNo: 10748					
Prep Date:	5/17/2013		Analysis Date: 5/21/2013		SeqNo: 303851		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.10								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID	mb-7495		SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	PBS		Batch ID:	7495		RunNo:	10748			
Prep Date:	5/17/2013		Analysis Date:	5/21/2013		SeqNo:	303851		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		89.5	70	130			
Surr: 4-Bromofluorobenzene	0.42		0.5000		84.4	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		93.1	70	130			
Surr: Toluene-d8	0.49		0.5000		97.7	70	130			

Sample ID	lcs-7495		SampType:	LCS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	LCSS		Batch ID:	7495		RunNo:	10748			
Prep Date:	5/17/2013		Analysis Date:	5/21/2013		SeqNo:	303852		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	105	70	130			
Toluene	1.2	0.050	1.000	0	120	80	120			
Chlorobenzene	1.1	0.050	1.000	0	107	70	130			
1,1-Dichloroethene	0.96	0.050	1.000	0	95.6	83.5	130			
Trichloroethene (TCE)	1.0	0.050	1.000	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		87.2	70	130			
Surr: 4-Bromofluorobenzene	0.42		0.5000		83.9	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		90.5	70	130			
Surr: Toluene-d8	0.51		0.5000		101	70	130			

Sample ID	1305307-004AMS		SampType:	MS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	Central OCD-04-050		Batch ID:	7495		RunNo:	10748			
Prep Date:	5/17/2013		Analysis Date:	5/21/2013		SeqNo:	303853		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.048	0.9533	0	105	67.5	124			
Toluene	1.1	0.048	0.9533	0	114	55.8	142			
Chlorobenzene	1.0	0.048	0.9533	0	104	67.6	124			
1,1-Dichloroethene	0.93	0.048	0.9533	0	98.0	59.2	138			
Trichloroethene (TCE)	0.96	0.048	0.9533	0	101	60.2	114			
Surr: 1,2-Dichloroethane-d4	0.44		0.4766		91.8	70	130			
Surr: 4-Bromofluorobenzene	0.41		0.4766		86.1	70	130			
Surr: Dibromofluoromethane	0.45		0.4766		93.9	70	130			
Surr: Toluene-d8	0.47		0.4766		98.0	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID	1305307-004AMSD		SampType: MSD		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	Central OCD-04-050		Batch ID: 7495		RunNo: 10748					
Prep Date:	5/17/2013		Analysis Date: 5/21/2013		SeqNo: 303854		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.048	0.9560	0	98.5	67.5	124	6.12	20	
Toluene	0.99	0.048	0.9560	0	103	55.8	142	9.30	20	
Chlorobenzene	0.91	0.048	0.9560	0	95.5	67.6	124	8.65	20	
1,1-Dichloroethene	0.85	0.048	0.9560	0	88.7	59.2	138	9.65	20	
Trichloroethene (TCE)	0.92	0.048	0.9560	0	95.8	60.2	114	4.97	20	
Surr: 1,2-Dichloroethane-d4	0.43		0.4780		90.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.41		0.4780		85.3	70	130	0	0	
Surr: Dibromofluoromethane	0.45		0.4780		93.9	70	130	0	0	
Surr: Toluene-d8	0.46		0.4780		96.9	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R10534	RunNo:	10534					
Prep Date:		Analysis Date:	5/9/2013	SeqNo:	297703	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R10534	RunNo:	10534					
Prep Date:		Analysis Date:	5/9/2013	SeqNo:	297703	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	69.5	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	9.8		10.00		98.1	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R10534	RunNo:	10534					
Prep Date:		Analysis Date:	5/9/2013	SeqNo:	297705	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	106	70	130			
Toluene	20	1.0	20.00	0	99.4	80	120			
Chlorobenzene	19	1.0	20.00	0	96.1	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.9	85.8	133			
Trichloroethene (TCE)	19	1.0	20.00	0	93.4	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID	100ng lcs		SampType:	LCS		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	LCSW		Batch ID:	R10534		RunNo:	10534			
Prep Date:			Analysis Date:	5/9/2013		SeqNo:	297705		Units: µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	69.5	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.6		10.00		96.1	70	130			

