Western Refining
GALLUP

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March 23, 2016

Mr. John E. Kieling, Chief
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Bldg 1
Santa Fe, New Mexico 87505-6303

RE: RESPONSE ACTION REPORT, LPG Blowdown Tank
WESTERN REFINING SOUTHWEST, INC. GALLUP REFINERY
EPA ID # NMD000333211
HWB-WRG-MISC

Dear Mr. Kieling:

The enclosed Response Action Report provides the detail and data for the removal of a Liquid Petroleum Gas (LPG) Blowdown Tank in the third and fourth quarter of 2014. In August 2014 the U.S. EPA conducted a RCRA inspection of the Gallup Refinery. During the inspection the EPA noted a partially buried tank in the area of the SWMU 9- Drainage Ditch and Inactive Landfarm Area. Western subsequently removed the tank and an associated junction box during the month of September 2014.

The enclosed report documents the ensuing removal of the tank and confirmation sampling. The report provides the applicable information required under Permit for Release Assessment Report Section IV.H.1.a.

If there are any questions regarding the enclosed Investigation Report, please contact Mr. Ed Riege at (505) 722-0217.

Certification

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

Sincerely, JR McDaniel
for Billy McClain

Mr. William Carl McClain
Vice President and Refinery Manager
Western Refining Southwest, Inc. – Gallup Refinery

cc K. Van Horn, NMED HWB with enclosure
C. Chavez, OCD without enclosure

RESPONSE ACTION REPORT
LPG Blowdown Tank
EPA Inspection – August 2014

Gallup Refinery
Western Refining Southwest, Inc.
Gallup, New Mexico

EPA ID# NMD000333211

MARCH 2016

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☒	☐	Title Page
☒	☐	Executive Summary
☒	☐	Report Checklist
☒	☐	Table of Contents
☒	☐	Section 1 - Introduction
☒	☐	• General information about Gallup Refinery and Area of Release
☒	☐	• Description of the Release
☒	☐	• Characterization of Released Material
☒	☐	o Discussion of the Unit / Process / Area of Release (as applicable)
☒	☐	o Location of unit(s) on a topographic map of appropriate scale
☒	☐	o Designation of type and function of unit(s)
☒	☐	o General dimensions, capacities and structural description of unit(s) (supply any available plans/drawings)
☒	☐	o Dates that the unit(s) was operated;
☒	☐	o Specifications of all wastes that have been managed at/in the unit(s) to the extent available. Include any available data on hazardous waste or hazardous constituents in the wastes
☒	☐	o All available information pertaining to any release of hazardous waste or hazardous constituents from such unit(s) (to include ground water data, soil analyses, air, and surface water data).
☒	☐	• Site Conditions That Affected Release
☒	☐	Section 2 - Remediation Activities
☒	☐	• Detailed discussion of remediation, what type of cleanup conducted, where was it conducted (GPS coordinates or measurements to physical site features), dimensions of excavation, volumes of remediation waste, characterization sampling, disposition of wastes
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Executive Summary

The Gallup Refinery is located 17 miles east of Gallup, New Mexico. This Response Action Report provides the details and data for the removal of a Liquid Petroleum Gas (LPG) Blowdown Tank in the third and fourth quarter of 2014. In August 2014 the U.S. Environmental Protection Agency (EPA) conducted a RCRA inspection of the Gallup Refinery. During the inspection the EPA noted a partially buried tank in the area of the Solid Waste Management Unit (SWMU) 9 – Drainage Ditch and Inactive Landfarm Area. Western subsequently removed the tank and an associated junction box during the month of September 2014. Stained soils were observed immediately beneath the steel junction box.

Soil was excavated from beneath the tank and junction box areas and removed offsite for disposal. Soil confirmation samples were collected and analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) (method 8021), gasoline range and diesel range organics (method 8015), total petroleum hydrocarbons (Method 418.1), volatile organics (method 8260/1311), semivolatile organics (method 8270/1311) and RCRA metals (methods 7410 & 6010/1311). The Soil confirmation samples collected from the Tank Area after the tank removal were reported to contain concentrations of benzene, ethylbenzene, and xylenes that exceed the screening levels. The final soil confirmation samples collected from the Box Area after additional excavation detected only barium above the screening level.

Section 1
Introduction

The Gallup Refinery is located approximately 17 miles east of Gallup, New Mexico along the north side of Interstate Highway I-40 in McKinley County. The physical address is I-40, Exit #39 Jamestown, New Mexico 87347. The Gallup Refinery property covers approximately 810 acres. Figure 1 presents the location of the LPG blowdown tank on the northeastern portion of the refinery property, to the north of the main tank farm.

1.1 General Information

The Gallup Refinery generally processes crude oil from the Four Corners area transported to the facility by pipeline or tanker truck. Various process units are operated at the facility, including crude distillation, reforming, fluidized catalytic cracking, alkylation, isomerization, sulfur recovery, merox treater, and hydrotreating. Current and past operations have produced gasoline, diesel fuels, jet fuels, kerosene, propane, butane, and residual fuel.

1.2 Discussion of the Inspection

The U.S. Environmental Protection Agency (EPA) conducted a RCRA inspection of the Gallup Refinery from August 12 through August 14, 2014. During the inspection of Solid Waste Management Unit (SWMU) 9 – Drainage Ditch and Inactive Landfarm Area, the top hatch of a tank was discovered in the Inactive Landfarm Area. The tank was partially buried with a top hatch sticking out of the ground. The tank was gauged and was found to contain water with no phase-separated hydrocarbons present.

1.3 Characterization and Disposal of Tank Contents

A sample of the liquid found in the tank was collected on August 19, 2014 and delivered to Hall Environmental Analysis Laboratory, Inc. (HEAL) in Albuquerque, New Mexico. The liquid was analyzed for the following:

- Mercury – EPA Method 7470;
- Total Recoverable Metals – EPA Method 6010B;
- Semivolatile organics (SVOCs) – EPA Method 8270C;

- TCLP (toxicity characteristic leaching procedure) Semivolatiles – EPA Method 8270C/1311;
- Volatile organics (VOCs) – EPA Method 8260B; and
- TCLP Volatiles – EPA Method 8260B/1311.

On August 28, 2014 HEAL issued Analytical Report No. 1408B60. A copy of the report is provided in Appendix A. Table 1 provides a summary of the analytical results. The following constituents were reported to contain concentrations above the detection limit.

- Barium – 0.072 mg/L;
- Chromium – 0.41 mg/L;
- Benzoic acid – 0.610 mg/L;
- Benzyl alcohol – 0.320 mg/L;
- 3+4 Methylphenol – 0.021 mg/L;
- Naphthalene – 0.018 mg/L;
- Phenol – 0.017 mg/L;
- Benzene – 0.030 mg/L;
- Toluene – 0.300 mg/L;
- Ethylbenzene – 0.120 mg/L;
- 1,2,4-Trimethylbenzene – 0.260 mg/L;
- 1,3,5-Trimethylbenzene – 0.092 mg/L;
- n-Propylbenzene – 0.045 mg/L; and
- Xylenes, Total – 0.650 mg/L.

No constituents were reported above the detection limit for the TCLP volatiles analysis or the TCLP semivolatiles analysis. The results indicate that the tank contents were non-hazardous. The contents were removed using a vacuum truck and discharged in the refinery process sewer to be sent through the API separator and the Waste Water Treatment Plant.

1.4 Description of the Area of Release

The location of former LPG blowdown tank is shown on a topographic map (Figure 1). The location was recorded as N35° 29.570' and W108° 25.486'. This out-of-service tank was formerly utilized as a blowdown tank during Liquid Petroleum Gas (LPG) product sampling. The tank was used as a flow-thru process tank that allowed blowdown LPG to volatize to atmosphere in a safe manner. The

tank was taken out of service when the blowdown piping was connected to the refinery gas recovery system. The dates of operation are not known.

During removal of the LPG tank and associated junction box, stained soils were observed beneath the box. The steel tank is estimated to be approximately 8 feet in diameter and 12 feet long with an estimated capacity of 100 barrels. The steel junction box was approximately 4 feet by 4 feet in the horizontal plane and 4 feet deep. Based on the chemical analysis of the tank contents and the operational history of the tank and associated junction box, there is no indication of any releases of hazardous wastes.

1.5 Site Conditions That Affect the Release

Local site topographic features include high ground in the southeast gradually decreasing to lowland fluvial plain in the northwest. Elevations on the refinery property range from 7,040 feet to 6,860 feet. The area of the site near the location of the tank is relatively flat and has an approximate elevation of 6,930 feet above mean sea level (msl). Figure 2 is an aerial photograph of the area around the LPG Blowdown Tank. Photographs are included in this report and show the land surface in the immediate area. The site conditions are not believed to have had any particular impact on the release of liquids from the tank and junction box, other than the clayey soils probably retarded the vertical migration.

Section 2
Remediation Activities

2.1 Excavation

Tank removal activities commenced on September 12, 2014 using a backhoe excavator. An associated junction box was discovered adjacent to the blowdown tank. The excavation for the tank measured approximately 18 feet by 27 feet at the surface with a depth of approximately 8.5 feet. The initial excavation for the junction box measured approximately 8.5 feet by 10 feet with a depth of approximately 4 feet. Photographs are included in Appendix B that depict the tank and junction box as well as the excavations.

Visually impacted soil was encountered beneath the smaller junction box during the excavation process. Based on the visual staining and analytical results from the initial samples collected beneath the tank, which are discussed below in Section 2.2, the initial excavation beneath the junction box was deepened to approximately 6 feet below the original ground surface. The impacted soils were temporarily staged on plastic sheeting in three individual soil piles, which were subsequently placed in a roll-off box for characterization and proper disposal. The tank and box removal activities were completed on by November 17, 2014.

On September 24, 2014 HEAL issued Analytical Report No. 1409871. A copy of the report is provided in Appendix A. The analysis demonstrated that the excavated soil was non-hazardous and could be disposed into the Northwest New Mexico Solid Waste Authority's Red Rock Landfill in Thoreau, NM. The analysis was submitted to Red Rock Landfill for their approval as Non-RCRA/Non-DOT Regulated Material Solid (TPH Soil). The excavated soil was placed into five separate roll-off boxes for disposal. Two bins shipped on 10/31/2014 (Manifest #'s D68510 & D68514). One bin shipped on 11/04/14 (Manifest # D68804), one bin shipped on 11/05/14 (Manifest # D68805), and one bin shipped on 12/02/14 (Manifest # D68914). A total of 68.94 tons of soils was shipped off site for non-hazardous waste disposal at the Red Rock Landfill. A copy of the waste manifests are included in Appendix C.

The demolished steel tank and steel box were removed offsite by a scrap metal recycler.

2.2 Soil Sampling

2.2.1 Excavated Soil Piles

A composite sample was collected on September 15, 2014 from the three soil piles that were temporarily staged on plastic sheeting.

2.2.2 Tank Area

On September 16, 2014 soil samples were collected from the floor of the excavation after removal of the steel LPG blowdown tank. Four discrete soil samples (Tank Area Location #1, Tank Area Location #2, Tank Area Location #3, and Tank Area Location #4) were collected using a decontaminated hand trowel. The samples were analyzed for BTEX (Method 8021B), gasoline range organics (GRO)/diesel range organics (DRO) (Method 8015B), total petroleum hydrocarbons (TPH) (Method 418.1), VOCS TCLP (Method 8260B/1311), SVOCs TCLP (method 8270/1311), reactivity, corrosivity and ignitability (RCI), and TCLP RCRA metals (Methods 6010, 7410 and 1311). Figure 3 depicts the sampling locations.

2.2.3 Box Area

Sampling Event Number One

On September 16, 2014 soil samples were collected using a decontaminated hand auger after the box was removed. The sample collection depth ranged from 18 inches to 24 inches below the bottom of the initial excavation, which was approximately 4 feet deep. Four discrete soil samples (Box Area Location #1, Box Area Location #2, Box Area Location #3, and Box Area Location #4) were collected. The samples were analyzed for BTEX, GRO/DRO, TPH (418.1), VOCs TCLP, SVOCs TCLP, RCI, and TCLP RCRA metals. Figure 3 depicts the sampling locations.

Sampling Event Number Two

After additional excavation was conducted in the Box Area, on November 17, 2014 soil samples were collected from the bottom of the excavation at a depth of approximately 6 feet below the original ground surface. Four discrete soil samples (Box Area Location #A, Box Area Location #B, Box Area Location #C, and Box Area Location #D) were collected from the Box Area. The samples were analyzed for BTEX, GRO/DRO, TPH (418.1), VOCs TCLP, SVOCs TCLP, RCI, and TCLP RCRA metals. Figure 4 depicts the sampling locations.

Sampling Event Number Three

On April 17, 2015 soil samples were collected from the same bottom surface of the excavation from which samples were collected on November 17, 2014. These samples were submitted for totals analyses instead of TCLP analyses for comparison to screening levels. Four discrete soil samples (Box Area Location #A, Box Area Location #B, Box Area Location #C, and Box Area Location #D) were collected and delivered to HEAL for analysis of GRO, DRO, motor oil range organics (MRO), VOCs, RCI, and RCRA metals. Figure 5 depicts the sampling locations.

2.3 Soil Screening Results

Field screening was not conducted during the collection of soil samples.

2.4 Subsurface Soil Conditions

No soil borings or monitor wells were installed during the investigation.

2.5 Groundwater Conditions

A groundwater investigation was not conducted.

Section 3
Regulatory Criteria Comparisons

The potential cleanup levels (i.e., screening levels) are specified in NMED's *Risk Assessment Guidance for Site Investigations and Remediation* dated July 2015 and in the Environmental Protection Agency's (EPA) Regional Screening Levels dated June 2015 if NMED values are not available.

For non-residential properties (e.g., the Gallup Refinery), the soil screening levels (SSLs) must be protective of commercial/industrial workers throughout the upper one foot of surface soils and construction workers throughout the upper ten feet based on NMED criteria. NMED residential soil screening levels are applied to the upper ten feet and soil screening levels for protection of groundwater apply throughout the vadose zone. EPA soil screening levels for direct contact exposure apply to the upper two feet of the vadose zone.

The cleanup criteria are shown in Tables 1 through 4.

3.1 Tank Area

On September 16, 2014 four confirmation soil samples were collected from the Tank Area after removal of the LPL blowdown tank. On September 24, 2014 HEAL issued Analytical Report No. 1409872. A copy of the report is provided in Appendix A. Table 1 provides a summary of the analytical results. The results of the confirmation sampling indicate none of the sample results exceed the residential direct contact SSLs. The following exceedances in comparison to the soil-to-groundwater protection SSLs were observed:

- Benzene concentrations detected in Tank Area Location #2, #3 and #4 exceed the Risk Based SSL for a dilution attenuation factor (DAF) of 1 and for a DAF of 20;
- The ethylbenzene concentration detected in Tank Area Location #2 exceeded the Risk Based SSL for a DAF of 1 and for a DAF of 20, while the concentrations in Tank Area #3, and #4 exceed only the DAF of 1 SSL; and
- Total Xylenes concentrations detected in Tank Area Location #2, #3 and #4 exceed the Risk Based SSL for a DAF of 1.

3.2 Box Area

3.2.1 Sampling Event Number One

On September 16, 2014 four confirmation soil samples were collected from the Box Area after the box was removed. On September 24, 2014 HEAL issued Analytical Report No. 1409873. A copy of the report is provided in Appendix A. Table 2 provides a summary of the analytical results. The results of the confirmation sampling indicated the following exceedances:

- Diesel Range Organics were reported above the SSL of 1,000 mg/kg based on "unknown oil" in the Box Area Location #3;
- Benzene concentrations detected in Box Area Location #1, #2, #3 and #4 exceed the Risk Based SSLs for a DAF of 1 and for a DAF of 20;
- Ethylbenzene concentrations detected in Box Area Location #1, #2, #3, and #4 exceed the Risk Based SSLs for a DAF of 1 and for a DAF of 20;
- Toluene concentrations detected in Box Area Location #1, #2, #3, and #4 exceed the Risk Based SSL for a DAF of 1; and
- Total Xylenes concentrations detected in Box Area Location #1, #2, #3 and #4 exceed the Risk Based SSLs for a DAF of 1 and for a DAF of 20.

3.2.2 Sampling Event Number Two

After additional excavation in the Box Area, four confirmation soil samples were collected from the Box Area on November 17, 2014. On November 25, 2014 HEAL issued Analytical Report No. 1411729. A copy of the report is provided in Appendix A. Table 3 provides a summary of the analytical results. The results of the confirmation sampling indicated the following exceedances:

- Benzene concentrations detected in Box Area Location #A, #B and #D exceed the Risk Based SSLs for a DAF of 1 and for a DAF of 20;
- Ethylbenzene concentrations detected in Box Area Location #A, #B, and #D exceed the Risk Based SSLs for a DAF of 1 and a DAF of 20;
- Toluene concentrations detected in Tank Area Location #A, #B and #D exceed the Risk Based SSL for a DAF of 1; and
- Total Xylenes concentrations detected in Tank Area Location #A, #B and #D exceed the Risk Based SSLs for a DAF of 1 and for a DAF of 20.

3.2.3 Sampling Event Number Three

On April 17, 2015 four additional soil confirmation samples were collected at the Box Area. On April 24, 2015 HEAL issued Analytical Report No. 1504856. A copy of the report is provided in Appendix A. Table 4 provides a summary of the analytical results. The results of the final confirmation sampling indicate that barium was the only constituent with concentrations (in all four samples) exceeding the Risk Based SSL for a DAF of 1. These barium concentrations (maximum value of 320 mg/kg) may be reflective of naturally concentrations.

Section 4
Conclusions and Recommendations

In August 2014 the U.S. Environmental Protection Agency (EPA) conducted a RCRA inspection of the Gallup Refinery. During the inspection the EPA found a partially buried tank within the area of SWMU 9 – Drainage Ditch and Inactive Landfarm Area. Western subsequently removed the steel tank and an associated steel junction box during the month of September 2014. Soil was excavated from the tank and box areas and disposed off-site.

Four confirmation soil samples were collected from the Tank Area after tank removal. There was no visible indications of a release from the tank; however, soil confirmation samples collected from the bottom of the excavation indicate the presence of benzene and ethylbenzene at concentration above both the DAF 1 and DAF 20 soil-to-groundwater SSLs. Xylenes were detected at concentrations above the DAF 1 SSL. No samples had concentrations of BTEX, DRO, or MRO above residential direct contact screening levels.

Stained soils were observed beneath the steel junction box after it was removed. Initial soil samples were collected from beneath the tank and found to contain DRO above the residential SSL. In addition, benzene, ethylbenzene, and xylenes were detected at concentrations above both the DAF 1 and DAF 20 SSLs, with toluene detected at concentrations above the DAF 1 SSL. Based on these results the excavation was deepened from 4 to 6 feet. Final confirmation samples were collected and analyzed for GRO, DRO, MRO, VOCs, and RCRA metals. None of the organic constituents were detected at concentrations above SSLs and only barium was detected at concentrations above the DAF SSL. The detected barium concentrations (Table 4) may be consistent with naturally occurring concentrations, but a site-specific background study has not be conducted to allow comparison.

As the tank and box were located within the footprint of SWMU 9, which is still subject to a RCRA Facility Investigation, it recommended to address any potential remaining impacts from the Tank Area with SWMU 9.

Tables

Table 1 **Soil Analytical Results – Tank Area Locations #1 thru #4 – 9/16/2014**

Table 2 **Soil Analytical Results – Box Area Locations #1 thru #4 – 9/16/2014**

Table 3 **Soil Analytical Results – Box Area Locations #A thru #D – 11/17/2014**

Table 4 **Soil Analytical Results – Box Area Locations #A thru #D – 4/17/2015**

Table 1
Soil Analytical Results
LPG Blowdown Tank - Tank Area Locations #1 thru #4
Western Refining Southwest - Gallup Refinery

Parameter Name	Tank Area Location #1	Tank Area Location #2	Tank Area Location #3	Tank Area Location #4	NMED Residential Soil (mg/kg)	Risk Based SSL for a DAF of 1 (mg/kg)	Risk Based SSL for a DAF of 20 (mg/kg)
Hall Environmental Lab ID	1409872-001	1409872-002	1409872-003	1409872-004			
Sample Date	9/16/2014	9/16/2014	9/16/2014	9/16/2014			
EPA Method 418.1 TPH - mg/kg							
Total Petroleum Hydrocarbons	320	24	96	400	-	-	-
EPA Method 6010B TCLP Metals - mg/L							
Arsenic	<5	<5	<5	<5	-	-	-
Barium	<100	<100	<100	<100	-	-	-
Cadmium	<1	<1	<1	<1	-	-	-
Chromium	<5	<5	<5	<5	-	-	-
Lead	<5	<5	<5	<5	-	-	-
Selenium	<1	<1	<1	<1	-	-	-
Silver	<5	<5	<5	<5	-	-	-
EPA Method 8270C TCLP - mg/L							
2,4,5-Trichlorophenol	<400	<400	<400	<400	-	-	-
2,4,6-Trichlorophenol	<2	<2	<2	<2	-	-	-
2,4-Dinitrotoluene	<0.13	<0.13	<0.13	<0.13	-	-	-
2-Methylphenol	<200	<200	<200	<200	-	-	-
3+4-Methylphenol	<200	<200	<200	<200	-	-	-
Cresols, Total	<200	<200	<200	<200	-	-	-
Hexachlorobenzene	<0.13	<0.13	<0.13	<0.13	-	-	-
Hexachlorobutadiene	<0.5	<0.5	<0.5	<0.5	-	-	-
Hexachloroethane	<3	<3	<3	<3	-	-	-
Nitrobenzene	<2	<2	<2	<2	-	-	-
Pentachlorophenol	<100	<100	<100	<100	-	-	-
Phenol	<200	<200	<200	<200	-	-	-
Pyridine	<5	<5	<5	<5	-	-	-
EPA Method 7470 TCLP mg/L							
Mercury	<0.02	<0.02	<0.02	<0.02	-	-	-
EPA Method 8015D - mg/kg							
Diesel Range Organics (DRO)	330	39	160	310	1000	-	-
Gasoline Range Organics (GRO)	<5.0	170	92	190	-	-	-
Motor Oil Range Organics (MRO)	<50	<50	<50	50	1000	-	-

Table 1
Soil Analytical Results
LPG Blowdown Tank - Tank Area Locations #1 thru #4
Western Refining Southwest - Gallup Refinery

Parameter Name	Tank Area Location #1	Tank Area Location #2	Tank Area Location #3	Tank Area Location #4	NMED Residential Soil (mg/kg)	Risk Based SSL for a DAF of 1 (mg/kg)	Risk Based SSL for a DAF of 20 (mg/kg)
Hall Environmental Lab ID	1409872-001	1409872-002	1409872-003	1409872-004			
Sample Date	9/16/2014	9/16/2014	9/16/2014	9/16/2014			
EPA Method 8021B - mg/kg							
Benzene	<0.05	0.19	0.13	0.25	1.78E+01	1.90E-03	3.80E-02
Ethylbenzene	<0.05	0.58	0.19	0.23	7.51E+01	1.31E-02	2.62E-01
Toluene	<0.05	0.39	0.12	0.19	5.23E+03	6.07E-01	1.21E+01
Xylenes, Total	<0.1	2.1	0.77	1.7	8.71E+02	1.49E-01	2.98E+00
EPA Method 8260B - TCLP Compounds - ppm							
1,1-Dichloroethene	<0.3	<0.3	<0.7	<0.7	-	-	-
1,2-Dichloroethane (EDC)	<0.5	<0.5	<0.5	<0.5	-	-	-
1,4-Dichlorobenzene	<7.5	<7.5	<7.5	<7.5	-	-	-
2-Butanone	<200	<200	<200	<200	-	-	-
Benzene	<0.5	<0.3	<0.5	<0.5	-	-	-
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5	-	-	-
Chlorobenzene	<100	<0.3	<100	<100	-	-	-
Chloroform	<6	<6	<6	<6	-	-	-
Hexachlorobutadiene	NA	<0.5	NA	NA	-	-	-
Tetrachloroethene (PCE)	<0.7	<0.7	<0.7	<0.7	-	-	-
Trichloroethene (TCE)	<0.5	<0.3	<0.5	<0.5	-	-	-
Vinyl chloride	<0.2	<0.2	<0.2	<0.2	-	-	-
EPA Method 8260B - TCLP Compounds - mg/kg							
m,p-Xylenes	<0.5	-	-	-	-	-	-
o-Xylene	<0.5	-	-	-	-	-	-
Corrosivity - 9045D	Non-Corrosive	Non-Corrosive	Non-Corrosive	Non-Corrosive	-	-	-
Reactive Cyanide - 9012B-mg/kg	<0.125	<0.125	<0.125	<0.125	-	-	-
Reactive Sulfide - 9034/9030B mg/kg	<25	<25	<25	<25	-	-	-
Ignitability - D93 / 1010A	*	*	*	*	-	-	-

- No screening level or analytical result available

NMED - Risk Assessment Guidance for Site Investigations and Remediation (July 2015)

0.19	highlighted value exceeds screening level

* Did not ignite at 170 ^{o}F

Table 2
Soil Analytical Results
LPG Blowdown Tank - Box Area Locations #1 thru #4
Western Refining Southwest - Gallup Refinery

Parameter Name	Box Area Location #1	Box Area Location #2	Box Area Location #3	Box Area Location #4	Residential Soil (mg/kg)	Risk Based SSL for a DAF of 1 (mg/kg)	Risk Based SSL for a DAF of 20 (mg/kg)
Hall Environmental Lab ID	1409873-001	1409873-002	1409873-003	1409873-004			
Sample Date	9/16/2014	9/16/2014	9/16/2014	9/16/2014			
EPA Method 418.1 TPH - mg/kg							
Total Petroleum Hydrocarbons	160	1400	1900	710	-	-	-
EPA Method 6010B TCLP Metals - mg/L							
Arsenic	<5	<5	<5	<5	-	-	-
Barium	<100	<100	<100	<100	-	-	-
Cadmium	<1	<1	<1	<1	-	-	-
Chromium	<5	<5	<5	<5	-	-	-
Lead	<5	<5	<5	<5	-	-	-
Selenium	<1	<1	<1	<1	-	-	-
Silver	<5	<5	<5	<5	-	-	-
EPA Method 8270C TCLP - mg/L							
2,4,5-Trichlorophenol	<400	<400	<400	<400	-	-	-
2,4,6-Trichlorophenol	<2	<2	<2	<2	-	-	-
2,4-Dinitrotoluene	<0.13	<0.13	<0.13	<0.13	-	-	-
2-Methylphenol	<200	<200	<200	<200	-	-	-
3+4-Methylphenol	<200	<200	<200	<200	-	-	-
Cresols, Total	<200	<200	<200	<200	-	-	-
Hexachlorobenzene	<0.13	<0.13	<0.13	<0.13	-	-	-
Hexachlorobutadiene	<0.5	<0.5	<0.5	<0.5	-	-	-
Hexachloroethane	<3	<3	<3	<3	-	-	-
Nitrobenzene	<2	<2	<2	<2	-	-	-
Pentachlorophenol	<100	<100	<100	<100	-	-	-
Phenol	<200	<200	<200	<200	-	-	-
Pyridine	<5	<5	<5	<5	-	-	-
EPA Method 7470 TCLP mg/L							
Mercury	<0.02	<0.02	<0.02	<0.02	-	-	-
EPA Method 8015D - mg/kg							
Diesel Range Organics (DRO)	90	980	3600	790	1000	-	-
Gasoline Range Organics (GRO)	110	230	560	390	-	-	-
Motor Oil Range Organics (MRO)	<50	<502	<501	58	1000	-	-

Table 2
Soil Analytical Results
LPG Blowdown Tank - Box Area Locations #1 thru #4
Western Refining Southwest - Gallup Refinery

Parameter Name	Box Area Location #1	Box Area Location #2	Box Area Location #3	Box Area Location #4	Residential Soil (mg/kg)	Risk Based SSL for a DAF of 1 (mg/kg)	Risk Based SSL for a DAF of 20 (mg/kg)
Hall Environmental Lab ID	1409873-001	1409873-002	1409873-003	1409873-004			
Sample Date	9/16/2014	9/16/2014	9/16/2014	9/16/2014			
EPA Method 8021B - mg/kg							
Benzene	0.21	0.082	0.22	0.39	1.78E+01	1.90E-03	3.80E-02
Ethylbenzene	0.51	1.2	2.9	2	7.51E+01	1.31E-02	2.62E-01
Toluene	3.1	8	4.7	12	5.23E+03	6.07E-01	1.21E+01
Xylenes, Total	3.4	8.6	26	15	8.71E+02	1.49E-01	2.98E+00
EPA Method 8260B - TCLP Compounds - ppm							
1,1-Dichloroethene	<0.70	<0.70	<0.70	<0.70	-	-	-
1,2-Dichloroethane (EDC)	<0.50	<0.50	<0.50	<0.50	-	-	-
1,4-Dichlorobenzene	<7.5	<7.5	<7.5	<7.5	-	-	-
2-Butanone	<200	<200	<200	<200	-	-	-
Benzene	<0.50	<0.50	<0.50	<0.50	-	-	-
Carbon tetrachloride	<0.50	<0.50	<0.50	<0.50	-	-	-
Chlorobenzene	<100	<100	<100	<100	-	-	-
Chloroform	<6.0	<6.0	<6.0	<6.0	-	-	-
Tetrachloroethene (PCE)	<0.70	<0.70	<0.70	<0.70	-	-	-
Trichloroethene (TCE)	<0.50	<0.50	<0.50	<0.50	-	-	-
Vinyl chloride	<0.20	<0.20	<0.20	<0.20	-	-	-
Corrosivity - 9045D	Non-Corrosive	Non-Corrosive	Non-Corrosive	Non-Corrosive	-	-	-
Reactive Cyanide - 9012B-mg/kg	<0.125	<0.125	<0.125	<0.125	-	-	-
Reactive Sulfide - 9034/9030B mg/kg	<25	<25	<25	<25	-	-	-
Ignitability - D93 / 1010A	*	*	*	*	-	-	-

- No screening level or analytical result available

NMED - Risk Assessment Guidance for Site Investigations and Remediation (July 2015)

0.19 highlighted value exceeds screening level

* Did not ignite at 170 °F

Table 3
Soil Analytical Results
LPG Blowdown Tank - Box Area Locations #A thru #D
Western Refining Southwest - Gallup Refinery

Parameter Name	Box Area Location #A	Box Area Location #B	Box Area Location #C	Box Area Location #D	Residential Soil (mg/kg)	Risk Based SSL for a DAF of 1 (mg/kg)	Risk Based SSL for a DAF of 20 (mg/kg)
Hall Environmental Lab ID	1411729-001	1411729-002	1411729-003	1411729-004			
Sample Date	11/17/2014	11/17/2014	11/17/2014	11/17/2014			
EPA Method 418.1 TPH - mg/kg							
Total Petroleum Hydrocarbons	530	920	<20	380	-	-	-
EPA Method 6010B TCLP Metals - mg/L							
Arsenic	<5	<5	<5	<5	-	-	-
Barium	<100	<100	<100	<100	-	-	-
Cadmium	<1	<1	<1	<1	-	-	-
Chromium	<5	<5	<5	<5	-	-	-
Lead	<5	<5	<5	<5	-	-	-
Selenium	<1	<1	<1	<1	-	-	-
Silver	<5	<5	<5	<5	-	-	-
EPA Method 8270C TCLP - mg/L							
2,4,5-Trichlorophenol	<400	<400	<400	<400	-	-	-
2,4,6-Trichlorophenol	<2	<2	<2	<2	-	-	-
2,4-Dinitrotoluene	<0.13	<0.13	<0.13	<0.13	-	-	-
2-Methylphenol	<200	<200	<200	<200	-	-	-
3+4-Methylphenol	<200	<200	<200	<200	-	-	-
Cresols, Total	<200	<200	<200	<200	-	-	-
Hexachlorobenzene	<0.13	<0.13	<0.13	<0.13	-	-	-
Hexachlorobutadiene	<0.5	<0.5	<0.5	<0.5	-	-	-
Hexachloroethane	<3	<3	<3	<3	-	-	-
Nitrobenzene	<2	<2	<2	<2	-	-	-
Pentachlorophenol	<100	<100	<100	<100	-	-	-
Phenol	<200	<200	<200	<200	-	-	-
Pyridine	<5	<5	<5	<5	-	-	-
EPA Method 7470 TCLP mg/L							
Mercury	<0.02	<0.02	<0.02	<0.02	-	-	-
EPA Method 8015D - mg/kg							
Diesel Range Organics (DRO)	340	300	<10	170	1000	-	-
Gasoline Range Organics (GRO)	250	240	<5	1000	-	-	-
Motor Oil Range Organics (MRO)	NA	NA	NA	NA	1000	-	-

Table 3
Soil Analytical Results
LPG Blowdown Tank - Box Area Locations #A thru #D
Western Refining Southwest - Gallup Refinery

Parameter Name	Box Area Location #A	Box Area Location #B	Box Area Location #C	Box Area Location #D	Residential Soil (mg/kg)	Risk Based SSL for a DAF of 1 (mg/kg)	Risk Based SSL for a DAF of 20 (mg/kg)
Hall Environmental Lab ID	1411729-001	1411729-002	1411729-003	1411729-004			
Sample Date	11/17/2014	11/17/2014	11/17/2014	11/17/2014			
EPA Method 8021B - mg/kg							
Benzene	0.94	0.45	<0.05	3.5	1.78E+01	1.90E-03	3.80E-02
Ethylbenzene	3.9	6.2	<0.05	15	7.51E+01	1.31E-02	2.62E-01
Toluene	0.92	1.5	<0.05	3.2	5.23E+03	6.07E-01	1.21E+01
Xylenes, Total	6.3	11	<0.10	24	8.71E+02	1.49E-01	2.98E+00
EPA Method 8260B - TCLP Compounds - ppm							
1,1-Dichloroethene	<0.70	<0.70	<0.70	<0.70	-	-	-
1,2-Dichloroethane (EDC)	<0.50	<0.50	<0.50	<0.50	-	-	-
1,4-Dichlorobenzene	<7.5	<7.5	<7.5	<7.5	-	-	-
2-Butanone	<200	<200	<200	<200	-	-	-
Benzene	<0.50	<0.50	<0.50	<0.50	-	-	-
Carbon tetrachloride	<0.50	<0.50	<0.50	<0.50	-	-	-
Chlorobenzene	<100	<100	<100	<100	-	-	-
Chloroform	<6.0	<6.0	<6.0	<6.0	-	-	-
Tetrachloroethene (PCE)	<0.70	<0.70	<0.70	<0.70	-	-	-
Trichloroethene (TCE)	<0.50	<0.50	<0.50	<0.50	-	-	-
Vinyl chloride	<0.20	<0.20	<0.20	<0.20	-	-	-
Corrosivity - EPA 9045	7.81	7.52	9.08	8.61	-	-	-
Reactive Cyanide - SW846 CH7	<1	<1	<1	<1	-	-	-
Reactive Sulfide - SW846 CH7	37.1	34	19.8	26.7	-	-	-
Ignitability - EPA 1030	Negative	Negative	Negative	Negative	-	-	-

- No screening level or analytical result available

NMED - Risk Assessment Guidance for Site Investigations and Remediation (July 2015)

0.19 highlighted value exceeds screening level

* Did not ignite at 170 °F

Table 4
Soil Analytical Results
LPG Blowdown Tank - Box Area Locations #A thru #D
Western Refining Southwest - Gallup Refinery

Parameter Name	Box Area Location #A	Box Area Location #B	Box Area Location #C	Box Area Location #D	Residential Soil (mg/kg)	Risk Based SSL for a DAF of 1 (mg/kg)	Risk Based SSL for a DAF of 20 (mg/kg)
Hall Environmental Lab ID	1504856-001	1504856-002	1504856-003	1504856-004			
Sample Date	4/17/2015	4/17/2015	4/17/2015	4/17/2015			
EPA Method 8015D - mg/kg							
Diesel Range Organics (DRO)	<9.8	36	<9.87	<9.96	1000	-	-
Gasoline Range Organics (GRO)	<4.8	<4.8	<4.9	<4.7	-	-	-
Motor Oil Range Organics (MRO)	<49	<49	<49	<50	1000	-	-
EPA Method 7470 mg/kg							
Mercury	<0.032	<0.034	<0.032	<0.032	2.38E+01	3.27E-02	6.54E-01
EPA Method 6010B Soil Metals - mg/kg							
Arsenic	<5.1	<5.0	<4.9	<2.5	4.25E+00	1.50E-02	2.99E-01
Barium	280	300	240	320	1.56E+04	1.35E+02	2.70E+03
Cadmium	<0.21	<0.20	<0.20	<0.10	7.05E-01	4.69E-01	9.39E+00
Chromium	15	11	13	10	9.66E+01	1.01E+04	2.01E+05
Lead	5.2	5.2	5.6	4.4	4.00E+02	-	-
Selenium	<5.1	<5.0	<4.9	<2.5	3.91E+02	5.11E-01	1.02E-01
Silver	<0.51	<0.50	<0.49	<0.25	3.91E+02	6.88E-01	1.38E+01
EPA Method 8260B - mg/kg							
1,1,1,2-Tetrachloroethane	<0.048	<0.048	<0.049	<0.047	2.81E+01	1.80E-03	3.59E-02
1,1,1-Trichloroethane	<0.048	<0.048	<0.049	<0.047	1.44E+04	2.55E+00	5.11E+01
1,1,2,2-Tetrachloroethane	<0.048	<0.048	<0.049	<0.047	7.98E+00	2.40E-04	4.80E-03
1,1,2-Trichloroethane	<0.048	<0.048	<0.049	<0.047	2.61E+00	1.11E-04	2.23E-03
1,1-Dichloroethane	<0.048	<0.048	<0.049	<0.047	7.86E+01	6.79E-03	1.36E-01
1,1-Dichloroethene	<0.048	<0.048	<0.049	<0.047	4.40E+02	9.74E-02	1.95E+00
1,1-Dichloropropene	<0.096	<0.095	<0.099	<0.094	-	-	-
1,2,3-Trichlorobenzene	<0.096	<0.095	<0.099	<0.094	-	-	-
1,2,3-Trichloropropane	<0.096	<0.095	<0.099	<0.094	5.10E-02	2.60E-06	5.21E-05
1,2,4-Trichlorobenzene	<0.048	<0.048	<0.049	<0.047	8.29E+01	8.82E-03	1.76E-01
1,2,4-Trimethylbenzene	<0.048	<0.048	<0.049	<0.047	-	-	-
1,2-Dibromo-3-chloropropane	<0.096	<0.095	<0.099	<0.094	8.58E-02	1.17E-06	2.34E-05
1,2-Dibromoethane (EDB)	<0.048	<0.048	<0.049	<0.047	6.72E-01	1.76E-05	3.52E-04
1,2-Dichlorobenzene	<0.048	<0.048	<0.049	<0.047	2.15E+03	2.29E-01	4.58E+00
1,2-Dichloroethane (EDC)	<0.048	<0.048	<0.049	<0.047	8.32E+00	4.07E-04	8.14E-03
1,2-Dichloropropane	<0.048	<0.048	<0.049	<0.047	1.78E+01	1.21E-03	2.43E-02
1,3,5-Trimethylbenzene	<0.048	<0.048	<0.049	<0.047	-	-	-

Table 4
Soil Analytical Results
LPG Blowdown Tank - Box Area Locations #A thru #D
Western Refining Southwest - Gallup Refinery

Parameter Name	Box Area Location #A	Box Area Location #B	Box Area Location #C	Box Area Location #D	Residential Soil (mg/kg)	Risk Based SSL for a DAF of 1 (mg/kg)	Risk Based SSL for a DAF of 20 (mg/kg)
Hall Environmental Lab ID	1504856-001	1504856-002	1504856-003	1504856-004			
Sample Date	4/17/2015	4/17/2015	4/17/2015	4/17/2015			
1,3-Dichlorobenzene	<0.048	<0.048	<0.049	<0.047	-	-	-
1,3-Dichloropropane	<0.048	<0.048	<0.049	<0.047	-	-	-
1,4-Dichlorobenzene	<0.048	<0.048	<0.049	<0.047	3.28E+01	3.60E-03	7.20E-02
1-Methylnaphthalene	<0.19	<0.19	<0.20	<0.19	-	-	-
2,2-Dichloropropane	<0.096	<0.095	<0.099	<0.094	-	-	-
2-Butanone	<0.48	<0.48	<0.49	<0.47	3.74E+04	1.00E+00	2.01E+01
2-Chlorotoluene	<0.048	<0.048	<0.049	<0.047	1.56E+03	1.78E-01	3.56E+00
2-Hexanone	<0.48	<0.48	<0.49	<0.47	-	-	-
2-Methylnaphthalene	<0.19	<0.19	<0.20	<0.19	-	-	-
4-Isopropyltoluene	<0.048	<0.048	<0.049	<0.047	-	-	-
4-Methyl-2-pentanone	<0.48	<0.48	<0.49	<0.47	5.81E+03	2.40E-01	4.80E+00
Acetone	<0.72	<0.71	<0.74	<0.71	6.63E+04	2.49E+00	4.98E+01
Benzene	<0.048	<0.048	<0.049	<0.047	1.78E+01	1.90E-03	3.80E-02
Bromobenzene	<0.048	<0.048	<0.049	<0.047	-	-	-
Bromodichloromethane	<0.14	<0.14	<0.15	<0.14	6.19E+00	3.10E-04	6.21E-03
Bromoform	<0.048	<0.048	<0.049	<0.047	6.74E+02	2.05E-02	4.11E-01
Bromomethane	<0.14	<0.14	<0.15	<0.14	1.77E+01	1.71E-03	3.43E-02
Carbon disulfide	<0.14	<0.14	<0.15	<0.14	1.55E+03	2.21E-01	4.42E+00
Carbon tetrachloride	<0.14	<0.14	<0.15	<0.14	1.07E+01	1.66E-03	3.33E-02
Chlorobenzene	<0.048	<0.048	<0.049	<0.047	3.78E+02	4.18E-02	8.36E-01
Chloroethane	<0.096	<0.095	<0.099	<0.094	1.90E+04	5.37E+00	1.07E+02
Chloroform	<0.048	<0.048	<0.049	<0.047	5.90E+00	5.46E-04	1.09E-02
Chloromethane	<0.14	<0.14	<0.15	<0.14	4.11E+01	4.76E-03	9.51E-02
cis-1,2-DCE	<0.048	<0.048	<0.049	<0.047	1.56E+02	9.18E-03	1.84E-01
cis-1,3-Dichloropropene	<0.048	<0.048	<0.049	<0.047	2.93E+01	1.40E-03	2.80E-02
Dibromochloromethane	<0.048	<0.048	<0.049	<0.047	1.39E+01	3.77E-04	7.54E-03
Dibromomethane	<0.048	<0.048	<0.049	<0.047	-	-	-
Dichlorodifluoromethane	<0.048	<0.048	<0.049	<0.047	1.82E+02	3.61E-01	7.23E+00
Ethylbenzene	<0.048	<0.048	<0.049	<0.047	7.51E+01	1.31E-02	2.62E-01
Hexachlorobutadiene	<0.096	<0.095	<0.099	<0.094	6.16E+01	4.39E-03	8.79E-02
Isopropylbenzene	<0.048	<0.048	<0.049	<0.047	2.36E+03	5.69E-01	1.14E+01
Methyl tert-butyl ether (MTBE)	<0.048	<0.048	<0.049	<0.047	9.75E+02	2.77E-02	5.53E-01

Table 4
Soil Analytical Results
LPG Blowdown Tank - Box Area Locations #A thru #D
Western Refining Southwest - Gallup Refinery

Parameter Name	Box Area Location #A	Box Area Location #B	Box Area Location #C	Box Area Location #D	Residential Soil (mg/kg)	Risk Based SSL for a DAF of 1 (mg/kg)	Risk Based SSL for a DAF of 20 (mg/kg)
Hall Environmental Lab ID	1504856-001	1504856-002	1504856-003	1504856-004			
Sample Date	4/17/2015	4/17/2015	4/17/2015	4/17/2015			
Methylene chloride	<0.14	<0.14	<0.15	<0.14	4.09E+02	2.35E-02	4.71E-01
Naphthalene	<0.096	<0.095	<0.099	<0.094	4.97E+01	4.11E-03	8.23E-02
n-Butylbenzene	<0.14	<0.14	<0.15	<0.14	-	-	-
n-Propylbenzene	<0.048	<0.048	<0.049	<0.047	-	-	-
sec-Butylbenzene	<0.048	<0.048	<0.049	<0.047	-	-	-
Styrene	<0.048	<0.048	<0.049	<0.047	7.26E+03	1.03E+00	2.06E+01
tert-Butylbenzene	<0.048	<0.048	<0.049	<0.047	-	-	-
Tetrachloroethene (PCE)	<0.048	<0.048	<0.049	<0.047	1.11E+02	1.60E-02	3.21E-01
Toluene	<0.048	<0.048	<0.049	<0.047	5.23E+03	6.07E-01	1.21E+01
trans-1,2-DCE	<0.048	<0.048	<0.049	<0.047	2.95E+02	2.35E-02	4.69E-01
trans-1,3-Dichloropropene	<0.048	<0.048	<0.049	<0.047	2.93E+01	1.40E-03	2.80E-02
Trichloroethene (TCE)	<0.048	<0.048	<0.049	<0.047	6.77E+00	8.75E-04	1.75E-02
Trichlorofluoromethane	<0.048	<0.048	<0.049	<0.047	1.23E+03	7.84E-01	1.57E+01
Vinyl chloride	<0.048	<0.048	<0.049	<0.047	7.42E-01	6.75E-05	1.35E-03
Xylenes, Total	<0.096	<0.095	<0.099	<0.094	8.71E+02	1.49E-01	2.98E+00
Corrosivity - EPA 9045	8.8	9.54	9.56	8.92	-	-	-
Reactive Cyanide - SW846 CH7	<0.247	<0.247	<0.247	<0.247	-	-	-
Reactive Sulfide - SW846 CH7	24.7	29.6	29.6	28.1	-	-	-
Ignitability - EPA 1030	Negative	Negative	Negative	Negative	-	-	-