Sample ID	rb2		SampType:	MBLK		TestCode:	EPA Method 8260B: VOLATILES			
Client ID:	PBW		Batch ID:	R10534		RunNo:	10534			
Prep Date:			Analysis Date:	5/9/2013		SeqNo:	297728		Units: µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID	rb2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R10534			RunNo: 10534					
Prep Date:		Analysis Date: 5/9/2013			SeqNo: 297728	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	69.5	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	9.7		10.00		96.7	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID	100ng lcs ii		SampType: LCS			TestCode: EPA Method 8260B: VOLATILES				
Client ID:	LCSW		Batch ID: R10534			RunNo: 10534				
Prep Date:			Analysis Date: 5/9/2013			SeqNo: 297730		Units: µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	70	130			
Toluene	20	1.0	20.00	0	101	80	120			
Chlorobenzene	20	1.0	20.00	0	97.7	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	97.6	85.8	133			
Trichloroethene (TCE)	20	1.0	20.00	0	98.1	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		105	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	69.5	130			
Surr: Dibromofluoromethane	10		10.00		99.9	70	130			
Surr: Toluene-d8	9.5		10.00		95.2	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID	mb-7537		SampType:	MBLK		TestCode:	EPA Method 8270C: Semivolatiles			
Client ID:	PBS		Batch ID:	7537		RunNo:	10808			
Prep Date:	5/21/2013		Analysis Date:	5/22/2013		SeqNo:	305734		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chloro-3-methylphenol	ND	0.50								
2-Chlorophenol	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenol	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	3.1		3.330		93.4	40.1	130			
Surr: 2-Fluorobiphenyl	1.4		1.670		85.6	44.4	123			
Surr: 2-Fluorophenol	2.4		3.330		71.0	41.9	112			
Surr: 4-Terphenyl-d14	1.5		1.670		88.6	29.6	130			
Surr: Nitrobenzene-d5	1.4		1.670		83.3	42.4	132			
Surr: Phenol-d5	2.8		3.330		83.4	44.3	119			

Sample ID	lcs-7537		SampType:	LCS		TestCode:	EPA Method 8270C: Semivolatiles			
Client ID:	LCSS		Batch ID:	7537		RunNo:	10808			
Prep Date:	5/21/2013		Analysis Date:	5/22/2013		SeqNo:	305738		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chloro-3-methylphenol	2.6	0.50	3.330	0	79.0	49.9	103			
2-Chlorophenol	2.2	0.20	3.330	0	67.3	43.4	94			
4-Nitrophenol	2.4	0.25	3.330	0	72.7	45.4	113			
Pentachlorophenol	2.1	0.40	3.330	0	63.0	40	90.2			
Phenol	2.6	0.20	3.330	0	77.6	44.4	99.8			
Surr: 2,4,6-Tribromophenol	3.0		3.330		90.1	40.1	130			
Surr: 2-Fluorobiphenyl	1.5		1.670		87.3	44.4	123			
Surr: 2-Fluorophenol	2.2		3.330		66.7	41.9	112			
Surr: 4-Terphenyl-d14	1.5		1.670		89.7	29.6	130			
Surr: Nitrobenzene-d5	1.5		1.670		88.0	42.4	132			
Surr: Phenol-d5	2.9		3.330		86.7	44.3	119			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

Page 41 of 49

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID	1305307-004Ams		SampType: MS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	Central OCD-04-050		Batch ID: 7537		RunNo: 10808					
Prep Date:	5/21/2013		Analysis Date: 5/22/2013		SeqNo: 305746		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chloro-3-methylphenol	2.6	0.50	3.328	0	79.1	63.7	100			
2-Chlorophenol	2.3	0.20	3.328	0	68.3	22.2	126			
4-Nitrophenol	2.4	0.25	3.328	0	70.7	36.7	130			
Pentachlorophenol	2.2	0.40	3.328	0	65.0	15.8	113			
Phenol	2.4	0.20	3.328	0	73.5	25.1	124			
Surr: 2,4,6-Tribromophenol	3.0		3.328		90.6	40.1	130			
Surr: 2-Fluorobiphenyl	1.4		1.669		83.1	44.4	123			
Surr: 2-Fluorophenol	2.0		3.328		60.2	41.9	112			
Surr: 4-Terphenyl-d14	1.4		1.669		83.7	29.6	130			
Surr: Nitrobenzene-d5	1.4		1.669		86.8	42.4	132			
Surr: Phenol-d5	2.7		3.328		79.9	44.3	119			

Sample ID	1305307-004Amsd		SampType: MSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	Central OCD-04-050		Batch ID: 7537		RunNo: 10808					
Prep Date:	5/21/2013		Analysis Date: 5/22/2013		SeqNo: 305749		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chloro-3-methylphenol	2.6	0.50	3.331	0	77.8	63.7	100	1.52	27.3	
2-Chlorophenol	2.3	0.20	3.331	0	68.3	22.2	126	0.188	26.3	
4-Nitrophenol	2.3	0.25	3.331	0	68.5	36.7	130	3.05	20	
Pentachlorophenol	2.2	0.40	3.331	0	66.9	15.8	113	2.92	27.1	
Phenol	2.4	0.20	3.331	0	71.0	25.1	124	3.43	32.2	
Surr: 2,4,6-Tribromophenol	3.0		3.331		91.4	40.1	130	0	0	
Surr: 2-Fluorobiphenyl	1.4		1.671		81.1	44.4	123	0	0	
Surr: 2-Fluorophenol	2.0		3.331		58.7	41.9	112	0	0	
Surr: 4-Terphenyl-d14	1.5		1.671		92.5	29.6	130	0	0	
Surr: Nitrobenzene-d5	1.3		1.671		79.3	42.4	132	0	0	
Surr: Phenol-d5	2.6		3.331		78.6	44.3	119	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 O RSD is greater than RSDlimit
 R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 P Sample pH greater than 2 for VOA and TOC only.
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID MB-7505	SampType: MBLK			TestCode: EPA Method 8310: PAHs						
Client ID: PBS	Batch ID: 7505			RunNo: 10822						
Prep Date: 5/20/2013	Analysis Date: 5/23/2013			SeqNo: 306482		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	0.25								
1-Methylnaphthalene	ND	0.25								
2-Methylnaphthalene	ND	0.25								
Acenaphthylene	ND	0.25								
Acenaphthene	ND	0.25								
Fluorene	ND	0.030								
Phenanthrene	ND	0.015								
Anthracene	ND	0.015								
Fluoranthene	ND	0.020								
Pyrene	ND	0.025								
Benz(a)anthracene	ND	0.010								
Chrysene	ND	0.010								
Benzo(b)fluoranthene	ND	0.010								
Benzo(k)fluoranthene	ND	0.010								
Benzo(a)pyrene	ND	0.010								
Dibenz(a,h)anthracene	ND	0.010								
Benzo(g,h,i)perylene	ND	0.010								
Indeno(1,2,3-cd)pyrene	ND	0.010								
Surr: Benzo(e)pyrene	0.47		0.5000		93.2	36.7	118			

Sample ID LCS-7505	SampType: LCS			TestCode: EPA Method 8310: PAHs						
Client ID: LCSS	Batch ID: 7505			RunNo: 10822						
Prep Date: 5/20/2013	Analysis Date: 5/23/2013			SeqNo: 306483		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	1.7	0.25	2.000	0	82.9	43.1	92.9			
1-Methylnaphthalene	1.7	0.25	2.000	0	85.3	44.9	94.8			
2-Methylnaphthalene	1.8	0.25	2.000	0	89.2	44.5	95.4			
Acenaphthylene	1.6	0.25	2.000	0	80.4	44.7	96			
Acenaphthene	1.8	0.25	2.000	0	87.6	47.5	97.2			
Fluorene	0.18	0.030	0.2000	0	89.5	36	84.9			S
Phenanthrene	0.085	0.015	0.1006	0	84.5	42.6	92.6			
Anthracene	0.075	0.015	0.1006	0	74.3	44.4	89.9			
Fluoranthene	0.18	0.020	0.2006	0	88.7	39.3	102			
Pyrene	0.16	0.025	0.2000	0	78.4	25.3	96.9			
Benz(a)anthracene	0.018	0.010	0.02000	0	90.0	50.2	98.7			
Chrysene	0.085	0.010	0.1006	0	84.7	43.5	89.5			
Benzo(b)fluoranthene	0.024	0.010	0.02500	0	97.0	58.2	106			
Benzo(k)fluoranthene	0.012	0.010	0.01250	0	92.0	48.7	109			
Benzo(a)pyrene	ND	0.010	0.01250	0	72.0	40.3	113			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID	LCS-7505		SampType: LCS		TestCode: EPA Method 8310: PAHs					
Client ID:	LCSS		Batch ID: 7505		RunNo: 10822					
Prep Date:	5/20/2013		Analysis Date: 5/23/2013		SeqNo: 306483		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dibenz(a,h)anthracene	0.023	0.010	0.02500	0	92.0	47.7	106			
Benzo(g,h,i)perylene	0.024	0.010	0.02500	0	94.0	48.3	106			
Indeno(1,2,3-cd)pyrene	0.044	0.010	0.05002	0	89.0	43.5	101			
Surr: Benzo(e)pyrene	0.47		0.5000		94.5	36.7	118			