- No screening level or analytical result available

NMED - Risk Assessment Guidance for Site Investigations and Remediation (July 2015)

0.19 highlighted value exceeds screening level

* Did not ignite at 170 ^{o}F

Figures

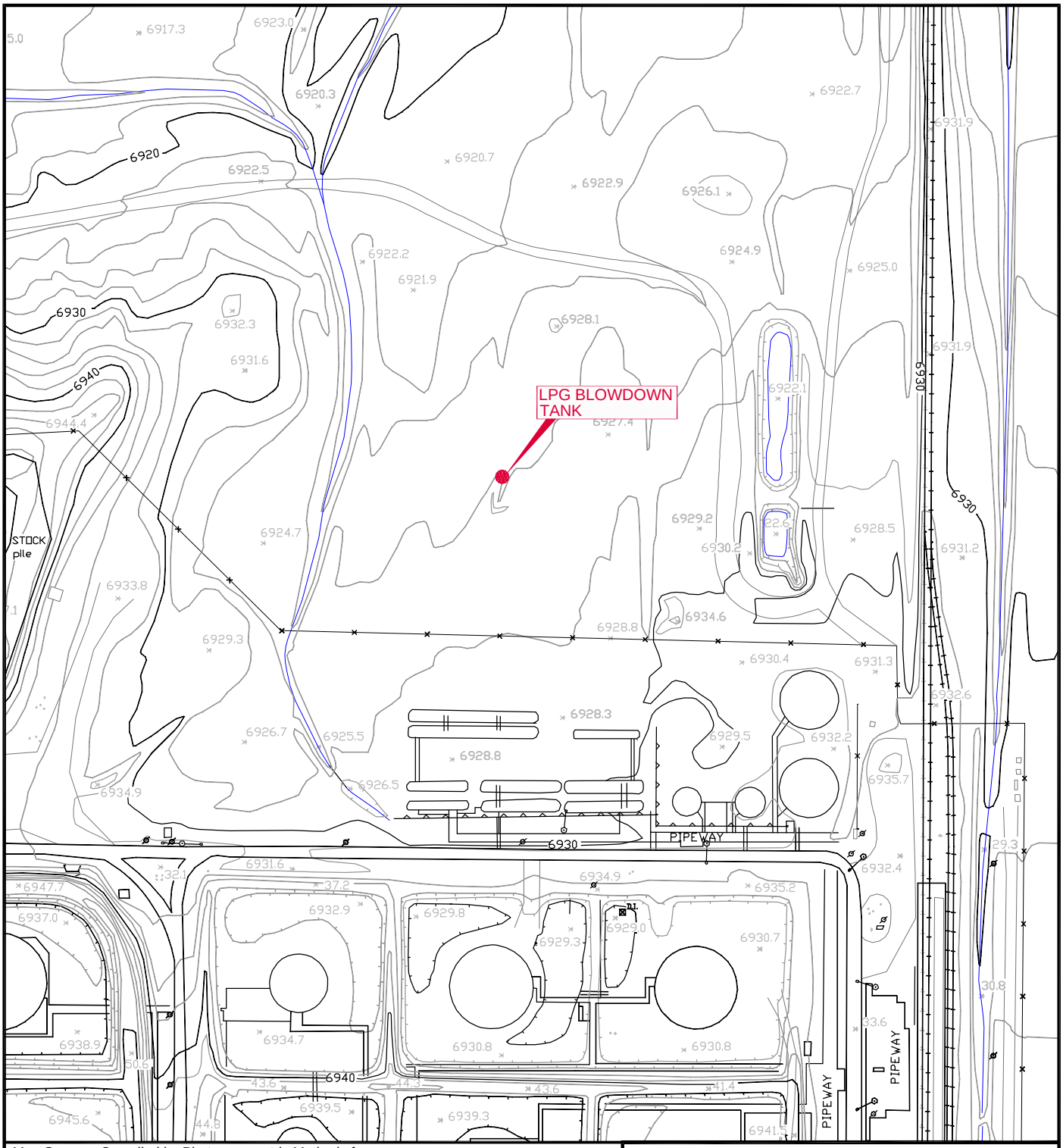
Figure 1 **Site Location Map**

Figure 2 **Aerial Photo of LPG Blowdown Tank**

Figure 3 **Soil Sampling Locations – September 16, 2014**

Figure 4 **Soil Sampling Locations – November 16, 2014**

Figure 5 **Soil Sampling Locations – April 17, 2014**



Map Source: Compiled by Photogrammetric Methods from Photography Acquired on March 1, 1998.

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining	DATE:02/29/16	FILE: WestRef-dA41

FIGURE 1

SITE LOCATION MAP
LPG BLOWDOWN TANK

N

0 150
SCALE IN FEET

QUADRANGLE LOCATION

DiSorbo
Environmental Consulting Firm

8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759

N

0 100
SCALE IN FEET

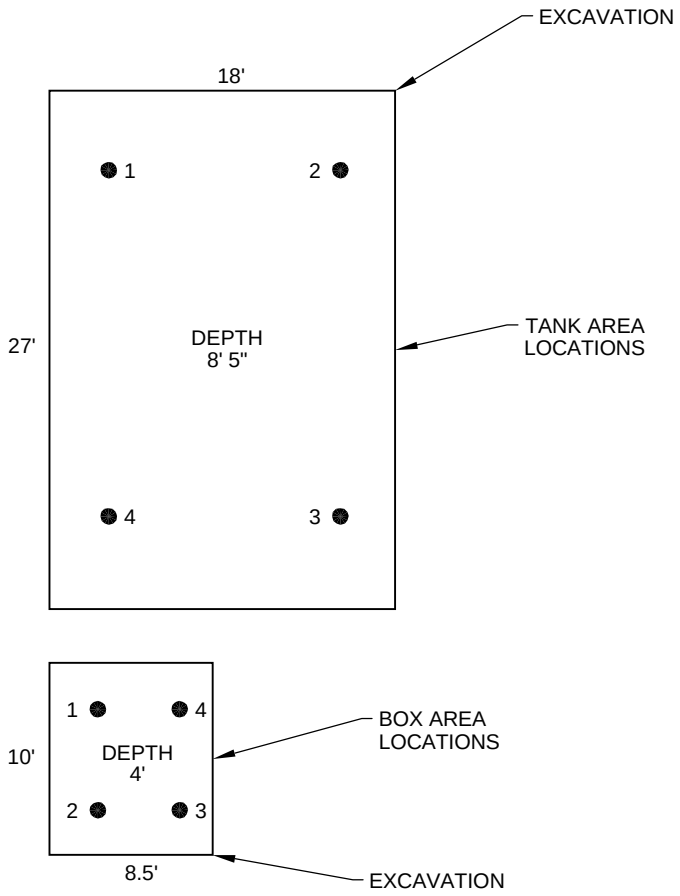
Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining	DATE:02/29/16	FILE:WestRef-dA42

FIGURE 2
AERIAL PHOTO OF
LPG BLOWDOWN TANK

DiSorbo
Environmental Consulting Firm

8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759



Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining	DATE:02/29/16	FILE:WestRef-dA43

FIGURE 3
SOIL SAMPLING LOCATIONS
SEPTEMBER 16, 2014
LPG BLOWDOWN TANK

N

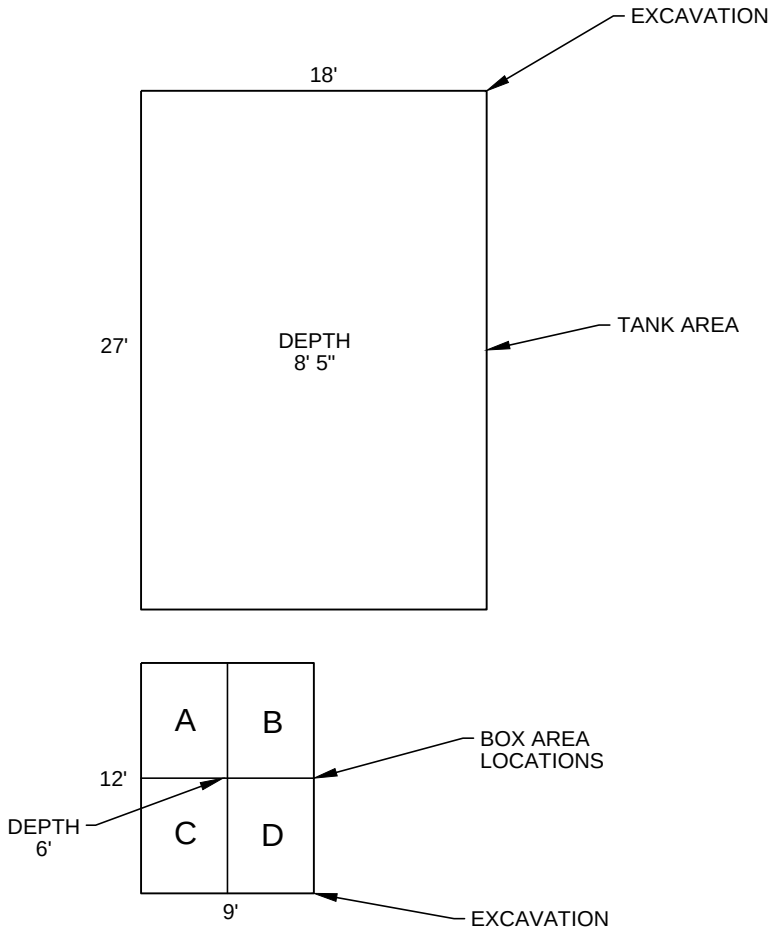
0 10
SCALE IN FEET

LEGEND

1 ● SOIL SAMPLING LOCATION AND IDENTIFICATION NUMBER

DiSorbo
Environmental Consulting Firm

8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759



Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining	DATE:02/29/16	FILE:WestRef-dA44

FIGURE 4
SOIL SAMPLING LOCATIONS
NOVEMBER 17, 2014
LPG BLOWDOWN TANK

N

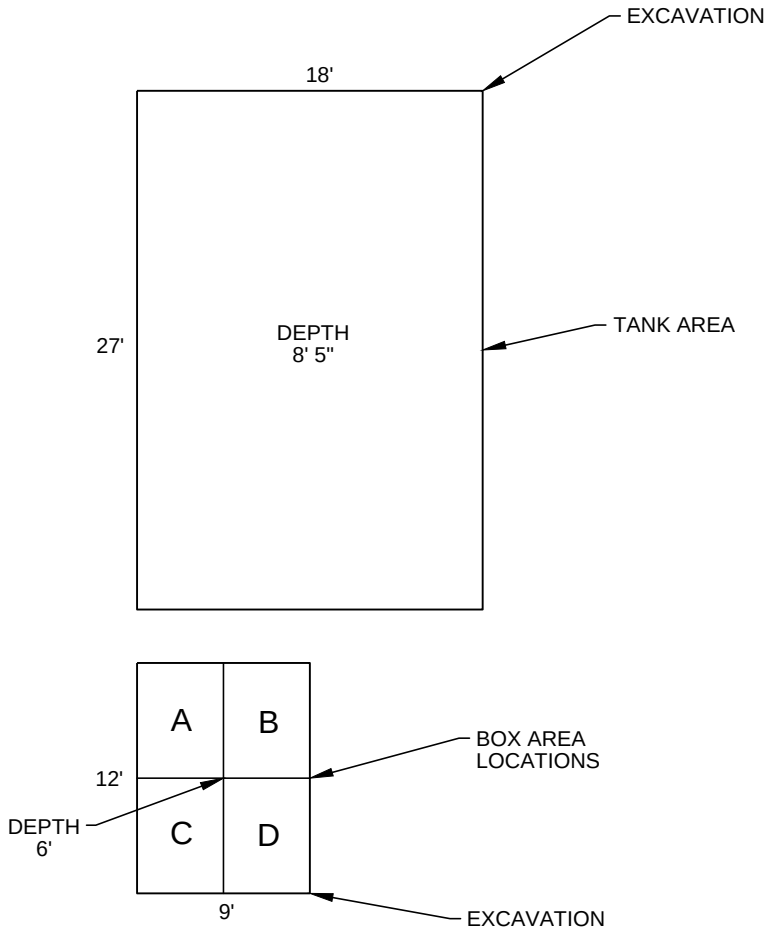
0 10
SCALE IN FEET

LEGEND

A SOIL SAMPLING LOCATION AND IDENTIFICATION NUMBER

DiSorbo
Environmental Consulting Firm

8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759



Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining	DATE:02/29/16	FILE:WestRef-dA45

FIGURE 5
SOIL SAMPLING LOCATIONS
APRIL 17, 2015
LPG BLOWDOWN TANK

N

0 10
SCALE IN FEET

LEGEND

A SOIL SAMPLING LOCATION AND IDENTIFICATION NUMBER

DiSorbo
Environmental Consulting Firm

8501 N. MoPac Expy.
Suite 300
Austin, Texas 78759

Appendix A

Analytical

Appendix A-1

Hall Environmental Analysis Laboratory, Inc. –

August 28, 2014

Analytical Report No. 1408B6

8/19/14

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

August 28, 2014

Thurman B. Larsen
Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0258
FAX (505) 722-0210

RE: Underground Tank

OrderNo.: 1408B60

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/21/2014 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 qualifers 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Underground Tank
Lab ID: 1408B60-001 **Matrix:** AQUEOUS

Client Sample ID: Tank N of Bullet farm
Collection Date: 8/19/2014 1:15:00 PM
Received Date: 8/21/2014 4:52:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 7470: MERCURY						Analyst:	**MMD**
Mercury	ND	0.020		mg/L	10	8/26/2014 10:46:23 AM	14939
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst:	**ELS**
Arsenic	ND	0.10		mg/L	5	8/26/2014 11:46:06 AM	14938
Barium	0.072	0.020		mg/L	1	8/26/2014 11:44:04 AM	14938
Cadmium	ND	0.0020		mg/L	1	8/26/2014 11:44:04 AM	14938
Chromium	0.41	0.0060		mg/L	1	8/26/2014 11:44:04 AM	14938
Lead	ND	0.025		mg/L	5	8/26/2014 11:46:06 AM	14938
Selenium	ND	0.25		mg/L	5	8/26/2014 11:46:06 AM	14938
Silver	ND	0.0050		mg/L	1	8/26/2014 11:44:04 AM	14938
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Acenaphthene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Acenaphthylene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Aniline	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Anthracene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Azobenzene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Benz(a)anthracene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Benzo(a)pyrene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Benzo(b)fluoranthene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Benzo(k)fluoranthene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Benzoic acid	610	100		µg/L	5	8/26/2014 10:35:19 AM	14928
Benzyl alcohol	320	50		µg/L	5	8/26/2014 10:35:19 AM	14928
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Butyl benzyl phthalate	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Carbazole	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
4-Chloroaniline	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
2-Chloronaphthalene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
2-Chlorophenol	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Chrysene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Di-n-butyl phthalate	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Di-n-octyl phthalate	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928

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
- S Spike Recovery 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.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Underground Tank
Lab ID: 1408B60-001 **Matrix:** AQUEOUS

Client Sample ID: Tank N of Bullet farm
Collection Date: 8/19/2014 1:15:00 PM
Received Date: 8/21/2014 4:52:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Dibenzofuran	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
1,2-Dichlorobenzene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
1,3-Dichlorobenzene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
1,4-Dichlorobenzene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Diethyl phthalate	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Dimethyl phthalate	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
2,4-Dichlorophenol	ND	20		µg/L	1	8/25/2014 7:23:26 PM	14928
2,4-Dimethylphenol	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/25/2014 7:23:26 PM	14928
2,4-Dinitrophenol	ND	20		µg/L	1	8/25/2014 7:23:26 PM	14928
2,4-Dinitrotoluene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
2,6-Dinitrotoluene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Fluoranthene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Fluorene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Hexachlorobenzene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Hexachlorobutadiene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Hexachloroethane	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Isophorone	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
1-Methylnaphthalene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
2-Methylnaphthalene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
2-Methylphenol	ND	20		µg/L	1	8/25/2014 7:23:26 PM	14928
3+4-Methylphenol	21	10		µg/L	1	8/25/2014 7:23:26 PM	14928
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
N-Nitrosodimethylamine	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Naphthalene	18	10		µg/L	1	8/25/2014 7:23:26 PM	14928
2-Nitroaniline	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
3-Nitroaniline	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
4-Nitroaniline	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Nitrobenzene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
2-Nitrophenol	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
4-Nitrophenol	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Pentachlorophenol	ND	20		µg/L	1	8/25/2014 7:23:26 PM	14928
Phenanthrene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Phenol	17	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Pyrene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928

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
- S Spike Recovery 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.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Underground Tank
Lab ID: 1408B60-001 **Matrix:** AQUEOUS

Client Sample ID: Tank N of Bullet farm
Collection Date: 8/19/2014 1:15:00 PM
Received Date: 8/21/2014 4:52:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Pyridine	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/25/2014 7:23:26 PM	14928
Surr: 2-Fluorophenol	38.6	12.1-85.8		%REC	1	8/25/2014 7:23:26 PM	14928
Surr: Phenol-d5	38.8	17.7-65.8		%REC	1	8/25/2014 7:23:26 PM	14928
Surr: 2,4,6-Tribromophenol	92.6	26-138		%REC	1	8/25/2014 7:23:26 PM	14928
Surr: Nitrobenzene-d5	78.8	47.5-119		%REC	1	8/25/2014 7:23:26 PM	14928
Surr: 2-Fluorobiphenyl	84.8	48.1-106		%REC	1	8/25/2014 7:23:26 PM	14928
Surr: 4-Terphenyl-d14	80.1	44-113		%REC	1	8/25/2014 7:23:26 PM	14928
EPA METHOD 8270C TCLP						Analyst:	**DAM**
2-Methylphenol	ND	200		mg/L	1	8/25/2014 3:01:00 PM	14927
3+4-Methylphenol	ND	200		mg/L	1	8/25/2014 3:01:00 PM	14927
Phenol	ND	200		mg/L	1	8/25/2014 3:01:00 PM	14927
2,4-Dinitrotoluene	ND	0.13		mg/L	1	8/25/2014 3:01:00 PM	14927
Hexachlorobenzene	ND	0.13		mg/L	1	8/25/2014 3:01:00 PM	14927
Hexachlorobutadiene	ND	0.50		mg/L	1	8/25/2014 3:01:00 PM	14927
Hexachloroethane	ND	3.0		mg/L	1	8/25/2014 3:01:00 PM	14927
Nitrobenzene	ND	2.0		mg/L	1	8/25/2014 3:01:00 PM	14927
Pentachlorophenol	ND	100		mg/L	1	8/25/2014 3:01:00 PM	14927
Pyridine	ND	5.0		mg/L	1	8/25/2014 3:01:00 PM	14927
2,4,5-Trichlorophenol	ND	400		mg/L	1	8/25/2014 3:01:00 PM	14927
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	8/25/2014 3:01:00 PM	14927
Cresols, Total	ND	200		mg/L	1	8/25/2014 3:01:00 PM	14927
Surr: 2-Fluorophenol	80.6	18.6-88.6		%REC	1	8/25/2014 3:01:00 PM	14927
Surr: Phenol-d5	59.6	19.5-61.8		%REC	1	8/25/2014 3:01:00 PM	14927
Surr: 2,4,6-Tribromophenol	86.0	29.7-130		%REC	1	8/25/2014 3:01:00 PM	14927
Surr: Nitrobenzene-d5	122	45.1-101	S	%REC	1	8/25/2014 3:01:00 PM	14927
Surr: 2-Fluorobiphenyl	110	46.6-99.3	S	%REC	1	8/25/2014 3:01:00 PM	14927
Surr: 4-Terphenyl-d14	106	40.8-109		%REC	1	8/25/2014 3:01:00 PM	14927
EPA METHOD 8260B: VOLATILES						Analyst:	**cadg**
Benzene	30	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Toluene	300	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Ethylbenzene	120	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Methyl tert-butyl ether (MTBE)	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
1,2,4-Trimethylbenzene	260	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
1,3,5-Trimethylbenzene	92	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
1,2-Dichloroethane (EDC)	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Underground Tank
Lab ID: 1408B60-001 **Matrix:** AQUEOUS

Client Sample ID: Tank N of Bullet farm
Collection Date: 8/19/2014 1:15:00 PM
Received Date: 8/21/2014 4:52:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromoethane (EDB)	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Naphthalene	ND	40	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
1-Methylnaphthalene	ND	80	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
2-Methylnaphthalene	ND	80	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Acetone	ND	200	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Bromobenzene	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Bromodichloromethane	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Bromoform	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Bromomethane	ND	60	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
2-Butanone	ND	200	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Carbon disulfide	ND	200	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Carbon Tetrachloride	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Chlorobenzene	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Chloroethane	ND	40	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Chloroform	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Chloromethane	ND	60	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
2-Chlorotoluene	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
4-Chlorotoluene	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
cis-1,2-DCE	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
cis-1,3-Dichloropropene	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
1,2-Dibromo-3-chloropropane	ND	40	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Dibromochloromethane	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Dibromomethane	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
1,2-Dichlorobenzene	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
1,3-Dichlorobenzene	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
1,4-Dichlorobenzene	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Dichlorodifluoromethane	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
1,1-Dichloroethane	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
1,1-Dichloroethene	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
1,2-Dichloropropane	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
1,3-Dichloropropane	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
2,2-Dichloropropane	ND	40	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
1,1-Dichloropropene	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Hexachlorobutadiene	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
2-Hexanone	ND	200	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Isopropylbenzene	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
4-Isopropyltoluene	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
4-Methyl-2-pentanone	ND	200	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Methylene Chloride	ND	60	P	µg/L	20	8/26/2014 7:23:00 PM	R20817

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
- S Spike Recovery 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.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Underground Tank
Lab ID: 1408B60-001 **Matrix:** AQUEOUS