Sample ID	1305307-004AMS	SampType: MS		TestCode: EPA Method 8310: PAHs						
Client ID:	Central OCD-04-050	Batch ID: 7505		RunNo: 10902						
Prep Date:	5/20/2013	Analysis Date: 5/28/2013		SeqNo: 308160		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	2.2	1.3	2.011	0	110	34.9	90.8			S
1-Methylnaphthalene	2.2	1.3	2.011	0	107	36.4	91.9			S
2-Methylnaphthalene	2.1	1.3	2.011	0	106	36.2	91.7			S
Acenaphthylene	1.9	1.3	2.011	0	93.8	18.6	120			
Acenaphthene	2.1	1.3	2.011	0	105	33	100			S
Fluorene	0.21	0.15	0.2011	0	103	37.5	77			S
Phenanthrene	0.12	0.075	0.1012	0	121	32.2	104			S
Anthracene	0.089	0.075	0.1012	0	88.2	25.2	112			
Fluoranthene	0.20	0.10	0.2017	0	97.2	24.6	106			
Pyrene	0.21	0.13	0.2011	0	105	12.2	99.3			S
Benz(a)anthracene	ND	0.050	0.02011	0	106	29.3	122			
Chrysene	0.10	0.050	0.1012	0	102	40.9	93.5			S
Benzo(b)fluoranthene	ND	0.050	0.02514	0	120	42.2	125			
Benzo(k)fluoranthene	ND	0.050	0.01257	0	110	14.8	130			
Benzo(a)pyrene	ND	0.050	0.01257	0	90.0	13.2	134			
Dibenz(a,h)anthracene	ND	0.050	0.02514	0	85.0	14.9	116			
Benzo(g,h,i)perylene	ND	0.050	0.02514	0.005015	100	15.7	113			
Indeno(1,2,3-cd)pyrene	ND	0.050	0.05030	0	95.0	16.3	115			
Surr: Benzo(e)pyrene	0.58		0.5028		115	36.7	118			

Sample ID	1305307-004AMSD		SampType: MSD		TestCode: EPA Method 8310: PAHs						
Client ID:	Central OCD-04-050		Batch ID: 7505		RunNo: 10902						
Prep Date:	5/20/2013		Analysis Date: 5/28/2013		SeqNo: 308161		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Naphthalene	2.0	1.3	2.010	0	102	34.9	90.8	8.12	20	S	
1-Methylnaphthalene	2.0	1.3	2.010	0	99.4	36.4	91.9	7.44	20	S	
2-Methylnaphthalene	2.0	1.3	2.010	0	99.4	36.2	91.7	6.74	20	S	
Acenaphthylene	1.8	1.3	2.010	0	89.8	18.6	120	4.41	20		
Acenaphthene	2.0	1.3	2.010	0	99.1	33	100	6.05	20		

Qualifiers:

- | | |
|--|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2 for VOA and TOC only. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID	1305307-004AMSD	SampType: MSD		TestCode: EPA Method 8310: PAHs						
Client ID:	Central OCD-04-050	Batch ID: 7505		RunNo: 10902						
Prep Date:	5/20/2013	Analysis Date: 5/28/2013		SeqNo: 308161		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluorene	0.20	0.15	0.2010	0	99.4	37.5	77	3.15	20	S
Phenanthrene	0.10	0.075	0.1011	0	102	32.2	104	16.8	20	
Anthracene	0.089	0.075	0.1011	0	88.2	25.2	112	0.0503	20	
Fluoranthene	0.20	0.10	0.2016	0	98.5	24.6	106	1.22	20	
Pyrene	0.20	0.13	0.2010	0	101	12.2	99.3	4.31	20	S
Benz(a)anthracene	ND	0.050	0.02010	0	106	29.3	122	0	20	
Chrysene	0.11	0.050	0.1011	0	104	40.9	93.5	2.36	20	S
Benzo(b)fluoranthene	ND	0.050	0.02513	0	120	42.2	125	0	20	
Benzo(k)fluoranthene	ND	0.050	0.01256	0	110	14.8	130	0	20	
Benzo(a)pyrene	ND	0.050	0.01256	0	90.0	13.2	134	0	20	
Dibenz(a,h)anthracene	ND	0.050	0.02513	0	85.0	14.9	116	0	20	
Benzo(g,h,i)perylene	ND	0.050	0.02513	0.005015	100	15.7	113	0	20	
Indeno(1,2,3-cd)pyrene	ND	0.050	0.05027	0	95.0	16.3	115	0	20	
Surr: Benzo(e)pyrene	0.55		0.5025		110	36.7	118	0	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID	MB-7539		SampType: MBLK		TestCode: EPA Method 7471: Mercury					
Client ID:	PBS		Batch ID: 7539		RunNo: 10790					
Prep Date:	5/21/2013		Analysis Date: 5/22/2013		SeqNo: 305007		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.033								

Sample ID	LCS-7539		SampType: LCS		TestCode: EPA Method 7471: Mercury					
Client ID:	LCSS		Batch ID: 7539		RunNo: 10790					
Prep Date:	5/21/2013		Analysis Date: 5/22/2013		SeqNo: 305008		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	100	80	120			

Sample ID	1305307-004AMS		SampType: MS		TestCode: EPA Method 7471: Mercury					
Client ID:	Central OCD-04-050		Batch ID: 7539		RunNo: 10790					
Prep Date:	5/21/2013		Analysis Date: 5/22/2013		SeqNo: 305020		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1617	0.005729	96.9	75	125			

Sample ID	1305307-004AMSD		SampType: MSD		TestCode: EPA Method 7471: Mercury					
Client ID:	Central OCD-04-050		Batch ID: 7539		RunNo: 10790					
Prep Date:	5/21/2013		Analysis Date: 5/22/2013		SeqNo: 305021		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1597	0.005729	97.0	75	125	1.16	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID	MB-7531	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	PBS	Batch ID:	7531	RunNo:	10786					
Prep Date:	5/21/2013	Analysis Date:	5/22/2013	SeqNo:	304938	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Copper	ND	0.30								
Lead	ND	0.25								
Selenium	ND	2.5								
Silver	ND	0.25								
Zinc	ND	2.5								

Sample ID	LCS-7531	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	LCSS	Batch ID:	7531	RunNo:	10786					
Prep Date:	5/21/2013	Analysis Date:	5/22/2013	SeqNo:	304939	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	26	2.5	25.00	0	104	80	120			
Barium	26	0.10	25.00	0	103	80	120			
Cadmium	26	0.10	25.00	0	103	80	120			
Chromium	26	0.30	25.00	0	104	80	120			
Copper	27	0.30	25.00	0	107	80	120			
Lead	26	0.25	25.00	0	103	80	120			
Selenium	24	2.5	25.00	0	95.8	80	120			
Silver	5.2	0.25	5.000	0	105	80	120			
Zinc	26	2.5	25.00	0	103	80	120			

Sample ID	MB-7531	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	PBS	Batch ID:	7531	RunNo:	10852					
Prep Date:	5/21/2013	Analysis Date:	5/23/2013	SeqNo:	306409	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	1.0								
Manganese	ND	0.10								
Uranium	ND	5.0								