Client Sample ID: Tank N of Bullet farm
Collection Date: 8/19/2014 1:15:00 PM
Received Date: 8/21/2014 4:52:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst:	**cadg**
n-Butylbenzene	ND	60	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
n-Propylbenzene	45	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
sec-Butylbenzene	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Styrene	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
tert-Butylbenzene	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
1,1,1,2-Tetrachloroethane	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
1,1,2,2-Tetrachloroethane	ND	40	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Tetrachloroethene (PCE)	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
trans-1,2-DCE	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
trans-1,3-Dichloropropene	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
1,2,3-Trichlorobenzene	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
1,2,4-Trichlorobenzene	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
1,1,1-Trichloroethane	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
1,1,2-Trichloroethane	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Trichloroethene (TCE)	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Trichlorofluoromethane	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
1,2,3-Trichloropropane	ND	40	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Vinyl chloride	ND	20	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Xylenes, Total	650	30	P	µg/L	20	8/26/2014 7:23:00 PM	R20817
Surr: 1,2-Dichloroethane-d4	163	70-130	SP	%REC	20	8/26/2014 7:23:00 PM	R20817
Surr: 4-Bromofluorobenzene	93.7	70-130	P	%REC	20	8/26/2014 7:23:00 PM	R20817
Surr: Dibromofluoromethane	113	70-130	P	%REC	20	8/26/2014 7:23:00 PM	R20817
Surr: Toluene-d8	92.6	70-130	P	%REC	20	8/26/2014 7:23:00 PM	R20817
TCLP VOLATILES BY 8260B						Analyst:	**cadg**
Benzene	ND	0.50	P	mg/L	1	8/25/2014 7:34:11 PM	R20777
2-Butanone	ND	10	P	mg/L	1	8/25/2014 7:34:11 PM	R20777
Carbon Tetrachloride	ND	0.50	P	mg/L	1	8/25/2014 7:34:11 PM	R20777
Chlorobenzene	ND	100	P	mg/L	1	8/25/2014 7:34:11 PM	R20777
Chloroform	ND	6.0	P	mg/L	1	8/25/2014 7:34:11 PM	R20777
1,4-Dichlorobenzene	ND	7.5	P	mg/L	1	8/25/2014 7:34:11 PM	R20777
1,2-Dichloroethane (EDC)	ND	0.50	P	mg/L	1	8/25/2014 7:34:11 PM	R20777
1,1-Dichloroethene	ND	0.70	P	mg/L	1	8/25/2014 7:34:11 PM	R20777
Hexachlorobutadiene	ND	0.50	P	mg/L	1	8/25/2014 7:34:11 PM	R20777
Tetrachloroethene (PCE)	ND	0.70	P	mg/L	1	8/25/2014 7:34:11 PM	R20777
Trichloroethene (TCE)	ND	0.50	P	mg/L	1	8/25/2014 7:34:11 PM	R20777
Vinyl chloride	ND	0.20	P	mg/L	1	8/25/2014 7:34:11 PM	R20777
Surr: 1,2-Dichloroethane-d4	103	70-130	P	%REC	1	8/25/2014 7:34:11 PM	R20777
Surr: 4-Bromofluorobenzene	97.2	70-130	P	%REC	1	8/25/2014 7:34:11 PM	R20777
Surr: Dibromofluoromethane	91.1	70-130	P	%REC	1	8/25/2014 7:34:11 PM	R20777

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
- S Spike Recovery 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.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Tank N of Bullet farm
Project: Underground Tank
Collection Date: 8/19/2014 1:15:00 PM
Lab ID: 1408B60-001
Matrix: AQUEOUS
Received Date: 8/21/2014 4:52:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
TCLP VOLATILES BY 8260B							Analyst: **cadg**
Surr: Toluene-d8	102	70-130	P	%REC	1	8/25/2014 7:34:11 PM	R20777

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.
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#: 1408B60

28-Aug-14

Client: Western Refining Southwest, Gallup

Project: Underground Tank

Sample ID **5mL rb** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R20777** RunNo: **20777**

Prep Date: Analysis Date: **8/25/2014** SeqNo: **604699** 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								
1,2-Dichloroethane (EDC)	ND	1.0								
2-Butanone	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroform	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
1,1-Dichloroethene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
Tetrachloroethene (PCE)	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Vinyl chloride	ND	1.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		99.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.1	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R20777** RunNo: **20777**

Prep Date: Analysis Date: **8/25/2014** SeqNo: **604701** 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	21	1.0	20.00	0	104	80	120			
Chlorobenzene	19	1.0	20.00	0	96.1	70	130			
1,1-Dichloroethene	24	1.0	20.00	0	120	82.6	131			
Trichloroethene (TCE)	18	1.0	20.00	0	90.7	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		106	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.9	70	130			
Surr: Dibromofluoromethane	9.5		10.00		94.7	70	130			
Surr: Toluene-d8	11		10.00		108	70	130			

Sample ID **5mL rb** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R20817** RunNo: **20817**

Prep Date: Analysis Date: **8/26/2014** SeqNo: **605724** 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								

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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1408B60

28-Aug-14

Client: Western Refining Southwest, Gallup

Project: Underground Tank

Sample ID 5mL rb	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES	
Client ID: PBW	Batch ID: R20817	RunNo: 20817	
Prep Date:	Analysis Date: 8/26/2014	SeqNo: 605724	Units: µg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
Hexachlorobutadiene	ND	1.0								

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.
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#: 1408B60
28-Aug-14

Client: Western Refining Southwest, Gallup
Project: Underground Tank

Sample ID **5mL rb** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW** Batch ID: **R20817** RunNo: **20817**
Prep Date: Analysis Date: **8/26/2014** SeqNo: **605724** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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	16		10.00		164	70	130			S
Surr: 4-Bromofluorobenzene	9.6		10.00		96.2	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.6		10.00		95.8	70	130			

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW** Batch ID: **R20817** RunNo: **20817**
Prep Date: Analysis Date: **8/26/2014** SeqNo: **605726** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	114	70	130			
Toluene	18	1.0	20.00	0	91.7	80	120			
Chlorobenzene	18	1.0	20.00	0	92.4	70	130			
1,1-Dichloroethene	25	1.0	20.00	0	126	82.6	131			
Trichloroethene (TCE)	21	1.0	20.00	0	104	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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1408B60

28-Aug-14

Client: Western Refining Southwest, Gallup

Project: Underground Tank

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R20817** RunNo: **20817**

Prep Date: Analysis Date: **8/26/2014** SeqNo: **605726** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	16		10.00		158	70	130			S
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	11		10.00		106	70	130			
Surr: Toluene-d8	9.0		10.00		90.4	70	130			

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.
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#: 1408B60

28-Aug-14

Client: Western Refining Southwest, Gallup

Project: Underground Tank

Sample ID **5mL rb** SampType: **MBLK** TestCode: **TCLP Volatiles by 8260B**

Client ID: **PBW** Batch ID: **R20777** RunNo: **20777**

Prep Date: Analysis Date: **8/25/2014** SeqNo: **605012** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.50								
2-Butanone	ND	10								
Carbon Tetrachloride	ND	0.50								
Chlorobenzene	ND	100								
Chloroform	ND	6.0								
1,4-Dichlorobenzene	ND	7.5								
1,2-Dichloroethane (EDC)	ND	0.50								
1,1-Dichloroethene	ND	0.70								
Hexachlorobutadiene	ND	0.50								
Tetrachloroethene (PCE)	ND	0.70								
Trichloroethene (TCE)	ND	0.50								
Vinyl chloride	ND	0.20								
Surr: 1,2-Dichloroethane-d4	0.010		0.01000		99.8	70	130			
Surr: 4-Bromofluorobenzene	0.010		0.01000		100	70	130			
Surr: Dibromofluoromethane	0.0092		0.01000		92.1	70	130			
Surr: Toluene-d8	0.010		0.01000		102	70	130			

Sample ID **100ng lcs** SampType: **LCS** TestCode: **TCLP Volatiles by 8260B**

Client ID: **LCSW** Batch ID: **R20777** RunNo: **20777**

Prep Date: Analysis Date: **8/25/2014** SeqNo: **605013** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.021	0.010	0.02000	0	106	70	130			
Chlorobenzene	0.019	0.010	0.02000	0	96.1	70	130			
1,1-Dichloroethene	0.024	0.010	0.02000	0	120	82.6	131			
Trichloroethene (TCE)	0.018	0.010	0.02000	0	90.7	70	130			
Surr: 1,2-Dichloroethane-d4	0.011		0.01000		106	70	130			
Surr: 4-Bromofluorobenzene	0.0099		0.01000		98.9	70	130			
Surr: Dibromofluoromethane	0.0095		0.01000		94.7	70	130			
Surr: Toluene-d8	0.011		0.01000		108	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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1408B60

28-Aug-14

Client: Western Refining Southwest, Gallup

Project: Underground Tank

Sample ID mb-14928	SampType: MBLK	TestCode: EPA Method 8270C: Semivolatiles	
Client ID: PBW	Batch ID: 14928	RunNo: 20778	
Prep Date: 8/25/2014	Analysis Date: 8/25/2014	SeqNo: 604653	Units: µg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1408B60

28-Aug-14

Client: Western Refining Southwest, Gallup

Project: Underground Tank

Sample ID mb-14928	SampType: MBLK	TestCode: EPA Method 8270C: Semivolatiles	
Client ID: PBW	Batch ID: 14928	RunNo: 20778	
Prep Date: 8/25/2014	Analysis Date: 8/25/2014	SeqNo: 604653	Units: µg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	20								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	140		200.0		68.6	12.1	85.8			
Surr: Phenol-d5	100		200.0		51.9	17.7	65.8			
Surr: 2,4,6-Tribromophenol	100		200.0		50.5	26	138			
Surr: Nitrobenzene-d5	100		100.0		103	47.5	119			
Surr: 2-Fluorobiphenyl	100		100.0		104	48.1	106			
Surr: 4-Terphenyl-d14	85		100.0		84.5	44	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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1408B60

28-Aug-14

Client: Western Refining Southwest, Gallup

Project: Underground Tank

Sample ID Ics-14928 SampType: LCS TestCode: EPA Method 8270C: Semivolatiles

Client ID: LCSW Batch ID: 14928 RunNo: 20778

Prep Date: 8/25/2014 Analysis Date: 8/25/2014 SeqNo: 604654 Units: µg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	89	10	100.0	0	89.2	50.3	109			
4-Chloro-3-methylphenol	200	10	200.0	0	101	51.2	113			
2-Chlorophenol	190	10	200.0	0	97.1	48.5	104			
1,4-Dichlorobenzene	79	10	100.0	0	79.2	39.5	106			
2,4-Dinitrotoluene	83	10	100.0	0	83.2	45.4	107			
N-Nitrosodi-n-propylamine	93	10	100.0	0	93.3	50.4	119			
4-Nitrophenol	120	10	200.0	0	59.6	15.5	62.2			
Pentachlorophenol	150	20	200.0	0	73.0	23.5	93.5			
Phenol	120	10	200.0	0	59.2	26.8	65.6			
Pyrene	93	10	100.0	0	92.6	54.4	108			
1,2,4-Trichlorobenzene	82	10	100.0	0	82.0	39.9	106			
Surr: 2-Fluorophenol	150		200.0		74.7	12.1	85.8			
Surr: Phenol-d5	110		200.0		53.8	17.7	65.8			
Surr: 2,4,6-Tribromophenol	140		200.0		71.4	26	138			
Surr: Nitrobenzene-d5	100		100.0		104	47.5	119			
Surr: 2-Fluorobiphenyl	100		100.0		101	48.1	106			
Surr: 4-Terphenyl-d14	97		100.0		97.4	44	113			

Sample ID Icsd-14928 SampType: LCSD TestCode: EPA Method 8270C: Semivolatiles

Client ID: LCSS02 Batch ID: 14928 RunNo: 20778

Prep Date: 8/25/2014 Analysis Date: 8/25/2014 SeqNo: 604958 Units: µg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	100	10	100.0	0	104	50.3	109	15.4	27.2	
4-Chloro-3-methylphenol	220	10	200.0	0	110	51.2	113	8.80	25.9	
2-Chlorophenol	160	10	200.0	0	78.7	48.5	104	21.0	22.5	
1,4-Dichlorobenzene	87	10	100.0	0	87.2	39.5	106	9.59	24.6	
2,4-Dinitrotoluene	110	10	100.0	0	111	45.4	107	28.6	25.3	RS
N-Nitrosodi-n-propylamine	100	10	100.0	0	104	50.4	119	11.3	23.6	
4-Nitrophenol	71	10	200.0	0	35.6	15.5	62.2	50.5	34.7	R
Pentachlorophenol	89	20	200.0	0	44.6	23.5	93.5	48.3	32.8	R
Phenol	110	10	200.0	0	56.9	26.8	65.6	3.96	25.5	
Pyrene	120	10	100.0	0	125	54.4	108	29.6	31.4	S
1,2,4-Trichlorobenzene	87	10	100.0	0	86.8	39.9	106	5.71	25.9	
Surr: 2-Fluorophenol	92		200.0		46.2	12.1	85.8	0	0	
Surr: Phenol-d5	110		200.0		53.0	17.7	65.8	0	0	
Surr: 2,4,6-Tribromophenol	100		200.0		52.2	26	138	0	0	
Surr: Nitrobenzene-d5	110		100.0		108	47.5	119	0	0	
Surr: 2-Fluorobiphenyl	110		100.0		112	48.1	106	0	0	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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408B60**

28-Aug-14

Client: Western Refining Southwest, Gallup

Project: Underground Tank

Sample ID **lcsd-14928**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **LCSS02**	Batch ID: **14928**	RunNo: **20778**	
Prep Date: **8/25/2014**	Analysis Date: **8/25/2014**	SeqNo: **604958**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	110		100.0		110	44	113	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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1408B60

28-Aug-14

Client: Western Refining Southwest, Gallup

Project: Underground Tank

Sample ID **mb-14927** SampType: **MBLK** TestCode: **EPA Method 8270C TCLP**

Client ID: **PBS** Batch ID: **14927** RunNo: **20778**

Prep Date: **8/25/2014** Analysis Date: **8/25/2014** SeqNo: **604663** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
Phenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Surr: 2-Fluorophenol	0.13		0.2000		66.6	18.6	88.6			
Surr: Phenol-d5	0.11		0.2000		53.5	19.5	61.8			
Surr: 2,4,6-Tribromophenol	0.11		0.2000		56.3	29.7	130			
Surr: Nitrobenzene-d5	0.10		0.1000		104	45.1	101			S
Surr: 2-Fluorobiphenyl	0.10		0.1000		104	46.6	99.3			S
Surr: 4-Terphenyl-d14	0.093		0.1000		92.5	40.8	109			

Sample ID **lcs-14927** SampType: **LCS** TestCode: **EPA Method 8270C TCLP**

Client ID: **LCSS** Batch ID: **14927** RunNo: **20778**

Prep Date: **8/25/2014** Analysis Date: **8/25/2014** SeqNo: **604665** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.091	0.010	0.1000	0	90.7	32.1	120			
3+4-Methylphenol	0.19	0.010	0.2000	0	96.2	10.9	204			
2,4-Dinitrotoluene	0.098	0.010	0.1000	0	97.5	41.9	116			
Hexachlorobenzene	0.11	0.010	0.1000	0	108	37.7	99.4			S
Hexachlorobutadiene	0.078	0.010	0.1000	0	77.8	30.6	107			
Hexachloroethane	0.092	0.010	0.1000	0	91.7	27.4	121			
Nitrobenzene	0.11	0.010	0.1000	0	106	28.6	134			
Pentachlorophenol	0.070	0.010	0.1000	0	70.2	7.71	111			
Pyridine	0.059	0.010	0.1000	0	58.6	8.54	92.4			
2,4,5-Trichlorophenol	0.089	0.010	0.1000	0	89.4	25.3	146			
2,4,6-Trichlorophenol	0.081	0.010	0.1000	0	81.1	21.5	145			
Cresols, Total	0.28	0.010	0.3000	0	94.3	30	136			
Surr: 2-Fluorophenol	0.14		0.2000		71.5	18.6	88.6			
Surr: Phenol-d5	0.098		0.2000		48.9	19.5	61.8			

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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1408B60
28-Aug-14

Client: Western Refining Southwest, Gallup
Project: Underground Tank

Sample ID lcs-14927 SampType: LCS TestCode: EPA Method 8270C TCLP
Client ID: LCSS Batch ID: 14927 RunNo: 20778
Prep Date: 8/25/2014 Analysis Date: 8/25/2014 SeqNo: 604665 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	0.14		0.2000		72.3	29.7	130			
Surr: Nitrobenzene-d5	0.10		0.1000		104	45.1	101			S
Surr: 2-Fluorobiphenyl	0.096		0.1000		96.2	46.6	99.3			
Surr: 4-Terphenyl-d14	0.11		0.1000		110	40.8	109			S

Sample ID 1408b60-001dms SampType: MS TestCode: EPA Method 8270C TCLP
Client ID: Tank N of Bullet far Batch ID: 14927 RunNo: 20778
Prep Date: 8/25/2014 Analysis Date: 8/25/2014 SeqNo: 604667 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.095	0.010	0.1000	0	95.1	32.1	120			
3+4-Methylphenol	0.21	0.010	0.2000	0.004700	102	10.9	204			
2,4-Dinitrotoluene	0.10	0.010	0.1000	0	103	41.9	116			
Hexachlorobenzene	0.12	0.010	0.1000	0	118	37.7	99.4			S
Hexachlorobutadiene	0.093	0.010	0.1000	0	92.8	30.6	107			
Hexachloroethane	0.11	0.010	0.1000	0	107	27.4	121			
Nitrobenzene	0.12	0.010	0.1000	0	120	28.6	134			
Pentachlorophenol	0.10	0.010	0.1000	0.003560	101	7.71	111			
Pyridine	0.044	0.010	0.1000	0	43.7	8.54	92.4			
2,4,5-Trichlorophenol	0.10	0.010	0.1000	0	100	25.3	146			
2,4,6-Trichlorophenol	0.10	0.010	0.1000	0	99.6	21.5	145			
Cresols, Total	0.30	0.010	0.3000	0.009320	98.4	10.6	179			
Surr: 2-Fluorophenol	0.14		0.2000		70.5	18.6	88.6			
Surr: Phenol-d5	0.11		0.2000		55.1	19.5	61.8			
Surr: 2,4,6-Tribromophenol	0.17		0.2000		84.5	29.7	130			
Surr: Nitrobenzene-d5	0.11		0.1000		113	45.1	101			S
Surr: 2-Fluorobiphenyl	0.12		0.1000		117	46.6	99.3			S
Surr: 4-Terphenyl-d14	0.12		0.1000		119	40.8	109			S

Sample ID 1408b60-001dmsd SampType: MSD TestCode: EPA Method 8270C TCLP
Client ID: Tank N of Bullet far Batch ID: 14927 RunNo: 20778
Prep Date: 8/25/2014 Analysis Date: 8/25/2014 SeqNo: 604668 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.073	0.010	0.1000	0	72.6	32.1	120	26.8	20	R
3+4-Methylphenol	0.14	0.010	0.2000	0.004700	68.4	10.9	204	38.7	20	R
2,4-Dinitrotoluene	0.086	0.010	0.1000	0	86.3	41.9	116	17.9	23.2	
Hexachlorobenzene	0.096	0.010	0.1000	0	96.1	37.7	99.4	20.7	20	R
Hexachlorobutadiene	0.067	0.010	0.1000	0	67.0	30.6	107	32.3	20	R
Hexachloroethane	0.078	0.010	0.1000	0	77.7	27.4	121	31.7	31.3	R

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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1408B60

28-Aug-14

Client: Western Refining Southwest, Gallup

Project: Underground Tank

Sample ID 1408b60-001dmsd SampType: MSD TestCode: EPA Method 8270C TCLP

Client ID: Tank N of Bullet far Batch ID: 14927 RunNo: 20778

Prep Date: 8/25/2014 Analysis Date: 8/25/2014 SeqNo: 604668 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrobenzene	0.085	0.010	0.1000	0	84.7	28.6	134	34.2	26.6	R
Pentachlorophenol	0.095	0.010	0.1000	0.003560	91.5	7.71	111	9.54	27.9	
Pyridine	0.029	0.010	0.1000	0	29.3	8.54	92.4	39.4	47.4	
2,4,5-Trichlorophenol	0.076	0.010	0.1000	0	76.5	25.3	146	27.0	36.9	
2,4,6-Trichlorophenol	0.077	0.010	0.1000	0	76.6	21.5	145	26.1	37.2	
Cresols, Total	0.21	0.010	0.3000	0.009320	68.3	10.6	179	34.9	27.4	R
Surr: 2-Fluorophenol	0.12		0.2000		58.9	18.6	88.6	0	0	
Surr: Phenol-d5	0.083		0.2000		41.6	19.5	61.8	0	0	
Surr: 2,4,6-Tribromophenol	0.14		0.2000		68.2	29.7	130	0	0	
Surr: Nitrobenzene-d5	0.092		0.1000		92.3	45.1	101	0	0	
Surr: 2-Fluorobiphenyl	0.089		0.1000		88.5	46.6	99.3	0	0	
Surr: 4-Terphenyl-d14	0.095		0.1000		95.4	40.8	109	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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1408B60

28-Aug-14

Client: Western Refining Southwest, Gallup

Project: Underground Tank

Sample ID	MB-14939	SampType:	MBLK		TestCode:	EPA Method 7470: Mercury					
Client ID:	PBW	Batch ID:	14939		RunNo:	20788					
Prep Date:	8/25/2014	Analysis Date:	8/26/2014		SeqNo:	605048	Units:	mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		ND	0.00020								

Sample ID	LCS-14939	SampType:	LCS		TestCode:	EPA Method 7470: Mercury					
Client ID:	LCSW	Batch ID:	14939		RunNo:	20788					
Prep Date:	8/25/2014	Analysis Date:	8/26/2014		SeqNo:	605049	Units:	mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.0051	0.00020	0.005000	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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1408B60

28-Aug-14

Client: Western Refining Southwest, Gallup

Project: Underground Tank

Sample ID MB-14938 SampType: MBLK TestCode: EPA 6010B: Total Recoverable Metals

Client ID: PBW Batch ID: 14938 RunNo: 20813

Prep Date: 8/25/2014 Analysis Date: 8/26/2014 SeqNo: 605616 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.020								
Barium	ND	0.020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Lead	ND	0.0050								
Selenium	ND	0.050								
Silver	ND	0.0050								

Sample ID LCS-14938 SampType: LCS TestCode: EPA 6010B: Total Recoverable Metals

Client ID: LCSW Batch ID: 14938 RunNo: 20813

Prep Date: 8/25/2014 Analysis Date: 8/26/2014 SeqNo: 605617 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.50	0.020	0.5000	0	100	80	120			
Barium	0.48	0.020	0.5000	0	97.0	80	120			
Cadmium	0.49	0.0020	0.5000	0	98.2	80	120			
Chromium	0.49	0.0060	0.5000	0	97.6	80	120			
Lead	0.49	0.0050	0.5000	0	98.0	80	120			
Selenium	0.49	0.050	0.5000	0	98.8	80	120			
Silver	0.49	0.0050	0.5000	0	97.4	80	120			

Sample ID LCS Spike Check SampType: LCS TestCode: EPA 6010B: Total Recoverable Metals

Client ID: LCSW Batch ID: 14938 RunNo: 20813

Prep Date: 8/25/2014 Analysis Date: 8/26/2014 SeqNo: 605619 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.49	0.020	0.5000	0	98.9	80	120			
Barium	0.47	0.020	0.5000	0	93.1	80	120			
Cadmium	0.47	0.0020	0.5000	0	94.6	80	120			
Chromium	0.47	0.0060	0.5000	0	93.8	80	120			
Lead	0.47	0.0050	0.5000	0	93.4	80	120			
Selenium	0.45	0.050	0.5000	0	90.4	80	120			
Silver	0.089	0.0050	0.1000	0	88.5	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
- S Spike Recovery 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.
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
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: 1408B60 RcptNo: 1

Received by/date: NLG 08/21/14

Logged By: Lindsay Mangin 8/21/2014 4:52:00 PM

Completed By: Lindsay Mangin 8/22/2014 8:08:35 AM

Reviewed By: mz 08/22/14

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

FOR METALS ANALYSIS: ADDED 10 mL HNO_3 TO 00/E FOR ACCEPTABLE pH. 08/22/14 @ 0830

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? Yes ✓ No
    (Note discrepancies on chain of custody)
    # of preserved bottles checked for pH: 0 (<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? Yes ✓ No Checked by:
    (If no, notify customer for authorization.)

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

Chain-of-Custody Record

Client: Western - Refining

Gallup Refinery

Mailing Address: 92 GIANT CROSSING ROAD

Gallup NM 87301

Phone #: 505 722 3833

email or Fax#: 505 863 0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

☐ Other _____

☐ EDD (Type) _____

☐ Standard ☒ Rush

Project Name: Underground Tank

Project #:

Tank North of Bullet Farm

Project Manager: Beck Larsen

Sampler:

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1408860	TOT VOC (8260)	TCLP VOC (8260)	TOT SVOC (8270)	TCLP SVOC (8270)	TCLP METALS 6010/6020	Air Bubbles (Y or N)
8/19/2014	13:15	H2O	Tank N of Bullet farm	40ml-3	HCL	-001	X					
8/19/2014	13:15	H2O	Tank N of Bullet farm	40ml-3	HCL			X				
8/19/2014	13:15	H2O	Tank N of Bullet farm	1-liter - 1	None				X			
8/19/2014	13:15	H2O	Tank N of Bullet farm	1-liter - 1	None					X		
8/19/2014	13:15	H2O	Tank N of Bullet farm	500ml-1	HNO3						X	

Date:	Time:	Relinquished by:	Received by:	Date Time
08-21-14	14:00	[signature]	[signature]	08/21/14 1652
8-21-14	1652	[signature]		

Fire Training

= Bullet Tank

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Appendix A-2

Hall Environmental Analysis Laboratory, Inc. –

September 24, 2014

Analytical Report No. 1409871

9/15/14

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

September 24, 2014

Beck Larsen
Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0258
FAX (505) 722-0210

RE: Excavation Soil Underground Tank Soil Piles OrderNo.: 1409871

Dear Beck Larsen:

Hall Environmental Analysis Laboratory received 1 sample(s) on 9/17/2014 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 qualifers 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1409871**
Date Reported: **9/24/2014**

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Soil Underground Tank Soil
Lab ID: 1409871-001 **Matrix:** SOIL

Client Sample ID: Excavation Soil Underground Ta
Collection Date: 9/15/2014 2:00:00 PM
Received Date: 9/17/2014 4:32:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	840	10		mg/Kg	1	9/19/2014 7:08:20 PM	15363
Surr: DNOP	101	57.9-140		%REC	1	9/19/2014 7:08:20 PM	15363
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	5.5	5.0		mg/Kg	1	9/22/2014 10:23:45 PM	15378
Surr: BFB	99.2	80-120		%REC	1	9/22/2014 10:23:45 PM	15378
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.074	0.050		mg/Kg	1	9/22/2014 10:23:45 PM	15378
Toluene	ND	0.050		mg/Kg	1	9/22/2014 10:23:45 PM	15378
Ethylbenzene	ND	0.050		mg/Kg	1	9/22/2014 10:23:45 PM	15378
Xylenes, Total	0.34	0.10		mg/Kg	1	9/22/2014 10:23:45 PM	15378
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	9/22/2014 10:23:45 PM	15378
MERCURY, TCLP						Analyst: **JLF**	
Mercury	ND	0.020		mg/L	1	9/23/2014 10:53:44 AM	15428
EPA METHOD 6010B: TCLP METALS						Analyst: **ELS**	
Arsenic	ND	5.0		mg/L	1	9/20/2014 10:10:57 AM	15406
Barium	ND	100		mg/L	1	9/20/2014 10:10:57 AM	15406
Cadmium	ND	1.0		mg/L	1	9/20/2014 10:10:57 AM	15406
Chromium	ND	5.0		mg/L	1	9/20/2014 10:10:57 AM	15406
Lead	ND	5.0		mg/L	1	9/20/2014 10:10:57 AM	15406
Selenium	ND	1.0		mg/L	1	9/20/2014 10:10:57 AM	15406
Silver	ND	5.0		mg/L	1	9/20/2014 10:10:57 AM	15406
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	9/23/2014 12:27:32 PM	15413
3+4-Methylphenol	ND	200		mg/L	1	9/23/2014 12:27:32 PM	15413
Phenol	ND	200		mg/L	1	9/23/2014 12:27:32 PM	15413
2,4-Dinitrotoluene	ND	0.13		mg/L	1	9/23/2014 12:27:32 PM	15413
Hexachlorobenzene	ND	0.13		mg/L	1	9/23/2014 12:27:32 PM	15413
Hexachlorobutadiene	ND	0.50		mg/L	1	9/23/2014 12:27:32 PM	15413
Hexachloroethane	ND	3.0		mg/L	1	9/23/2014 12:27:32 PM	15413
Nitrobenzene	ND	2.0		mg/L	1	9/23/2014 12:27:32 PM	15413
Pentachlorophenol	ND	100		mg/L	1	9/23/2014 12:27:32 PM	15413
Pyridine	ND	5.0		mg/L	1	9/23/2014 12:27:32 PM	15413
2,4,5-Trichlorophenol	ND	400		mg/L	1	9/23/2014 12:27:32 PM	15413
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	9/23/2014 12:27:32 PM	15413
Cresols, Total	ND	200		mg/L	1	9/23/2014 12:27:32 PM	15413
Surr: 2-Fluorophenol	53.7	25-105		%REC	1	9/23/2014 12:27:32 PM	15413
Surr: Phenol-d5	55.0	22.3-70.3		%REC	1	9/23/2014 12:27:32 PM	15413

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Excavation Soil Underground Ta
Project: Excavation Soil Underground Tank Soil
Collection Date: 9/15/2014 2:00:00 PM
Lab ID: 1409871-001 **Matrix:** SOIL **Received Date:** 9/17/2014 4:32:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst:	**DAM**
Surr: 2,4,6-Tribromophenol	44.8	30.4-134		%REC	1	9/23/2014 12:27:32 PM	15413
Surr: Nitrobenzene-d5	92.3	54.8-128		%REC	1	9/23/2014 12:27:32 PM	15413
Surr: 2-Fluorobiphenyl	91.4	53.3-122		%REC	1	9/23/2014 12:27:32 PM	15413
Surr: 4-Terphenyl-d14	84.9	51.8-133		%REC	1	9/23/2014 12:27:32 PM	15413
VOLATILES BY 8260B/1311						Analyst:	**DJF**
Benzene	ND	0.30		mg/L	1	9/22/2014 6:03:07 PM	15387
2-Butanone	ND	200		mg/L	1	9/22/2014 6:03:07 PM	15387
Carbon Tetrachloride	ND	0.50		mg/L	1	9/22/2014 6:03:07 PM	15387
Chlorobenzene	ND	0.30		mg/L	1	9/22/2014 6:03:07 PM	15387
Chloroform	ND	6.0		mg/L	1	9/22/2014 6:03:07 PM	15387
1,4-Dichlorobenzene	ND	7.5		mg/L	1	9/22/2014 6:03:07 PM	15387
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	9/22/2014 6:03:07 PM	15387
1,1-Dichloroethene	ND	0.30		mg/L	1	9/22/2014 6:03:07 PM	15387
Hexachlorobutadiene	ND	0.50		mg/L	1	9/22/2014 6:03:07 PM	15387
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	9/22/2014 6:03:07 PM	15387
Trichloroethene (TCE)	ND	0.30		mg/L	1	9/22/2014 6:03:07 PM	15387
Vinyl chloride	ND	0.20		mg/L	1	9/22/2014 6:03:07 PM	15387
Surr: 1,2-Dichloroethane-d4	84.9	69.9-130		%REC	1	9/22/2014 6:03:07 PM	15387
Surr: 4-Bromofluorobenzene	87.4	71.2-123		%REC	1	9/22/2014 6:03:07 PM	15387
Surr: Dibromofluoromethane	86.9	73.9-134		%REC	1	9/22/2014 6:03:07 PM	15387
Surr: Toluene-d8	91.5	81.9-122		%REC	1	9/22/2014 6:03:07 PM	15387
EPA METHOD 418.1: TPH						Analyst:	**JME**
Petroleum Hydrocarbons, TR	1000	200		mg/Kg	10	9/19/2014	15373

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

ESC
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12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

September 24, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : September 19, 2014
Description :

Sample ID : 1409871-001B EXCAVATION SOIL UNDERGROUND

Collected By :
Collection Date : 09/15/14 14:00

ESC Sample # : L722652-01

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	09/24/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	09/23/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	09/21/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	09/20/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

~~Reported: 09/24/14 11:00 Printed: 09/24/14 11:00~~
L722652-01 (IGNITABILITY) - Did Not Ignite @ 170 F

ESC
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YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Hall Environmental Analysis Laboratory

4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L722652

September 24, 2014

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Reactive CN (SW846 7.3.3.2)	<.125	mg/kg			WG743997	09/21/14 16:46
Reactive Sulf. (SW846 7.3.4.1)	< 25	mg/kg			WG743996	09/20/14 13:04

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Reactive CN (SW846 7.3.3.2)	mg/kg	0.0	0.0	0.0	20	L722232-01	WG743997
Reactive Sulf. (SW846 7.3.4.1)	mg/kg	0.0	0.0	0.0	20	L722232-01	WG743996
Ignitability	Deg. F	0.00	0.00	0.00	10	L722648-04	WG744379
Corrosivity		0.0	0.0	0.0	10	L722646-01	WG744447
Corrosivity		0.0	0.0	0.0	10	L723025-01	WG744447

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
Reactive CN (SW846 7.3.3.2)	mg/kg	.1	0.0999	99.9	50-150	WG743997
Reactive Sulf. (SW846 7.3.4.1)	mg/kg	100	85.0	85.0	70-130	WG743996
Ignitability	Deg. F	82	83.0	101.	93-107	WG744379
Corrosivity		6.33	6.30	99.5	98.3-101.7	WG744447

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
Reactive CN (SW846 7.3.3.2)	mg/kg	0.0998	0.0999	100.	50-150	0.100	20	WG743997
Reactive Sulf. (SW846 7.3.4.1)	mg/kg	95.0	85.0	95.0	70-130	11.1	20	WG743996
Ignitability	Deg. F	82.0	83.0	100.	93-107	1.21	20	WG744379
Corrosivity		6.30	6.30	100.	98.3-101.7	0.0	10	WG744447

Batch number /Run number / Sample number cross reference

WG743997: R2991469: L722652-01
WG743996: R2991631: L722652-01
WG744379: R2992252: L722652-01
WG744447: R2992418: L722652-01

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409871

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Soil Underground Tank Soil Piles

Sample ID **MB-15373** SampType: **MBLK** TestCode: **EPA Method 418.1: TPH**

Client ID: **PBS** Batch ID: **15373** RunNo: **21288**

Prep Date: **9/18/2014** Analysis Date: **9/19/2014** SeqNo: **621284** 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-15373** SampType: **LCS** TestCode: **EPA Method 418.1: TPH**

Client ID: **LCSS** Batch ID: **15373** RunNo: **21288**

Prep Date: **9/18/2014** Analysis Date: **9/19/2014** SeqNo: **621285** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	96	20	100.0	0	95.8	80	120			

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.
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#: 1409871

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Soil Underground Tank Soil Piles

Sample ID **MB-15363** SampType: **MBLK** TestCode: **EPA Method 8015D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **15363** RunNo: **21269**

Prep Date: **9/18/2014** Analysis Date: **9/18/2014** SeqNo: **620601** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		100	57.9	140			

Sample ID **LCS-15363** SampType: **LCS** TestCode: **EPA Method 8015D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **15363** RunNo: **21269**

Prep Date: **9/18/2014** Analysis Date: **9/18/2014** SeqNo: **620602** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	62	10	50.00	0	125	68.6	130			
Surr: DNOP	5.2		5.000		104	57.9	140			

Sample ID **LCS-15369** SampType: **LCS** TestCode: **EPA Method 8015D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **15369** RunNo: **21309**

Prep Date: **9/18/2014** Analysis Date: **9/19/2014** SeqNo: **622110** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.0		5.000		100	57.9	140			

Sample ID **MB-15369** SampType: **MBLK** TestCode: **EPA Method 8015D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **15369** RunNo: **21309**

Prep Date: **9/18/2014** Analysis Date: **9/19/2014** SeqNo: **622115** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.9		10.00		89.3	57.9	140			

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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409871

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Soil Underground Tank Soil Piles

Sample ID **MB-15378** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **15378** RunNo: **21342**

Prep Date: **9/18/2014** Analysis Date: **9/22/2014** SeqNo: **623292** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	940		1000		94.2	80	120			

Sample ID **LCS-15378** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **15378** RunNo: **21342**

Prep Date: **9/18/2014** Analysis Date: **9/22/2014** SeqNo: **623293** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	65.8	139			
Surr: BFB	1000		1000		101	80	120			

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.
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#: 1409871

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Soil Underground Tank Soil Piles

Sample ID **MB-15378** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **15378** RunNo: **21342**

Prep Date: **9/18/2014** Analysis Date: **9/22/2014** SeqNo: **623326** 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	1.0		1.000		104	80	120			

Sample ID **LCS-15378** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **15378** RunNo: **21342**

Prep Date: **9/18/2014** Analysis Date: **9/22/2014** SeqNo: **623327** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.050	1.000	0	90.6	80	120			
Toluene	0.91	0.050	1.000	0	91.1	80	120			
Ethylbenzene	0.92	0.050	1.000	0	92.4	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.6	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

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.
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#: 1409871

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Soil Underground Tank Soil Piles

Sample ID **mb-15387** SampType: **MBLK** TestCode: **Volatiles by 8260B/1311**

Client ID: **PBS** Batch ID: **15387** RunNo: **21356**

Prep Date: **9/18/2014** Analysis Date: **9/22/2014** SeqNo: **623771** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.30								
2-Butanone	ND	200								
Carbon Tetrachloride	ND	0.50								
Chlorobenzene	ND	0.30								
Chloroform	ND	6.0								
1,4-Dichlorobenzene	ND	7.5								
1,2-Dichloroethane (EDC)	ND	0.50								
1,1-Dichloroethene	ND	0.30								
Hexachlorobutadiene	ND	0.50								
Tetrachloroethene (PCE)	ND	0.70								
Trichloroethene (TCE)	ND	0.30								
Vinyl chloride	ND	0.20								
Surr: 1,2-Dichloroethane-d4	0.18		0.2000		88.7	69.9	130			
Surr: 4-Bromofluorobenzene	0.17		0.2000		85.8	71.2	123			
Surr: Dibromofluoromethane	0.19		0.2000		93.9	73.9	134			
Surr: Toluene-d8	0.18		0.2000		91.0	81.9	122			

Sample ID **lcs-15387** SampType: **LCS** TestCode: **Volatiles by 8260B/1311**

Client ID: **LCSS** Batch ID: **15387** RunNo: **21356**

Prep Date: **9/18/2014** Analysis Date: **9/22/2014** SeqNo: **623772** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.40	0.30	0.4000	0	99.4	51.1	171			
Chlorobenzene	0.42	0.30	0.4000	0	104	36.1	191			
1,1-Dichloroethene	0.44	0.30	0.4000	0	110	49.1	162			
Trichloroethene (TCE)	0.36	0.30	0.4000	0	90.4	41.2	166			
Surr: 1,2-Dichloroethane-d4	0.17		0.2000		86.7	69.9	130			
Surr: 4-Bromofluorobenzene	0.19		0.2000		92.7	71.2	123			
Surr: Dibromofluoromethane	0.17		0.2000		87.0	73.9	134			
Surr: Toluene-d8	0.18		0.2000		90.7	81.9	122			

Sample ID **1409871-001ams** SampType: **MS** TestCode: **Volatiles by 8260B/1311**

Client ID: **Excavation Soil Und** Batch ID: **15387** RunNo: **21356**

Prep Date: **9/18/2014** Analysis Date: **9/22/2014** SeqNo: **623774** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.40	0.30	0.3998	0	98.9	51.1	171			
Chlorobenzene	0.41	0.30	0.3998	0	102	36.1	191			
1,1-Dichloroethene	0.45	0.30	0.3998	0	113	49.1	162			
Trichloroethene (TCE)	0.42	0.30	0.3998	0	104	41.2	166			

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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: 1409871

Hall Environmental Analysis Laboratory, Inc.

24-Sep-14

Client: Western Refining Southwest, Gallup
Project: Excavation Soil Underground Tank Soil Piles

Sample ID **1409871-001ams** SampType: **MS** TestCode: **Volatiles by 8260B/1311**
Client ID: **Excavation Soil Und** Batch ID: **15387** RunNo: **21356**
Prep Date: **9/18/2014** Analysis Date: **9/22/2014** SeqNo: **623774** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.18		0.1999		91.6	69.9	130			
Surr: 4-Bromofluorobenzene	0.17		0.1999		86.1	71.2	123			
Surr: Dibromofluoromethane	0.19		0.1999		95.7	73.9	134			
Surr: Toluene-d8	0.18		0.1999		90.0	81.9	122			

Sample ID **1409871-001amsd** SampType: **MSD** TestCode: **Volatiles by 8260B/1311**
Client ID: **Excavation Soil Und** Batch ID: **15387** RunNo: **21356**
Prep Date: **9/18/2014** Analysis Date: **9/22/2014** SeqNo: **623775** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.40	0.30	0.3998	0	99.2	51.1	171	0.323	20	
Chlorobenzene	0.40	0.30	0.3998	0	99.1	36.1	191	3.37	20	
1,1-Dichloroethene	0.43	0.30	0.3998	0	107	49.1	162	4.75	20	
Trichloroethene (TCE)	0.40	0.30	0.3998	0	99.3	41.2	166	4.49	20	
Surr: 1,2-Dichloroethane-d4	0.18		0.1999		90.2	69.9	130	0	0	
Surr: 4-Bromofluorobenzene	0.16		0.1999		81.7	71.2	123	0	0	
Surr: Dibromofluoromethane	0.19		0.1999		92.9	73.9	134	0	0	
Surr: Toluene-d8	0.17		0.1999		84.9	81.9	122	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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409871

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Soil Underground Tank Soil Piles

Sample ID **mb-15413** SampType: **MBLK** TestCode: **EPA Method 8270C TCLP**

Client ID: **PBS** Batch ID: **15413** RunNo: **21387**

Prep Date: **9/22/2014** Analysis Date: **9/23/2014** SeqNo: **624719** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
Phenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Surr: 2-Fluorophenol	0.16		0.2000		78.8	25	105			
Surr: Phenol-d5	0.14		0.2000		68.7	22.3	70.3			
Surr: 2,4,6-Tribromophenol	0.16		0.2000		79.7	30.4	134			
Surr: Nitrobenzene-d5	0.092		0.1000		91.6	54.8	128			
Surr: 2-Fluorobiphenyl	0.086		0.1000		85.6	53.3	122			
Surr: 4-Terphenyl-d14	0.090		0.1000		90.1	51.8	133			

Sample ID **lcs-15413** SampType: **LCS** TestCode: **EPA Method 8270C TCLP**

Client ID: **LCSS** Batch ID: **15413** RunNo: **21387**

Prep Date: **9/22/2014** Analysis Date: **9/23/2014** SeqNo: **624720** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.076	0.010	0.1000	0	75.9	52.2	95.7			
3+4-Methylphenol	0.17	0.010	0.2000	0	85.5	52.4	142			
2,4-Dinitrotoluene	0.067	0.010	0.1000	0	67.1	43.4	110			
Hexachlorobenzene	0.078	0.010	0.1000	0	78.1	43.6	88.4			
Hexachlorobutadiene	0.064	0.010	0.1000	0	63.6	38.6	88.4			
Hexachloroethane	0.074	0.010	0.1000	0	73.7	45.7	83.6			
Nitrobenzene	0.077	0.010	0.1000	0	77.1	51.9	112			
Pentachlorophenol	0.033	0.010	0.1000	0	33.1	15.2	81.5			
Pyridine	0.062	0.010	0.1000	0	61.9	11.2	95.1			
2,4,5-Trichlorophenol	0.067	0.010	0.1000	0	66.8	46.9	110			
2,4,6-Trichlorophenol	0.064	0.010	0.1000	0	64.3	36.1	111			
Cresols, Total	0.25	0.010	0.3000	0	82.3	30	136			
Surr: 2-Fluorophenol	0.14		0.2000		71.6	25	105			
Surr: Phenol-d5	0.14		0.2000		70.7	22.3	70.3			S

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.
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#: 1409871

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Soil Underground Tank Soil Piles

Sample ID **lcs-15413** SampType: **LCS** TestCode: **EPA Method 8270C TCLP**

Client ID: **LCSS** Batch ID: **15413** RunNo: **21387**

Prep Date: **9/22/2014** Analysis Date: **9/23/2014** SeqNo: **624720** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	0.11		0.2000		56.0	30.4	134			
Surr: Nitrobenzene-d5	0.077		0.1000		76.6	54.8	128			
Surr: 2-Fluorobiphenyl	0.074		0.1000		74.0	53.3	122			
Surr: 4-Terphenyl-d14	0.076		0.1000		75.5	51.8	133			

Sample ID **1409871-001ams** SampType: **MS** TestCode: **EPA Method 8270C TCLP**