Sample ID	LCS-7531	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	LCSS	Batch ID:	7531	RunNo:	10852					
Prep Date:	5/21/2013	Analysis Date:	5/23/2013	SeqNo:	306410	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	28	1.0	25.00	0	110	80	120			
Manganese	25	0.10	25.00	0	102	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID	LCS-7531		SampType: LCS		TestCode: EPA Method 6010B: Soil Metals					
Client ID:	LCSS		Batch ID: 7531		RunNo: 10852					
Prep Date:	5/21/2013		Analysis Date: 5/23/2013		SeqNo: 306410		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	27	5.0	25.00	0	109	80	120			

Sample ID	1305307-004AMS		SampType: MS		TestCode: EPA Method 6010B: Soil Metals					
Client ID:	Central OCD-04-050		Batch ID: 7531		RunNo: 10899					
Prep Date:	5/21/2013		Analysis Date: 5/28/2013		SeqNo: 308045		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	27	12	24.79	0	109	75	125			
Cadmium	26	0.50	24.79	0	104	75	125			
Chromium	43	1.5	24.79	14.21	117	75	125			
Lead	24	1.2	24.79	1.800	90.1	75	125			
Silver	5.3	1.2	4.959	0	107	75	125			
Uranium	ND	25	24.79	0	100	75	125			
Zinc	50	12	24.79	21.00	118	75	125			

Sample ID	1305307-004AMSD		SampType: MSD		TestCode: EPA Method 6010B: Soil Metals					
Client ID:	Central OCD-04-050		Batch ID: 7531		RunNo: 10899					
Prep Date:	5/21/2013		Analysis Date: 5/28/2013		SeqNo: 308046		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	24	12	24.11	0	101	75	125	10.1	20	
Cadmium	23	0.50	24.11	0	97.3	75	125	9.52	20	
Chromium	41	1.5	24.11	14.21	113	75	125	4.13	20	
Lead	22	1.2	24.11	1.800	83.8	75	125	9.24	20	
Silver	4.8	1.2	4.822	0	100	75	125	9.41	20	
Uranium	ND	25	24.11	0	98.6	75	125	0	20	
Zinc	47	12	24.11	21.00	109	75	125	6.35	20	

Sample ID	1305307-004AMS		SampType: MS		TestCode: EPA Method 6010B: Soil Metals					
Client ID:	Central OCD-04-050		Batch ID: 7531		RunNo: 11009					
Prep Date:	5/21/2013		Analysis Date: 5/31/2013		SeqNo: 311409		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	25	1.5	24.79	3.737	86.9	75	125			
Selenium	ND	12	24.79	0	42.8	75	125			S

Sample ID	1305307-004AMSD		SampType: MSD		TestCode: EPA Method 6010B: Soil Metals					
Client ID:	Central OCD-04-050		Batch ID: 7531		RunNo: 11009					
Prep Date:	5/21/2013		Analysis Date: 5/31/2013		SeqNo: 311410		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- | | |
|--|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2 for VOA and TOC only. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1305307

14-Jun-13

Client: Western Refining Southwest, Gallup

Project: OCD Land Farm

Sample ID	1305307-004AMSD	SampType:	MSD	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	Central OCD-04-050	Batch ID:	7531	RunNo:	11009					
Prep Date:	5/21/2013	Analysis Date:	5/31/2013	SeqNo:	311410	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	25	1.5	24.11	3.737	88.6	75	125	0.720	20	
Selenium	ND	12	24.11	0	36.7	75	125	0	20	S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87105
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1305307

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

5/8/2013 2:05:00 PM

Completed By: Lindsay Mangin

5/8/2013 2:20:50 PM

Reviewed By:

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ Adjusted? ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by: ☐

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: _____

eMail _____

Phone _____

Fax _____

In Person ☐

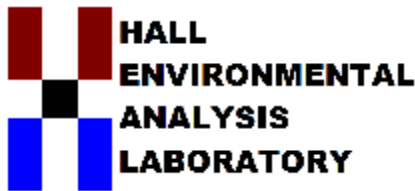
Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.5	Good	Not Present			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 26, 2013