Client ID: **Excavation Soil Und** Batch ID: **15413** RunNo: **21387**

Prep Date: **9/22/2014** Analysis Date: **9/23/2014** SeqNo: **624733** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.062	0.010	0.1000	0	61.8	32.1	120			
3+4-Methylphenol	0.13	0.010	0.2000	0	64.1	10.9	204			
2,4-Dinitrotoluene	0.060	0.010	0.1000	0	59.9	41.9	116			
Hexachlorobenzene	0.066	0.010	0.1000	0	66.1	37.7	99.4			
Hexachlorobutadiene	0.054	0.010	0.1000	0	53.7	30.6	107			
Hexachloroethane	0.062	0.010	0.1000	0	61.5	27.4	121			
Nitrobenzene	0.064	0.010	0.1000	0	63.7	28.6	134			
Pentachlorophenol	0.025	0.010	0.1000	0	24.8	7.71	111			
Pyridine	0.056	0.010	0.1000	0	55.7	8.54	92.4			
2,4,5-Trichlorophenol	0.037	0.010	0.1000	0	37.0	25.3	146			
2,4,6-Trichlorophenol	0.037	0.010	0.1000	0	37.5	21.5	145			
Cresols, Total	0.19	0.010	0.3000	0	63.3	10.6	179			
Surr: 2-Fluorophenol	0.078		0.2000		39.2	25	105			
Surr: Phenol-d5	0.083		0.2000		41.3	22.3	70.3			
Surr: 2,4,6-Tribromophenol	0.070		0.2000		34.8	30.4	134			
Surr: Nitrobenzene-d5	0.065		0.1000		65.5	54.8	128			
Surr: 2-Fluorobiphenyl	0.062		0.1000		61.7	53.3	122			
Surr: 4-Terphenyl-d14	0.066		0.1000		65.9	51.8	133			

Sample ID **1409871-001amsd** SampType: **MSD** TestCode: **EPA Method 8270C TCLP**

Client ID: **Excavation Soil Und** Batch ID: **15413** RunNo: **21387**

Prep Date: **9/22/2014** Analysis Date: **9/23/2014** SeqNo: **624734** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.058	0.010	0.1000	0	57.8	32.1	120	6.56	20	
3+4-Methylphenol	0.13	0.010	0.2000	0	63.8	10.9	204	0.547	20	
2,4-Dinitrotoluene	0.057	0.010	0.1000	0	57.2	41.9	116	4.61	23.2	
Hexachlorobenzene	0.064	0.010	0.1000	0	64.4	37.7	99.4	2.51	20	
Hexachlorobutadiene	0.046	0.010	0.1000	0	46.5	30.6	107	14.3	20	
Hexachloroethane	0.057	0.010	0.1000	0	57.4	27.4	121	7.00	31.3	

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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409871

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Soil Underground Tank Soil Piles

Sample ID **1409871-001amsd** SampType: **MSD** TestCode: **EPA Method 8270C TCLP**

Client ID: **Excavation Soil Und** Batch ID: **15413** RunNo: **21387**

Prep Date: **9/22/2014** Analysis Date: **9/23/2014** SeqNo: **624734** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrobenzene	0.057	0.010	0.1000	0	56.8	28.6	134	11.5	26.6	
Pentachlorophenol	0.031	0.010	0.1000	0	31.3	7.71	111	23.3	27.9	
Pyridine	0.051	0.010	0.1000	0	50.5	8.54	92.4	9.75	47.4	
2,4,5-Trichlorophenol	0.058	0.010	0.1000	0	57.8	25.3	146	44.0	36.9	R
2,4,6-Trichlorophenol	0.051	0.010	0.1000	0	50.7	21.5	145	30.1	37.2	
Cresols, Total	0.19	0.010	0.3000	0	61.8	10.6	179	2.46	27.4	
Surr: 2-Fluorophenol	0.11		0.2000		54.0	25	105	0	0	
Surr: Phenol-d5	0.097		0.2000		48.3	22.3	70.3	0	0	
Surr: 2,4,6-Tribromophenol	0.10		0.2000		52.3	30.4	134	0	0	
Surr: Nitrobenzene-d5	0.059		0.1000		58.6	54.8	128	0	0	
Surr: 2-Fluorobiphenyl	0.054		0.1000		54.4	53.3	122	0	0	
Surr: 4-Terphenyl-d14	0.068		0.1000		68.3	51.8	133	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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

WO#: 1409871

Hall Environmental Analysis Laboratory, Inc.

24-Sep-14

Client: Western Refining Southwest, Gallup
Project: Excavation Soil Underground Tank Soil Piles

Sample ID **MB-15428** SampType: **MBLK** TestCode: **MERCURY, TCLP**
Client ID: **PBW** Batch ID: **15428** RunNo: **21367**
Prep Date: **9/22/2014** Analysis Date: **9/23/2014** SeqNo: **623963** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Sample ID **LCS-15428** SampType: **LCS** TestCode: **MERCURY, TCLP**
Client ID: **LCSW** Batch ID: **15428** RunNo: **21367**
Prep Date: **9/22/2014** Analysis Date: **9/23/2014** SeqNo: **623964** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	98.4	80	120			

Sample ID **1409871-001AMS** SampType: **MS** TestCode: **MERCURY, TCLP**
Client ID: **Excavation Soil Und** Batch ID: **15428** RunNo: **21367**
Prep Date: **9/22/2014** Analysis Date: **9/23/2014** SeqNo: **623966** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	96.9	75	125			

Sample ID **1409871-001AMSD** SampType: **MSD** TestCode: **MERCURY, TCLP**
Client ID: **Excavation Soil Und** Batch ID: **15428** RunNo: **21367**
Prep Date: **9/22/2014** Analysis Date: **9/23/2014** SeqNo: **623967** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	99.4	75	125	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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409871

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Soil Underground Tank Soil Piles

Sample ID MB-15406 SampType: MBLK TestCode: EPA Method 6010B: TCLP Metals

Client ID: PBW Batch ID: 15406 RunNo: 21324

Prep Date: 9/19/2014 Analysis Date: 9/20/2014 SeqNo: 622314 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID LCS-15406 SampType: LCS TestCode: EPA Method 6010B: TCLP Metals

Client ID: LCSW Batch ID: 15406 RunNo: 21324

Prep Date: 9/19/2014 Analysis Date: 9/20/2014 SeqNo: 622315 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	109	80	120			
Barium	ND	100	0.5000	0	98.8	80	120			
Cadmium	ND	1.0	0.5000	0	103	80	120			
Chromium	ND	5.0	0.5000	0	97.5	80	120			
Lead	ND	5.0	0.5000	0	96.3	80	120			
Selenium	ND	1.0	0.5000	0	111	80	120			
Silver	ND	5.0	0.1000	0	104	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
- S Spike Recovery 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.
- RL Reporting Detection Limit

ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE
Albuquerque, NM 87109
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: 1409871 RcptNo: 1

Received by/date: MG 09/17/14

Logged By: Michelle Garcia 9/17/2014 4:32:00 PM Michelle Garcia

Completed By: Michelle Garcia 9/17/2014 6:57:06 PM Michelle Garcia

Reviewed By: 09/18/14

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? Courier

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:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Client: Western - Refining

Mailing Address: 92 GIANT CROSSING ROAD
Gallup NM 87301

Phone #: 505 722 3833
email or Fax#: 505 863 0930

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

☐ Standard ☒ Rush

Project Name:

Excavation Soil Underground Tank Soil Piles

Project #:

North of Bullet Tanks

Project Manager:
Beck Larsen

Sampler: A.Dorsey / J. TSO / K.Sanchez
On Ice: ☑ Yes ☐ No
Sample Temperature: 1.0

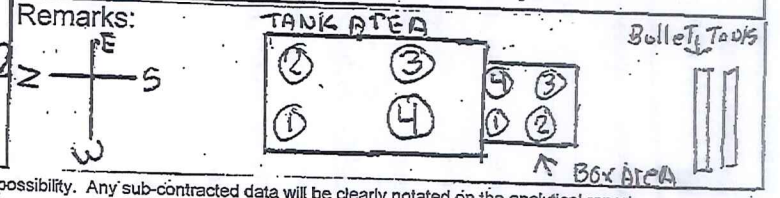
HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1409871	BTEX (8021)B	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO/DRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) TCLP	8270 (Semi-VOA) TCLP	RCI	TCLP Metals			Air Bubbles (Y or N)
9/15/2014	14:00	Soil	Excavation Soil Underground Tank	9 oz - 9	N/A	-001	X		X	X						X	X	X	X			
			(Tank North of Bullet Tanks)																			
			(Soil Pile Composite)																			

Remarks:

Remarks:



Date:	Time:	Relinquished by:	Received by:	Date	Time
09-17-14	14:30	Alvin Dorsey	Michelle Garcia	09/17/14	16:32
Date: 9/17/14	Time: 1632	Relinquished by:	Received by:	Date	Time

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Appendix A-3

Hall Environmental Analysis Laboratory, Inc. –

September 24, 2014

Analytical Report No. 1409872

9/16/14

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

September 24, 2014

Beck Larsen
Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0258
FAX (505) 722-0210

RE: Excavation Underground Tank Area

OrderNo.: 1409872

Dear Beck Larsen:

Hall Environmental Analysis Laboratory received 4 sample(s) on 9/17/2014 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 qualifers 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1409872**
Date Reported: **9/24/2014**

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Tank Area
Lab ID: 1409872-001 **Matrix:** SOIL

Client Sample ID: Tank Area Location #1
Collection Date: 9/16/2014 11:40:00 AM
Received Date: 9/17/2014 4:32:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	330	9.9		mg/Kg	1	9/19/2014 7:05:44 PM	15363
Surr: DNOP	120	57.9-140		%REC	1	9/19/2014 7:05:44 PM	15363
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/22/2014 12:50:48 PM	15378
Surr: BFB	95.4	80-120		%REC	1	9/22/2014 12:50:48 PM	15378
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	9/22/2014 12:50:48 PM	15378
Toluene	ND	0.050		mg/Kg	1	9/22/2014 12:50:48 PM	15378
Ethylbenzene	ND	0.050		mg/Kg	1	9/22/2014 12:50:48 PM	15378
Xylenes, Total	ND	0.10		mg/Kg	1	9/22/2014 12:50:48 PM	15378
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	9/22/2014 12:50:48 PM	15378
MERCURY, TCLP						Analyst: **JLF**	
Mercury	ND	0.020		mg/L	1	9/23/2014 10:59:02 AM	15428
EPA METHOD 6010B: TCLP METALS						Analyst: **ELS**	
Arsenic	ND	5.0		mg/L	1	9/20/2014 10:12:11 AM	15406
Barium	ND	100		mg/L	1	9/20/2014 10:12:11 AM	15406
Cadmium	ND	1.0		mg/L	1	9/20/2014 10:12:11 AM	15406
Chromium	ND	5.0		mg/L	1	9/20/2014 10:12:11 AM	15406
Lead	ND	5.0		mg/L	1	9/20/2014 10:12:11 AM	15406
Selenium	ND	1.0		mg/L	1	9/20/2014 10:12:11 AM	15406
Silver	ND	5.0		mg/L	1	9/20/2014 10:12:11 AM	15406
EPA METHOD 8270C TCLP						Analyst: **DAM**	
2-Methylphenol	ND	200		mg/L	1	9/23/2014 1:55:09 PM	15413
3+4-Methylphenol	ND	200		mg/L	1	9/23/2014 1:55:09 PM	15413
Phenol	ND	200		mg/L	1	9/23/2014 1:55:09 PM	15413
2,4-Dinitrotoluene	ND	0.13		mg/L	1	9/23/2014 1:55:09 PM	15413
Hexachlorobenzene	ND	0.13		mg/L	1	9/23/2014 1:55:09 PM	15413
Hexachlorobutadiene	ND	0.50		mg/L	1	9/23/2014 1:55:09 PM	15413
Hexachloroethane	ND	3.0		mg/L	1	9/23/2014 1:55:09 PM	15413
Nitrobenzene	ND	2.0		mg/L	1	9/23/2014 1:55:09 PM	15413
Pentachlorophenol	ND	100		mg/L	1	9/23/2014 1:55:09 PM	15413
Pyridine	ND	5.0		mg/L	1	9/23/2014 1:55:09 PM	15413
2,4,5-Trichlorophenol	ND	400		mg/L	1	9/23/2014 1:55:09 PM	15413
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	9/23/2014 1:55:09 PM	15413
Cresols, Total	ND	200		mg/L	1	9/23/2014 1:55:09 PM	15413
Surr: 2-Fluorophenol	52.0	25-105		%REC	1	9/23/2014 1:55:09 PM	15413
Surr: Phenol-d5	56.6	22.3-70.3		%REC	1	9/23/2014 1:55:09 PM	15413

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Tank Area
Lab ID: 1409872-001 **Matrix:** SOIL

Client Sample ID: Tank Area Location #1
Collection Date: 9/16/2014 11:40:00 AM
Received Date: 9/17/2014 4:32:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst:	DAM
Surr: 2,4,6-Tribromophenol	44.5	30.4-134		%REC	1	9/23/2014 1:55:09 PM	15413
Surr: Nitrobenzene-d5	85.9	54.8-128		%REC	1	9/23/2014 1:55:09 PM	15413
Surr: 2-Fluorobiphenyl	79.9	53.3-122		%REC	1	9/23/2014 1:55:09 PM	15413
Surr: 4-Terphenyl-d14	81.2	51.8-133		%REC	1	9/23/2014 1:55:09 PM	15413
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst:	RAA
Benzene	ND	0.50		ppm	10	9/21/2014 1:28:54 AM	15378
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	9/21/2014 1:28:54 AM	15378
2-Butanone	ND	200		ppm	10	9/21/2014 1:28:54 AM	15378
Carbon tetrachloride	ND	0.50		ppm	10	9/21/2014 1:28:54 AM	15378
Chlorobenzene	ND	100		ppm	10	9/21/2014 1:28:54 AM	15378
Chloroform	ND	6.0		ppm	10	9/21/2014 1:28:54 AM	15378
1,4-Dichlorobenzene	ND	7.5		ppm	10	9/21/2014 1:28:54 AM	15378
1,1-Dichloroethene	ND	0.70		ppm	10	9/21/2014 1:28:54 AM	15378
Tetrachloroethene (PCE)	ND	0.70		ppm	10	9/21/2014 1:28:54 AM	15378
Trichloroethene (TCE)	ND	0.50		ppm	10	9/21/2014 1:28:54 AM	15378
Vinyl chloride	ND	0.20		ppm	10	9/21/2014 1:28:54 AM	15378
mp-Xylenes	ND	0.50		mg/Kg	10	9/21/2014 1:28:54 AM	15378
o-Xylene	ND	0.50		mg/Kg	10	9/21/2014 1:28:54 AM	15378
Surr: 1,2-Dichloroethane-d4	85.5	70-130		%REC	10	9/21/2014 1:28:54 AM	15378
Surr: 4-Bromofluorobenzene	94.6	70-130		%REC	10	9/21/2014 1:28:54 AM	15378
Surr: Dibromofluoromethane	90.0	70-130		%REC	10	9/21/2014 1:28:54 AM	15378
Surr: Toluene-d8	89.8	70-130		%REC	10	9/21/2014 1:28:54 AM	15378
EPA METHOD 418.1: TPH						Analyst:	JME
Petroleum Hydrocarbons, TR	320	20		mg/Kg	1	9/19/2014	15373

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Tank Area
Lab ID: 1409872-002 **Matrix:** SOIL

Client Sample ID: Tank Area Location #2
Collection Date: 9/16/2014 12:00:00 PM
Received Date: 9/17/2014 4:32:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**BCN**
Diesel Range Organics (DRO)	39	10		mg/Kg	1	9/19/2014 7:36:01 PM	15363
Surr: DNOP	112	57.9-140		%REC	1	9/19/2014 7:36:01 PM	15363
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	170	5.0		mg/Kg	1	9/22/2014 1:19:25 PM	15378
Surr: BFB	594	80-120	S	%REC	1	9/22/2014 1:19:25 PM	15378
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	0.19	0.050		mg/Kg	1	9/22/2014 1:19:25 PM	15378
Toluene	0.39	0.050		mg/Kg	1	9/22/2014 1:19:25 PM	15378
Ethylbenzene	0.58	0.050		mg/Kg	1	9/22/2014 1:19:25 PM	15378
Xylenes, Total	2.1	0.10		mg/Kg	1	9/22/2014 1:19:25 PM	15378
Surr: 4-Bromofluorobenzene	136	80-120	S	%REC	1	9/22/2014 1:19:25 PM	15378
MERCURY, TCLP						Analyst:	**JLF**
Mercury	ND	0.020		mg/L	1	9/23/2014 11:00:50 AM	15428
EPA METHOD 6010B: TCLP METALS						Analyst:	**ELS**
Arsenic	ND	5.0		mg/L	1	9/20/2014 10:17:11 AM	15406
Barium	ND	100		mg/L	1	9/20/2014 10:17:11 AM	15406
Cadmium	ND	1.0		mg/L	1	9/20/2014 10:17:11 AM	15406
Chromium	ND	5.0		mg/L	1	9/20/2014 10:17:11 AM	15406
Lead	ND	5.0		mg/L	1	9/20/2014 10:17:11 AM	15406
Selenium	ND	1.0		mg/L	1	9/20/2014 10:17:11 AM	15406
Silver	ND	5.0		mg/L	1	9/20/2014 10:17:11 AM	15406
EPA METHOD 8270C TCLP						Analyst:	**DAM**
2-Methylphenol	ND	200		mg/L	1	9/23/2014 2:24:17 PM	15413
3+4-Methylphenol	ND	200		mg/L	1	9/23/2014 2:24:17 PM	15413
Phenol	ND	200		mg/L	1	9/23/2014 2:24:17 PM	15413
2,4-Dinitrotoluene	ND	0.13		mg/L	1	9/23/2014 2:24:17 PM	15413
Hexachlorobenzene	ND	0.13		mg/L	1	9/23/2014 2:24:17 PM	15413
Hexachlorobutadiene	ND	0.50		mg/L	1	9/23/2014 2:24:17 PM	15413
Hexachloroethane	ND	3.0		mg/L	1	9/23/2014 2:24:17 PM	15413
Nitrobenzene	ND	2.0		mg/L	1	9/23/2014 2:24:17 PM	15413
Pentachlorophenol	ND	100		mg/L	1	9/23/2014 2:24:17 PM	15413
Pyridine	ND	5.0		mg/L	1	9/23/2014 2:24:17 PM	15413
2,4,5-Trichlorophenol	ND	400		mg/L	1	9/23/2014 2:24:17 PM	15413
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	9/23/2014 2:24:17 PM	15413
Cresols, Total	ND	200		mg/L	1	9/23/2014 2:24:17 PM	15413
Surr: 2-Fluorophenol	53.7	25-105		%REC	1	9/23/2014 2:24:17 PM	15413
Surr: Phenol-d5	60.7	22.3-70.3		%REC	1	9/23/2014 2:24:17 PM	15413

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Tank Area
Lab ID: 1409872-002 **Matrix:** SOIL

Client Sample ID: Tank Area Location #2
Collection Date: 9/16/2014 12:00:00 PM
Received Date: 9/17/2014 4:32:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst:	DAM
Surr: 2,4,6-Tribromophenol	40.7	30.4-134		%REC	1	9/23/2014 2:24:17 PM	15413
Surr: Nitrobenzene-d5	95.6	54.8-128		%REC	1	9/23/2014 2:24:17 PM	15413
Surr: 2-Fluorobiphenyl	87.3	53.3-122		%REC	1	9/23/2014 2:24:17 PM	15413
Surr: 4-Terphenyl-d14	85.8	51.8-133		%REC	1	9/23/2014 2:24:17 PM	15413
VOLATILES BY 8260B/1311						Analyst:	DJF
Benzene	ND	0.30		mg/L	1	9/22/2014 7:26:48 PM	15387
2-Butanone	ND	200		mg/L	1	9/22/2014 7:26:48 PM	15387
Carbon Tetrachloride	ND	0.50		mg/L	1	9/22/2014 7:26:48 PM	15387
Chlorobenzene	ND	0.30		mg/L	1	9/22/2014 7:26:48 PM	15387
Chloroform	ND	6.0		mg/L	1	9/22/2014 7:26:48 PM	15387
1,4-Dichlorobenzene	ND	7.5		mg/L	1	9/22/2014 7:26:48 PM	15387
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	9/22/2014 7:26:48 PM	15387
1,1-Dichloroethene	ND	0.30		mg/L	1	9/22/2014 7:26:48 PM	15387
Hexachlorobutadiene	ND	0.50		mg/L	1	9/22/2014 7:26:48 PM	15387
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	9/22/2014 7:26:48 PM	15387
Trichloroethene (TCE)	ND	0.30		mg/L	1	9/22/2014 7:26:48 PM	15387
Vinyl chloride	ND	0.20		mg/L	1	9/22/2014 7:26:48 PM	15387
Surr: 1,2-Dichloroethane-d4	85.2	69.9-130		%REC	1	9/22/2014 7:26:48 PM	15387
Surr: 4-Bromofluorobenzene	88.0	71.2-123		%REC	1	9/22/2014 7:26:48 PM	15387
Surr: Dibromofluoromethane	90.3	73.9-134		%REC	1	9/22/2014 7:26:48 PM	15387
Surr: Toluene-d8	89.5	81.9-122		%REC	1	9/22/2014 7:26:48 PM	15387
EPA METHOD 418.1: TPH						Analyst:	JME
Petroleum Hydrocarbons, TR	24	20		mg/Kg	1	9/19/2014	15373

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Tank Area
Lab ID: 1409872-003 **Matrix:** SOIL

Client Sample ID: Tank Area Location #3
Collection Date: 9/16/2014 12:15:00 PM
Received Date: 9/17/2014 4:32:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**BCN**
Diesel Range Organics (DRO)	160	10		mg/Kg	1	9/19/2014 8:06:16 PM	15363
Surr: DNOP	112	57.9-140		%REC	1	9/19/2014 8:06:16 PM	15363
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	92	5.0		mg/Kg	1	9/22/2014 1:48:05 PM	15378
Surr: BFB	392	80-120	S	%REC	1	9/22/2014 1:48:05 PM	15378
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	0.13	0.050		mg/Kg	1	9/22/2014 1:48:05 PM	15378
Toluene	0.12	0.050		mg/Kg	1	9/22/2014 1:48:05 PM	15378
Ethylbenzene	0.19	0.050		mg/Kg	1	9/22/2014 1:48:05 PM	15378
Xylenes, Total	0.77	0.10		mg/Kg	1	9/22/2014 1:48:05 PM	15378
Surr: 4-Bromofluorobenzene	128	80-120	S	%REC	1	9/22/2014 1:48:05 PM	15378
MERCURY, TCLP						Analyst:	**JLF**
Mercury	ND	0.020		mg/L	1	9/23/2014 11:02:38 AM	15428
EPA METHOD 6010B: TCLP METALS						Analyst:	**ELS**
Arsenic	ND	5.0		mg/L	1	9/20/2014 10:18:27 AM	15406
Barium	ND	100		mg/L	1	9/20/2014 10:18:27 AM	15406
Cadmium	ND	1.0		mg/L	1	9/20/2014 10:18:27 AM	15406
Chromium	ND	5.0		mg/L	1	9/20/2014 10:18:27 AM	15406
Lead	ND	5.0		mg/L	1	9/20/2014 10:18:27 AM	15406
Selenium	ND	1.0		mg/L	1	9/20/2014 10:18:27 AM	15406
Silver	ND	5.0		mg/L	1	9/20/2014 10:18:27 AM	15406
EPA METHOD 8270C TCLP						Analyst:	**DAM**
2-Methylphenol	ND	200		mg/L	1	9/23/2014 2:53:26 PM	15413
3+4-Methylphenol	ND	200		mg/L	1	9/23/2014 2:53:26 PM	15413
Phenol	ND	200		mg/L	1	9/23/2014 2:53:26 PM	15413
2,4-Dinitrotoluene	ND	0.13		mg/L	1	9/23/2014 2:53:26 PM	15413
Hexachlorobenzene	ND	0.13		mg/L	1	9/23/2014 2:53:26 PM	15413
Hexachlorobutadiene	ND	0.50		mg/L	1	9/23/2014 2:53:26 PM	15413
Hexachloroethane	ND	3.0		mg/L	1	9/23/2014 2:53:26 PM	15413
Nitrobenzene	ND	2.0		mg/L	1	9/23/2014 2:53:26 PM	15413
Pentachlorophenol	ND	100		mg/L	1	9/23/2014 2:53:26 PM	15413
Pyridine	ND	5.0		mg/L	1	9/23/2014 2:53:26 PM	15413
2,4,5-Trichlorophenol	ND	400		mg/L	1	9/23/2014 2:53:26 PM	15413
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	9/23/2014 2:53:26 PM	15413
Cresols, Total	ND	200		mg/L	1	9/23/2014 2:53:26 PM	15413
Surr: 2-Fluorophenol	76.8	25-105		%REC	1	9/23/2014 2:53:26 PM	15413
Surr: Phenol-d5	65.0	22.3-70.3		%REC	1	9/23/2014 2:53:26 PM	15413

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Tank Area
Lab ID: 1409872-003 **Matrix:** SOIL

Client Sample ID: Tank Area Location #3
Collection Date: 9/16/2014 12:15:00 PM
Received Date: 9/17/2014 4:32:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	81.6	30.4-134		%REC	1	9/23/2014 2:53:26 PM	15413
Surr: Nitrobenzene-d5	95.4	54.8-128		%REC	1	9/23/2014 2:53:26 PM	15413
Surr: 2-Fluorobiphenyl	91.5	53.3-122		%REC	1	9/23/2014 2:53:26 PM	15413
Surr: 4-Terphenyl-d14	87.7	51.8-133		%REC	1	9/23/2014 2:53:26 PM	15413
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **cadg**	
Benzene	ND	0.50		ppm	10	9/22/2014 11:00:29 AM	15378
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	9/22/2014 11:00:29 AM	15378
2-Butanone	ND	200		ppm	10	9/22/2014 11:00:29 AM	15378
Carbon tetrachloride	ND	0.50		ppm	10	9/22/2014 11:00:29 AM	15378
Chlorobenzene	ND	100		ppm	10	9/22/2014 11:00:29 AM	15378
Chloroform	ND	6.0		ppm	10	9/22/2014 11:00:29 AM	15378
1,4-Dichlorobenzene	ND	7.5		ppm	10	9/22/2014 11:00:29 AM	15378
1,1-Dichloroethene	ND	0.70		ppm	10	9/22/2014 11:00:29 AM	15378
Tetrachloroethene (PCE)	ND	0.70		ppm	10	9/22/2014 11:00:29 AM	15378
Trichloroethene (TCE)	ND	0.50		ppm	10	9/22/2014 11:00:29 AM	15378
Vinyl chloride	ND	0.20		ppm	10	9/22/2014 11:00:29 AM	15378
Surr: 1,2-Dichloroethane-d4	87.8	70-130		%REC	10	9/22/2014 11:00:29 AM	15378
Surr: 4-Bromofluorobenzene	87.5	70-130		%REC	10	9/22/2014 11:00:29 AM	15378
Surr: Dibromofluoromethane	89.2	70-130		%REC	10	9/22/2014 11:00:29 AM	15378
Surr: Toluene-d8	89.3	70-130		%REC	10	9/22/2014 11:00:29 AM	15378
EPA METHOD 418.1: TPH						Analyst: **JME**	
Petroleum Hydrocarbons, TR	96	20		mg/Kg	1	9/19/2014	15373

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Tank Area
Lab ID: 1409872-004 **Matrix:** SOIL

Client Sample ID: Tank Area Location #4
Collection Date: 9/16/2014 12:30:00 PM
Received Date: 9/17/2014 4:32:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**BCN**
Diesel Range Organics (DRO)	310	9.8		mg/Kg	1	9/19/2014 8:36:16 PM	15363
Surr: DNOP	113	57.9-140		%REC	1	9/19/2014 8:36:16 PM	15363
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	190	5.0		mg/Kg	1	9/22/2014 2:16:48 PM	15378
Surr: BFB	494	80-120	S	%REC	1	9/22/2014 2:16:48 PM	15378
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	0.25	0.050		mg/Kg	1	9/22/2014 2:16:48 PM	15378
Toluene	0.19	0.050		mg/Kg	1	9/22/2014 2:16:48 PM	15378
Ethylbenzene	0.23	0.050		mg/Kg	1	9/22/2014 2:16:48 PM	15378
Xylenes, Total	1.7	0.10		mg/Kg	1	9/22/2014 2:16:48 PM	15378
Surr: 4-Bromofluorobenzene	126	80-120	S	%REC	1	9/22/2014 2:16:48 PM	15378
MERCURY, TCLP						Analyst:	**JLF**
Mercury	ND	0.020		mg/L	1	9/23/2014 11:04:27 AM	15428
EPA METHOD 6010B: TCLP METALS						Analyst:	**ELS**
Arsenic	ND	5.0		mg/L	1	9/20/2014 10:19:41 AM	15406
Barium	ND	100		mg/L	1	9/20/2014 10:19:41 AM	15406
Cadmium	ND	1.0		mg/L	1	9/20/2014 10:19:41 AM	15406
Chromium	ND	5.0		mg/L	1	9/20/2014 10:19:41 AM	15406
Lead	ND	5.0		mg/L	1	9/20/2014 10:19:41 AM	15406
Selenium	ND	1.0		mg/L	1	9/20/2014 10:19:41 AM	15406
Silver	ND	5.0		mg/L	1	9/20/2014 10:19:41 AM	15406
EPA METHOD 8270C TCLP						Analyst:	**DAM**
2-Methylphenol	ND	200		mg/L	1	9/23/2014 3:22:34 PM	15413
3+4-Methylphenol	ND	200		mg/L	1	9/23/2014 3:22:34 PM	15413
Phenol	ND	200		mg/L	1	9/23/2014 3:22:34 PM	15413
2,4-Dinitrotoluene	ND	0.13		mg/L	1	9/23/2014 3:22:34 PM	15413
Hexachlorobenzene	ND	0.13		mg/L	1	9/23/2014 3:22:34 PM	15413
Hexachlorobutadiene	ND	0.50		mg/L	1	9/23/2014 3:22:34 PM	15413
Hexachloroethane	ND	3.0		mg/L	1	9/23/2014 3:22:34 PM	15413
Nitrobenzene	ND	2.0		mg/L	1	9/23/2014 3:22:34 PM	15413
Pentachlorophenol	ND	100		mg/L	1	9/23/2014 3:22:34 PM	15413
Pyridine	ND	5.0		mg/L	1	9/23/2014 3:22:34 PM	15413
2,4,5-Trichlorophenol	ND	400		mg/L	1	9/23/2014 3:22:34 PM	15413
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	9/23/2014 3:22:34 PM	15413
Cresols, Total	ND	200		mg/L	1	9/23/2014 3:22:34 PM	15413
Surr: 2-Fluorophenol	68.0	25-105		%REC	1	9/23/2014 3:22:34 PM	15413
Surr: Phenol-d5	72.0	22.3-70.3	S	%REC	1	9/23/2014 3:22:34 PM	15413

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Tank Area
Lab ID: 1409872-004 **Matrix:** SOIL

Client Sample ID: Tank Area Location #4
Collection Date: 9/16/2014 12:30:00 PM
Received Date: 9/17/2014 4:32:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	53.4	30.4-134		%REC	1	9/23/2014 3:22:34 PM	15413
Surr: Nitrobenzene-d5	102	54.8-128		%REC	1	9/23/2014 3:22:34 PM	15413
Surr: 2-Fluorobiphenyl	92.9	53.3-122		%REC	1	9/23/2014 3:22:34 PM	15413
Surr: 4-Terphenyl-d14	99.8	51.8-133		%REC	1	9/23/2014 3:22:34 PM	15413
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **cadg**	
Benzene	ND	0.50		ppm	10	9/22/2014 11:28:31 AM	15378
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	9/22/2014 11:28:31 AM	15378
2-Butanone	ND	200		ppm	10	9/22/2014 11:28:31 AM	15378
Carbon tetrachloride	ND	0.50		ppm	10	9/22/2014 11:28:31 AM	15378
Chlorobenzene	ND	100		ppm	10	9/22/2014 11:28:31 AM	15378
Chloroform	ND	6.0		ppm	10	9/22/2014 11:28:31 AM	15378
1,4-Dichlorobenzene	ND	7.5		ppm	10	9/22/2014 11:28:31 AM	15378
1,1-Dichloroethene	ND	0.70		ppm	10	9/22/2014 11:28:31 AM	15378
Tetrachloroethene (PCE)	ND	0.70		ppm	10	9/22/2014 11:28:31 AM	15378
Trichloroethene (TCE)	ND	0.50		ppm	10	9/22/2014 11:28:31 AM	15378
Vinyl chloride	ND	0.20		ppm	10	9/22/2014 11:28:31 AM	15378
Surr: 1,2-Dichloroethane-d4	89.1	70-130		%REC	10	9/22/2014 11:28:31 AM	15378
Surr: 4-Bromofluorobenzene	91.6	70-130		%REC	10	9/22/2014 11:28:31 AM	15378
Surr: Dibromofluoromethane	93.7	70-130		%REC	10	9/22/2014 11:28:31 AM	15378
Surr: Toluene-d8	91.8	70-130		%REC	10	9/22/2014 11:28:31 AM	15378
EPA METHOD 418.1: TPH						Analyst: **JME**	
Petroleum Hydrocarbons, TR	400	20		mg/Kg	1	9/19/2014	15373

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

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REPORT OF ANALYSIS

September 24, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L722648-01

Date Received : September 19, 2014
Description :

Site ID :

Sample ID : 1409872-001B BOX AREA LOCATION SW9045B

Project # :

Collected By :
Collection Date : 09/16/14 11:40

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	09/24/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	09/24/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	09/24/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	09/23/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 09/24/14 16:37 Printed: 09/24/14 16:38
L722648-01 (IGNITABILITY) - Did Not Ignite @ 170 F

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REPORT OF ANALYSIS

September 24, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L722648-02

Date Received : September 19, 2014
Description :

Site ID :

Sample ID : 1409872-002B BOX AREA LOCATION SW9045B

Project # :

Collected By :
Collection Date : 09/16/14 12:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	09/24/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	09/24/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	09/24/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	09/23/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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.
Reported: 09/24/14 16:37 Printed: 09/24/14 16:38
L722648-02 (IGNITABILITY) - Did Not Ignite @ 170 F

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REPORT OF ANALYSIS

September 24, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L722648-03

Date Received : September 19, 2014
Description :

Site ID :

Sample ID : 1409872-003B BOX AREA LOCATION SW9045B

Project # :

Collected By :
Collection Date : 09/16/14 12:15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	09/24/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	09/23/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	09/24/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	09/23/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Reported: 09/24/14 16:37 Printed: 09/24/14 16:38
L722648-03 (IGNITABILITY) - Did Not Ignite @ 170 F

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REPORT OF ANALYSIS

September 24, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L722648-04

Date Received : September 19, 2014
Description :

Site ID :

Sample ID : 1409872-004B BOX AREA LOCATION SW9045B

Project # :

Collected By :
Collection Date : 09/16/14 12:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	09/24/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	09/23/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	09/24/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	09/23/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Reported: 09/24/14 16:37 Printed: 09/24/14 16:38
L722648-04 (IGNITABILITY) - Did Not Ignite @ 170 F

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Hall Environmental Analysis Laboratory

4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L722648

September 24, 2014

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Reactive Sulf.(SW846 7.3.4.1)	< .25	mg/kg			WG744384	09/23/14 16:30
Reactive CN (SW846 7.3.3.2)	< .125	mg/kg			WG744385	09/24/14 11:24

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Ignitability	Deg. F	0.00	0.00	0.00	10	L722648-04	WG744379
Corrosivity		0.0	0.0	0.0	10	L722646-01	WG744447
Corrosivity		0.0	0.0	0.0	10	L723025-01	WG744447
Reactive Sulf.(SW846 7.3.4.1)	mg/kg	0.0	0.0	0.0	20	L722646-01	WG744384
Ignitability	Deg. F	0.00	0.00	0.00	10	L722242-01	WG744667
Reactive CN (SW846 7.3.3.2)	mg/kg	0.0	0.0	0.0	20	L722646-01	WG744385

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
Ignitability	Deg. F	82	83.0	101.	93-107	WG744379
Corrosivity		6.33	6.30	99.5	98.3-101.7	WG744447
Reactive Sulf.(SW846 7.3.4.1)	mg/kg	100	110.	110.	70-130	WG744384
Ignitability	Deg. F	82	82.0	100.	93-107	WG744667
Reactive CN (SW846 7.3.3.2)	mg/kg	.1	0.106	106.	50-150	WG744385

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
Ignitability	Deg. F	82.0	83.0	100.	93-107	1.21	20	WG744379
Corrosivity		6.30	6.30	100.	98.3-101.7	0.0	10	WG744447
Reactive Sulf.(SW846 7.3.4.1)	mg/kg	100.	110.	100.	70-130	9.52	20	WG744384
Ignitability	Deg. F	82.0	82.0	100.	93-107	0.00	20	WG744667
Reactive CN (SW846 7.3.3.2)	mg/kg	0.0982	0.106	98.0	50-150	7.64	20	WG744385

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409872

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Tank Area

Sample ID **MB-15373** SampType: **MBLK** TestCode: **EPA Method 418.1: TPH**

Client ID: **PBS** Batch ID: **15373** RunNo: **21288**

Prep Date: **9/18/2014** Analysis Date: **9/19/2014** SeqNo: **621284** 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-15373** SampType: **LCS** TestCode: **EPA Method 418.1: TPH**

Client ID: **LCSS** Batch ID: **15373** RunNo: **21288**

Prep Date: **9/18/2014** Analysis Date: **9/19/2014** SeqNo: **621285** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	96	20	100.0	0	95.8	80	120			

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.
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#: 1409872

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Tank Area

Sample ID **MB-15363** SampType: **MBLK** TestCode: **EPA Method 8015D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **15363** RunNo: **21269**

Prep Date: **9/18/2014** Analysis Date: **9/18/2014** SeqNo: **620601** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		100	57.9	140			

Sample ID **LCS-15363** SampType: **LCS** TestCode: **EPA Method 8015D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **15363** RunNo: **21269**

Prep Date: **9/18/2014** Analysis Date: **9/18/2014** SeqNo: **620602** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	62	10	50.00	0	125	68.6	130			
Surr: DNOP	5.2		5.000		104	57.9	140			

Sample ID **LCS-15369** SampType: **LCS** TestCode: **EPA Method 8015D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **15369** RunNo: **21309**

Prep Date: **9/18/2014** Analysis Date: **9/19/2014** SeqNo: **622110** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.0		5.000		100	57.9	140			

Sample ID **MB-15369** SampType: **MBLK** TestCode: **EPA Method 8015D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **15369** RunNo: **21309**

Prep Date: **9/18/2014** Analysis Date: **9/19/2014** SeqNo: **622115** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.9		10.00		89.3	57.9	140			

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.
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#: 1409872

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Tank Area

Sample ID **MB-15378** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **15378** RunNo: **21342**

Prep Date: **9/18/2014** Analysis Date: **9/22/2014** SeqNo: **623292** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	940		1000		94.2	80	120			

Sample ID **LCS-15378** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **15378** RunNo: **21342**

Prep Date: **9/18/2014** Analysis Date: **9/22/2014** SeqNo: **623293** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	65.8	139			
Surr: BFB	1000		1000		101	80	120			

Sample ID **5ML RB** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **R21374** RunNo: **21374**

Prep Date: Analysis Date: **9/23/2014** SeqNo: **624891** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	930		1000		92.9	80	120			

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.
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#: 1409872

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Tank Area

Sample ID **MB-15378** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **15378** RunNo: **21342**

Prep Date: **9/18/2014** Analysis Date: **9/22/2014** SeqNo: **623326** 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	1.0		1.000		104	80	120			

Sample ID **LCS-15378** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **15378** RunNo: **21342**

Prep Date: **9/18/2014** Analysis Date: **9/22/2014** SeqNo: **623327** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.050	1.000	0	90.6	80	120			
Toluene	0.91	0.050	1.000	0	91.1	80	120			
Ethylbenzene	0.92	0.050	1.000	0	92.4	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.6	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409872

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Tank Area

Sample ID **mb-15378** SampType: **MBLK** TestCode: **EPA Method 8260B: TCLP Compounds**

Client ID: **PBS** Batch ID: **15378** RunNo: **21355**

Prep Date: **9/18/2014** Analysis Date: **9/20/2014** SeqNo: **623925** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
2-Butanone	ND	20								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	10								
Chloroform	ND	0.60								
1,4-Dichlorobenzene	ND	0.75								
1,1-Dichloroethene	ND	0.070								
Tetrachloroethene (PCE)	ND	0.070								
Trichloroethene (TCE)	ND	0.050								
Vinyl chloride	ND	0.020								
Surr: 1,2-Dichloroethane-d4	0.41		0.5000		82.2	70	130			
Surr: 4-Bromofluorobenzene	0.37		0.5000		74.2	70	130			
Surr: Dibromofluoromethane	0.42		0.5000		84.4	70	130			
Surr: Toluene-d8	0.47		0.5000		94.6	70	130			

Sample ID **lcs-15378** SampType: **LCS** TestCode: **EPA Method 8260B: TCLP Compounds**

Client ID: **LCSS** Batch ID: **15378** RunNo: **21355**

Prep Date: **9/18/2014** Analysis Date: **9/20/2014** SeqNo: **623926** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.050	1.000	0	96.0	70	130			
Chlorobenzene	1.0	0.50	1.000	0	101	70	130			
1,1-Dichloroethene	1.1	0.070	1.000	0	105	60.5	160			
Trichloroethene (TCE)	0.92	0.050	1.000	0	91.5	58.8	139			
Surr: 1,2-Dichloroethane-d4	0.41		0.5000		82.0	70	130			
Surr: 4-Bromofluorobenzene	0.42		0.5000		84.7	70	130			
Surr: Dibromofluoromethane	0.44		0.5000		88.1	70	130			
Surr: Toluene-d8	0.44		0.5000		87.5	70	130			

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.
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#: 1409872

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Tank Area

Sample ID **mb-15387** SampType: **MBLK** TestCode: **Volatiles by 8260B/1311**

Client ID: **PBS** Batch ID: **15387** RunNo: **21356**

Prep Date: **9/18/2014** Analysis Date: **9/22/2014** SeqNo: **623771** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.30								
2-Butanone	ND	200								
Carbon Tetrachloride	ND	0.50								
Chlorobenzene	ND	0.30								
Chloroform	ND	6.0								
1,4-Dichlorobenzene	ND	7.5								
1,2-Dichloroethane (EDC)	ND	0.50								
1,1-Dichloroethene	ND	0.30								
Hexachlorobutadiene	ND	0.50								
Tetrachloroethene (PCE)	ND	0.70								
Trichloroethene (TCE)	ND	0.30								
Vinyl chloride	ND	0.20								
Surr: 1,2-Dichloroethane-d4	0.18		0.2000		88.7	69.9	130			
Surr: 4-Bromofluorobenzene	0.17		0.2000		85.8	71.2	123			
Surr: Dibromofluoromethane	0.19		0.2000		93.9	73.9	134			
Surr: Toluene-d8	0.18		0.2000		91.0	81.9	122			

Sample ID **lcs-15387** SampType: **LCS** TestCode: **Volatiles by 8260B/1311**

Client ID: **LCSS** Batch ID: **15387** RunNo: **21356**

Prep Date: **9/18/2014** Analysis Date: **9/22/2014** SeqNo: **623772** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.40	0.30	0.4000	0	99.4	51.1	171			
Chlorobenzene	0.42	0.30	0.4000	0	104	36.1	191			
1,1-Dichloroethene	0.44	0.30	0.4000	0	110	49.1	162			
Trichloroethene (TCE)	0.36	0.30	0.4000	0	90.4	41.2	166			
Surr: 1,2-Dichloroethane-d4	0.17		0.2000		86.7	69.9	130			
Surr: 4-Bromofluorobenzene	0.19		0.2000		92.7	71.2	123			
Surr: Dibromofluoromethane	0.17		0.2000		87.0	73.9	134			
Surr: Toluene-d8	0.18		0.2000		90.7	81.9	122			

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.
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#: 1409872

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Tank Area

Sample ID **mb-15413** SampType: **MBLK** TestCode: **EPA Method 8270C TCLP**

Client ID: **PBS** Batch ID: **15413** RunNo: **21387**

Prep Date: **9/22/2014** Analysis Date: **9/23/2014** SeqNo: **624719** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
Phenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Surr: 2-Fluorophenol	0.16		0.2000		78.8	25	105			
Surr: Phenol-d5	0.14		0.2000		68.7	22.3	70.3			
Surr: 2,4,6-Tribromophenol	0.16		0.2000		79.7	30.4	134			
Surr: Nitrobenzene-d5	0.092		0.1000		91.6	54.8	128			
Surr: 2-Fluorobiphenyl	0.086		0.1000		85.6	53.3	122			
Surr: 4-Terphenyl-d14	0.090		0.1000		90.1	51.8	133			