Ed Riege

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: OCD Central Landfarm Semiannual Sampling

OrderNo.: 1311876

Dear Ed Riege:

Hall Environmental Analysis Laboratory received 6 sample(s) on 11/20/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311876

Date Reported: 11/26/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OCD-1428-11192013

Project: OCD Central Landfarm Semiannual Sam

Collection Date: 11/19/2013 11:50:00 AM

Lab ID: 1311876-001

Matrix: SOIL

Received Date: 11/20/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	150	30		mg/Kg	20	11/22/2013 1:57:53 PM	10486
EPA METHOD 418.1: TPH							Analyst: BCN
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	11/25/2013	10461

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Page 1 of 9

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311876

Date Reported: 11/26/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OCD-1730-11192013

Project: OCD Central Landfarm Semiannual Sam

Collection Date: 11/19/2013 9:30:00 AM

Lab ID: 1311876-002

Matrix: SOIL

Received Date: 11/20/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	370	30		mg/Kg	20	11/22/2013 2:22:42 PM	10486
EPA METHOD 418.1: TPH							Analyst: BCN
Petroleum Hydrocarbons, TR	24	20		mg/Kg	1	11/25/2013	10461

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Page 2 of 9

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311876

Date Reported: 11/26/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OCD-2173-11192013

Project: OCD Central Landfarm Semiannual Sam

Collection Date: 11/19/2013 12:50:00 PM

Lab ID: 1311876-003

Matrix: SOIL

Received Date: 11/20/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	300	30		mg/Kg	20	11/22/2013 3:12:20 PM	10486
EPA METHOD 418.1: TPH							Analyst: BCN
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	11/25/2013	10461

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Page 3 of 9

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311876

Date Reported: 11/26/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-11192013

Project: OCD Central Landfarm Semiannual Sam

Collection Date: 11/19/2013

Lab ID: 1311876-004

Matrix: SOIL

Received Date: 11/20/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	290	30		mg/Kg	20	11/22/2013 3:37:10 PM	10486
EPA METHOD 418.1: TPH							Analyst: BCN
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	11/25/2013	10461

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Page 4 of 9

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311876

Date Reported: 11/26/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EB-11192013

Project: OCD Central Landfarm Semiannual Sam

Collection Date: 11/19/2013 10:05:00 AM

Lab ID: 1311876-005

Matrix: AQUEOUS

Received Date: 11/20/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	1.0		µg/L	1	11/22/2013 2:07:41 PM	R15041
Toluene	ND	1.0		µg/L	1	11/22/2013 2:07:41 PM	R15041
Ethylbenzene	ND	1.0		µg/L	1	11/22/2013 2:07:41 PM	R15041
Xylenes, Total	ND	2.0		µg/L	1	11/22/2013 2:07:41 PM	R15041
Surr: 4-Bromofluorobenzene	106	85-136		%REC	1	11/22/2013 2:07:41 PM	R15041

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Page 5 of 9

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1311876

Date Reported: 11/26/2013

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-11192013

Project: OCD Central Landfarm Semiannual Sam

Collection Date: 11/19/2013 11:20:00 AM

Lab ID: 1311876-006

Matrix: AQUEOUS

Received Date: 11/20/2013 9:47:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	1.0		µg/L	1	11/22/2013 3:38:30 PM	R15041
Toluene	ND	1.0		µg/L	1	11/22/2013 3:38:30 PM	R15041
Ethylbenzene	ND	1.0		µg/L	1	11/22/2013 3:38:30 PM	R15041
Xylenes, Total	ND	2.0		µg/L	1	11/22/2013 3:38:30 PM	R15041
Surr: 4-Bromofluorobenzene	109	85-136		%REC	1	11/22/2013 3:38:30 PM	R15041

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Page 6 of 9

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311876

26-Nov-13

Client: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sampling

Sample ID	MB-10486		SampType: MBLK		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 10486		RunNo: 15033					
Prep Date:	11/22/2013		Analysis Date: 11/22/2013		SeqNo: 434229		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-10486		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 10486		RunNo: 15033					
Prep Date:	11/22/2013		Analysis Date: 11/22/2013		SeqNo: 434230		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.2	90	110			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2 for VOA and TOC only. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311876

26-Nov-13

Client: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sampling

Sample ID	MB-10461		SampType: MBLK		TestCode: EPA Method 418.1: TPH					
Client ID:	PBS		Batch ID: 10461		RunNo: 15044					
Prep Date:	11/21/2013		Analysis Date: 11/25/2013		SeqNo: 434342		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID	LCS-10461		SampType: LCS		TestCode: EPA Method 418.1: TPH					
Client ID:	LCSS		Batch ID: 10461		RunNo: 15044					
Prep Date:	11/21/2013		Analysis Date: 11/25/2013		SeqNo: 434343		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	100	20	100.0	0	100	80	120			

Sample ID	LCSD-10461		SampType: LCSD		TestCode: EPA Method 418.1: TPH					
Client ID:	LCSS02		Batch ID: 10461		RunNo: 15044					
Prep Date:	11/21/2013		Analysis Date: 11/25/2013		SeqNo: 434344		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	110	20	100.0	0	113	80	120	12.1	20	

Sample ID	1311876-001AMS		SampType: MS		TestCode: EPA Method 418.1: TPH					
Client ID:	OCD-1428-11192013		Batch ID: 10461		RunNo: 15044					
Prep Date:	11/21/2013		Analysis Date: 11/25/2013		SeqNo: 434346		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	110	20	99.80	0	110	80	120			

Sample ID	1311876-001AMSD		SampType: MSD		TestCode: EPA Method 418.1: TPH					
Client ID:	OCD-1428-11192013		Batch ID: 10461		RunNo: 15044					
Prep Date:	11/21/2013		Analysis Date: 11/25/2013		SeqNo: 434347		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	110	20	99.90	0	114	80	120	3.54	20	

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2 for VOA and TOC only. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1311876

26-Nov-13

Client: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sampling

Sample ID 5ML-RB	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBW	Batch ID: R15041		RunNo: 15041							
Prep Date:	Analysis Date: 11/22/2013		SeqNo: 434285		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	22		20.00		108	85	136			

Sample ID 100NG BTEX LCS	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSW	Batch ID: R15041		RunNo: 15041							
Prep Date:	Analysis Date: 11/22/2013		SeqNo: 434286		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.8	80	120			
Toluene	19	1.0	20.00	0	94.6	80	120			
Ethylbenzene	19	1.0	20.00	0	95.1	80	120			
Xylenes, Total	58	2.0	60.00	0	96.0	80	120			
Surr: 4-Bromofluorobenzene	22		20.00		112	85	136			

Sample ID 1311876-005A MS	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: EB-11192013	Batch ID: R15041		RunNo: 15041							
Prep Date:	Analysis Date: 11/22/2013		SeqNo: 434289		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.9	73.4	119			
Toluene	20	1.0	20.00	0.5640	95.4	80	120			
Ethylbenzene	19	1.0	20.00	0	97.4	80	120			
Xylenes, Total	60	2.0	60.00	0.9340	98.4	80	120			
Surr: 4-Bromofluorobenzene	22		20.00		112	85	136			

Sample ID 1311876-005A MSD	SampType: MSD		TestCode: EPA Method 8021B: Volatiles							
Client ID: EB-11192013	Batch ID: R15041		RunNo: 15041							
Prep Date:	Analysis Date: 11/22/2013		SeqNo: 434290		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.1	73.4	119	2.95	20	
Toluene	19	1.0	20.00	0.5640	92.3	80	120	3.18	20	
Ethylbenzene	19	1.0	20.00	0	94.8	80	120	2.69	20	
Xylenes, Total	59	2.0	60.00	0.9340	96.1	80	120	2.33	20	
Surr: 4-Bromofluorobenzene	22		20.00		112	85	136	0	0	

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2 for VOA and TOC only. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1311876

RcptNo: 1

Received by/date:

MG 11/20/13

Logged By: Lindsay Mangin

11/20/2013 9:47:00 AM

[Signature]

Completed By: Lindsay Mangin

11/20/2013 12:38:32 PM

[Signature]

Reviewed By:

IO

11/20/13

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

*per JW samples were collected on NW/A 11/22/13
notified JW we did not receive TB*

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present			