Sample ID **lcs-15413** SampType: **LCS** TestCode: **EPA Method 8270C TCLP**

Client ID: **LCSS** Batch ID: **15413** RunNo: **21387**

Prep Date: **9/22/2014** Analysis Date: **9/23/2014** SeqNo: **624720** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.076	0.010	0.1000	0	75.9	52.2	95.7			
3+4-Methylphenol	0.17	0.010	0.2000	0	85.5	52.4	142			
2,4-Dinitrotoluene	0.067	0.010	0.1000	0	67.1	43.4	110			
Hexachlorobenzene	0.078	0.010	0.1000	0	78.1	43.6	88.4			
Hexachlorobutadiene	0.064	0.010	0.1000	0	63.6	38.6	88.4			
Hexachloroethane	0.074	0.010	0.1000	0	73.7	45.7	83.6			
Nitrobenzene	0.077	0.010	0.1000	0	77.1	51.9	112			
Pentachlorophenol	0.033	0.010	0.1000	0	33.1	15.2	81.5			
Pyridine	0.062	0.010	0.1000	0	61.9	11.2	95.1			
2,4,5-Trichlorophenol	0.067	0.010	0.1000	0	66.8	46.9	110			
2,4,6-Trichlorophenol	0.064	0.010	0.1000	0	64.3	36.1	111			
Cresols, Total	0.25	0.010	0.3000	0	82.3	30	136			
Surr: 2-Fluorophenol	0.14		0.2000		71.6	25	105			
Surr: Phenol-d5	0.14		0.2000		70.7	22.3	70.3			S

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.
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#: 1409872

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Tank Area

Sample ID **lcs-15413** SampType: **LCS** TestCode: **EPA Method 8270C TCLP**

Client ID: **LCSS** Batch ID: **15413** RunNo: **21387**

Prep Date: **9/22/2014** Analysis Date: **9/23/2014** SeqNo: **624720** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	0.11		0.2000		56.0	30.4	134			
Surr: Nitrobenzene-d5	0.077		0.1000		76.6	54.8	128			
Surr: 2-Fluorobiphenyl	0.074		0.1000		74.0	53.3	122			
Surr: 4-Terphenyl-d14	0.076		0.1000		75.5	51.8	133			

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.
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#: 1409872

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Tank Area

Sample ID **MB-15428** SampType: **MBLK** TestCode: **MERCURY, TCLP**

Client ID: **PBW** Batch ID: **15428** RunNo: **21367**

Prep Date: **9/22/2014** Analysis Date: **9/23/2014** SeqNo: **623963** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Sample ID **LCS-15428** SampType: **LCS** TestCode: **MERCURY, TCLP**

Client ID: **LCSW** Batch ID: **15428** RunNo: **21367**

Prep Date: **9/22/2014** Analysis Date: **9/23/2014** SeqNo: **623964** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	98.4	80	120			

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.
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#: 1409872

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Tank Area

Sample ID **MB-15406** SampType: **MBLK** TestCode: **EPA Method 6010B: TCLP Metals**

Client ID: **PBW** Batch ID: **15406** RunNo: **21324**

Prep Date: **9/19/2014** Analysis Date: **9/20/2014** SeqNo: **622314** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID **LCS-15406** SampType: **LCS** TestCode: **EPA Method 6010B: TCLP Metals**

Client ID: **LCSW** Batch ID: **15406** RunNo: **21324**

Prep Date: **9/19/2014** Analysis Date: **9/20/2014** SeqNo: **622315** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	109	80	120			
Barium	ND	100	0.5000	0	98.8	80	120			
Cadmium	ND	1.0	0.5000	0	103	80	120			
Chromium	ND	5.0	0.5000	0	97.5	80	120			
Lead	ND	5.0	0.5000	0	96.3	80	120			
Selenium	ND	1.0	0.5000	0	111	80	120			
Silver	ND	5.0	0.1000	0	104	80	120			

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
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: 1409872 RcptNo: 1

Received by/date: MG 09/17/14

Logged By: Michelle Garcia 9/17/2014 4:32:00 PM Michelle Garcia

Completed By: Michelle Garcia 9/17/2014 6:07:52 PM Michelle Garcia

Reviewed By: 09/18/14

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? Courier

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? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
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? Yes ☑ No ☐
    (If no, notify customer for authorization.)

# 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:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western - Refining

Mailing Address: 92 GIANT CROSSING ROAD

Gallup NM 87301

Phone #: 505 722 3833

email or Fax#: 505 863 0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

☐ Other _____

☐ EDD (Type) _____

Turn Around Time:

☐ Standard ☒ Rush

Project Name:

Excavation Underground Tank Area

Project #:

North of Bullet Tanks

Project Manager:

Beck Larsen

Sampler: A.Dorsey / J. TSO / K.Sanchez

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

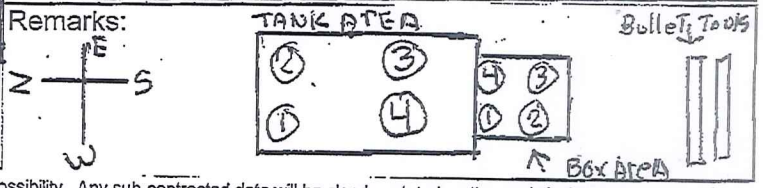
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1409872	BTEX (8021)B	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO/DRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) TCLP	8270 (Semi-VOA) TCLP	RCI	TCLP Metals			Air Bubbles (Y or N)
9/16/2014	11:40	Soil	Tank Area Location # 1	9 oz - 3	N/A	-001	X		X	X						X	X	X	X			
9/16/2014	12:00	Soil	Tank Area Location # 2	9 oz - 3	N/A	-002	X		X	X						X	X	X	X			
9/16/2014	12:15	Soil	Tank Area Location # 3	9 oz - 3	N/A	-003	X		X	X						X	X	X	X			
9/16/2014	12:30	Soil	Tank Area Location # 4	9 oz - 3	N/A	-004	X		X	X						X	X	X	X			

Remarks:

Remarks:



Date:	Time:	Relinquished by:	Received by:	Date	Time
09-17-14	14:30	Alvin Dorsey	Michelle Garcia	09/17/14	1630
Date:	Time:	Relinquished by:	Received by:	Date	Time
9/17/14	1632				

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Appendix A-4

Hall Environmental Analysis Laboratory, Inc. –

September 24, 2014

Analytical Report No. 1409873

9/16/14

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

September 24, 2014

Beck Larsen
Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0258
FAX (505) 722-0210

RE: Excavation Underground Box Area

OrderNo.: 1409873

Dear Beck Larsen:

Hall Environmental Analysis Laboratory received 4 sample(s) on 9/17/2014 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 qualifers 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1409873**
Date Reported: **9/24/2014**

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Box Area
Lab ID: 1409873-001 **Matrix:** SOIL

Client Sample ID: Box Area Location #1
Collection Date: 9/16/2014 12:50:00 PM
Received Date: 9/17/2014 4:32:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**BCN**
Diesel Range Organics (DRO)	90	9.9		mg/Kg	1	9/19/2014 4:34:43 PM	15363
Surr: DNOP	105	57.9-140		%REC	1	9/19/2014 4:34:43 PM	15363
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	110	5.0		mg/Kg	1	9/22/2014 2:45:24 PM	15378
Surr: BFB	386	80-120	S	%REC	1	9/22/2014 2:45:24 PM	15378
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	0.21	0.050		mg/Kg	1	9/22/2014 2:45:24 PM	15378
Toluene	3.1	0.050		mg/Kg	1	9/22/2014 2:45:24 PM	15378
Ethylbenzene	0.51	0.050		mg/Kg	1	9/22/2014 2:45:24 PM	15378
Xylenes, Total	3.4	0.10		mg/Kg	1	9/22/2014 2:45:24 PM	15378
Surr: 4-Bromofluorobenzene	127	80-120	S	%REC	1	9/22/2014 2:45:24 PM	15378
MERCURY, TCLP						Analyst:	**JLF**
Mercury	ND	0.020		mg/L	1	9/23/2014 11:06:16 AM	15428
EPA METHOD 6010B: TCLP METALS						Analyst:	**ELS**
Arsenic	ND	5.0		mg/L	1	9/20/2014 10:03:29 AM	15406
Barium	ND	100		mg/L	1	9/20/2014 10:03:29 AM	15406
Cadmium	ND	1.0		mg/L	1	9/20/2014 10:03:29 AM	15406
Chromium	ND	5.0		mg/L	1	9/20/2014 10:03:29 AM	15406
Lead	ND	5.0		mg/L	1	9/20/2014 10:03:29 AM	15406
Selenium	ND	1.0		mg/L	1	9/20/2014 10:03:29 AM	15406
Silver	ND	5.0		mg/L	1	9/20/2014 10:03:29 AM	15406
EPA METHOD 8270C TCLP						Analyst:	**DAM**
2-Methylphenol	ND	200		mg/L	1	9/23/2014 3:51:36 PM	15413
3+4-Methylphenol	ND	200		mg/L	1	9/23/2014 3:51:36 PM	15413
Phenol	ND	200		mg/L	1	9/23/2014 3:51:36 PM	15413
2,4-Dinitrotoluene	ND	0.13		mg/L	1	9/23/2014 3:51:36 PM	15413
Hexachlorobenzene	ND	0.13		mg/L	1	9/23/2014 3:51:36 PM	15413
Hexachlorobutadiene	ND	0.50		mg/L	1	9/23/2014 3:51:36 PM	15413
Hexachloroethane	ND	3.0		mg/L	1	9/23/2014 3:51:36 PM	15413
Nitrobenzene	ND	2.0		mg/L	1	9/23/2014 3:51:36 PM	15413
Pentachlorophenol	ND	100		mg/L	1	9/23/2014 3:51:36 PM	15413
Pyridine	ND	5.0		mg/L	1	9/23/2014 3:51:36 PM	15413
2,4,5-Trichlorophenol	ND	400		mg/L	1	9/23/2014 3:51:36 PM	15413
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	9/23/2014 3:51:36 PM	15413
Cresols, Total	ND	200		mg/L	1	9/23/2014 3:51:36 PM	15413
Surr: 2-Fluorophenol	53.2	25-105		%REC	1	9/23/2014 3:51:36 PM	15413
Surr: Phenol-d5	62.6	22.3-70.3		%REC	1	9/23/2014 3:51:36 PM	15413

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Box Area
Lab ID: 1409873-001 **Matrix:** SOIL

Client Sample ID: Box Area Location #1
Collection Date: 9/16/2014 12:50:00 PM
Received Date: 9/17/2014 4:32:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	39.5	30.4-134		%REC	1	9/23/2014 3:51:36 PM	15413
Surr: Nitrobenzene-d5	86.3	54.8-128		%REC	1	9/23/2014 3:51:36 PM	15413
Surr: 2-Fluorobiphenyl	86.6	53.3-122		%REC	1	9/23/2014 3:51:36 PM	15413
Surr: 4-Terphenyl-d14	81.3	51.8-133		%REC	1	9/23/2014 3:51:36 PM	15413
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **cadg**	
Benzene	ND	0.50		ppm	10	9/22/2014 11:56:33 AM	15378
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	9/22/2014 11:56:33 AM	15378
2-Butanone	ND	200		ppm	10	9/22/2014 11:56:33 AM	15378
Carbon tetrachloride	ND	0.50		ppm	10	9/22/2014 11:56:33 AM	15378
Chlorobenzene	ND	100		ppm	10	9/22/2014 11:56:33 AM	15378
Chloroform	ND	6.0		ppm	10	9/22/2014 11:56:33 AM	15378
1,4-Dichlorobenzene	ND	7.5		ppm	10	9/22/2014 11:56:33 AM	15378
1,1-Dichloroethene	ND	0.70		ppm	10	9/22/2014 11:56:33 AM	15378
Tetrachloroethene (PCE)	ND	0.70		ppm	10	9/22/2014 11:56:33 AM	15378
Trichloroethene (TCE)	ND	0.50		ppm	10	9/22/2014 11:56:33 AM	15378
Vinyl chloride	ND	0.20		ppm	10	9/22/2014 11:56:33 AM	15378
Surr: 1,2-Dichloroethane-d4	95.3	70-130		%REC	10	9/22/2014 11:56:33 AM	15378
Surr: 4-Bromofluorobenzene	97.9	70-130		%REC	10	9/22/2014 11:56:33 AM	15378
Surr: Dibromofluoromethane	97.4	70-130		%REC	10	9/22/2014 11:56:33 AM	15378
Surr: Toluene-d8	83.6	70-130		%REC	10	9/22/2014 11:56:33 AM	15378
EPA METHOD 418.1: TPH						Analyst: **JME**	
Petroleum Hydrocarbons, TR	160	20		mg/Kg	1	9/19/2014	15373

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Box Area
Lab ID: 1409873-002 **Matrix:** SOIL

Client Sample ID: Box Area Location #2
Collection Date: 9/16/2014 1:05:00 PM
Received Date: 9/17/2014 4:32:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	BCN
Diesel Range Organics (DRO)	980	100		mg/Kg	10	9/19/2014 5:04:59 PM	15363
Surr: DNOP	0	57.9-140	S	%REC	10	9/19/2014 5:04:59 PM	15363
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	NSB
Gasoline Range Organics (GRO)	230	5.0		mg/Kg	1	9/22/2014 3:14:00 PM	15378
Surr: BFB	484	80-120	S	%REC	1	9/22/2014 3:14:00 PM	15378
EPA METHOD 8021B: VOLATILES						Analyst:	NSB
Benzene	0.082	0.050		mg/Kg	1	9/22/2014 3:14:00 PM	15378
Toluene	8.0	0.50		mg/Kg	10	9/23/2014 4:19:00 AM	15378
Ethylbenzene	1.2	0.050		mg/Kg	1	9/22/2014 3:14:00 PM	15378
Xylenes, Total	8.6	0.10		mg/Kg	1	9/22/2014 3:14:00 PM	15378
Surr: 4-Bromofluorobenzene	141	80-120	S	%REC	1	9/22/2014 3:14:00 PM	15378
MERCURY, TCLP						Analyst:	JLF
Mercury	ND	0.020		mg/L	1	9/23/2014 11:11:49 AM	15428
EPA METHOD 6010B: TCLP METALS						Analyst:	ELS
Arsenic	ND	5.0		mg/L	1	9/20/2014 10:04:43 AM	15406
Barium	ND	100		mg/L	1	9/20/2014 10:04:43 AM	15406
Cadmium	ND	1.0		mg/L	1	9/20/2014 10:04:43 AM	15406
Chromium	ND	5.0		mg/L	1	9/20/2014 10:04:43 AM	15406
Lead	ND	5.0		mg/L	1	9/20/2014 10:04:43 AM	15406
Selenium	ND	1.0		mg/L	1	9/20/2014 10:04:43 AM	15406
Silver	ND	5.0		mg/L	1	9/20/2014 10:04:43 AM	15406
EPA METHOD 8270C TCLP						Analyst:	DAM
2-Methylphenol	ND	200		mg/L	1	9/23/2014 4:20:47 PM	15413
3+4-Methylphenol	ND	200		mg/L	1	9/23/2014 4:20:47 PM	15413
Phenol	ND	200		mg/L	1	9/23/2014 4:20:47 PM	15413
2,4-Dinitrotoluene	ND	0.13		mg/L	1	9/23/2014 4:20:47 PM	15413
Hexachlorobenzene	ND	0.13		mg/L	1	9/23/2014 4:20:47 PM	15413
Hexachlorobutadiene	ND	0.50		mg/L	1	9/23/2014 4:20:47 PM	15413
Hexachloroethane	ND	3.0		mg/L	1	9/23/2014 4:20:47 PM	15413
Nitrobenzene	ND	2.0		mg/L	1	9/23/2014 4:20:47 PM	15413
Pentachlorophenol	ND	100		mg/L	1	9/23/2014 4:20:47 PM	15413
Pyridine	ND	5.0		mg/L	1	9/23/2014 4:20:47 PM	15413
2,4,5-Trichlorophenol	ND	400		mg/L	1	9/23/2014 4:20:47 PM	15413
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	9/23/2014 4:20:47 PM	15413
Cresols, Total	ND	200		mg/L	1	9/23/2014 4:20:47 PM	15413
Surr: 2-Fluorophenol	48.5	25-105		%REC	1	9/23/2014 4:20:47 PM	15413
Surr: Phenol-d5	54.5	22.3-70.3		%REC	1	9/23/2014 4:20:47 PM	15413

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Box Area
Lab ID: 1409873-002 **Matrix:** SOIL

Client Sample ID: Box Area Location #2
Collection Date: 9/16/2014 1:05:00 PM
Received Date: 9/17/2014 4:32:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst:	DAM
Surr: 2,4,6-Tribromophenol	37.3	30.4-134		%REC	1	9/23/2014 4:20:47 PM	15413
Surr: Nitrobenzene-d5	88.7	54.8-128		%REC	1	9/23/2014 4:20:47 PM	15413
Surr: 2-Fluorobiphenyl	80.4	53.3-122		%REC	1	9/23/2014 4:20:47 PM	15413
Surr: 4-Terphenyl-d14	80.1	51.8-133		%REC	1	9/23/2014 4:20:47 PM	15413
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst:	cadg
Benzene	ND	0.50		ppm	10	9/22/2014 12:24:35 PM	15378
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	9/22/2014 12:24:35 PM	15378
2-Butanone	ND	200		ppm	10	9/22/2014 12:24:35 PM	15378
Carbon tetrachloride	ND	0.50		ppm	10	9/22/2014 12:24:35 PM	15378
Chlorobenzene	ND	100		ppm	10	9/22/2014 12:24:35 PM	15378
Chloroform	ND	6.0		ppm	10	9/22/2014 12:24:35 PM	15378
1,4-Dichlorobenzene	ND	7.5		ppm	10	9/22/2014 12:24:35 PM	15378
1,1-Dichloroethene	ND	0.70		ppm	10	9/22/2014 12:24:35 PM	15378
Tetrachloroethene (PCE)	ND	0.70		ppm	10	9/22/2014 12:24:35 PM	15378
Trichloroethene (TCE)	ND	0.50		ppm	10	9/22/2014 12:24:35 PM	15378
Vinyl chloride	ND	0.20		ppm	10	9/22/2014 12:24:35 PM	15378
Surr: 1,2-Dichloroethane-d4	88.2	70-130		%REC	10	9/22/2014 12:24:35 PM	15378
Surr: 4-Bromofluorobenzene	91.4	70-130		%REC	10	9/22/2014 12:24:35 PM	15378
Surr: Dibromofluoromethane	93.1	70-130		%REC	10	9/22/2014 12:24:35 PM	15378
Surr: Toluene-d8	92.9	70-130		%REC	10	9/22/2014 12:24:35 PM	15378
EPA METHOD 418.1: TPH						Analyst:	JME
Petroleum Hydrocarbons, TR	1400	200		mg/Kg	10	9/19/2014	15373

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Box Area
Lab ID: 1409873-003 **Matrix:** SOIL

Client Sample ID: Box Area Location #3
Collection Date: 9/16/2014 1:20:00 PM
Received Date: 9/17/2014 4:32:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	BCN
Diesel Range Organics (DRO)	3600	100		mg/Kg	10	9/19/2014 5:35:14 PM	15363
Surr: DNOP	0	57.9-140	S	%REC	10	9/19/2014 5:35:14 PM	15363
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	NSB
Gasoline Range Organics (GRO)	560	50		mg/Kg	10	9/23/2014 10:51:01 AM	15378
Surr: BFB	191	80-120	S	%REC	10	9/23/2014 10:51:01 AM	15378
EPA METHOD 8021B: VOLATILES						Analyst:	NSB
Benzene	0.22	0.050		mg/Kg	1	9/22/2014 3:42:39 PM	15378
Toluene	4.7	0.050		mg/Kg	1	9/22/2014 3:42:39 PM	15378
Ethylbenzene	2.9	0.050		mg/Kg	1	9/22/2014 3:42:39 PM	15378
Xylenes, Total	26	1.0		mg/Kg	10	9/23/2014 10:51:01 AM	15378
Surr: 4-Bromofluorobenzene	176	80-120	S	%REC	1	9/22/2014 3:42:39 PM	15378
MERCURY, TCLP						Analyst:	JLF
Mercury	ND	0.020		mg/L	1	9/23/2014 11:13:39 AM	15428
EPA METHOD 6010B: TCLP METALS						Analyst:	ELS
Arsenic	ND	5.0		mg/L	1	9/20/2014 10:05:56 AM	15406
Barium	ND	100		mg/L	1	9/20/2014 10:05:56 AM	15406
Cadmium	ND	1.0		mg/L	1	9/20/2014 10:05:56 AM	15406
Chromium	ND	5.0		mg/L	1	9/20/2014 10:05:56 AM	15406
Lead	ND	5.0		mg/L	1	9/20/2014 10:05:56 AM	15406
Selenium	ND	1.0		mg/L	1	9/20/2014 10:05:56 AM	15406
Silver	ND	5.0		mg/L	1	9/20/2014 10:05:56 AM	15406
EPA METHOD 8270C TCLP						Analyst:	DAM
2-Methylphenol	ND	200		mg/L	1	9/23/2014 4:50:01 PM	15413
3+4-Methylphenol	ND	200		mg/L	1	9/23/2014 4:50:01 PM	15413
Phenol	ND	200		mg/L	1	9/23/2014 4:50:01 PM	15413
2,4-Dinitrotoluene	ND	0.13		mg/L	1	9/23/2014 4:50:01 PM	15413
Hexachlorobenzene	ND	0.13		mg/L	1	9/23/2014 4:50:01 PM	15413
Hexachlorobutadiene	ND	0.50		mg/L	1	9/23/2014 4:50:01 PM	15413
Hexachloroethane	ND	3.0		mg/L	1	9/23/2014 4:50:01 PM	15413
Nitrobenzene	ND	2.0		mg/L	1	9/23/2014 4:50:01 PM	15413
Pentachlorophenol	ND	100		mg/L	1	9/23/2014 4:50:01 PM	15413
Pyridine	ND	5.0		mg/L	1	9/23/2014 4:50:01 PM	15413
2,4,5-Trichlorophenol	ND	400		mg/L	1	9/23/2014 4:50:01 PM	15413
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	9/23/2014 4:50:01 PM	15413
Cresols, Total	ND	200		mg/L	1	9/23/2014 4:50:01 PM	15413
Surr: 2-Fluorophenol	49.6	25-105		%REC	1	9/23/2014 4:50:01 PM	15413
Surr: Phenol-d5	53.3	22.3-70.3		%REC	1	9/23/2014 4:50:01 PM	15413

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Box Area
Lab ID: 1409873-003 **Matrix:** SOIL

Client Sample ID: Box Area Location #3
Collection Date: 9/16/2014 1:20:00 PM
Received Date: 9/17/2014 4:32:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst:	DAM
Surr: 2,4,6-Tribromophenol	38.5	30.4-134		%REC	1	9/23/2014 4:50:01 PM	15413
Surr: Nitrobenzene-d5	80.2	54.8-128		%REC	1	9/23/2014 4:50:01 PM	15413
Surr: 2-Fluorobiphenyl	75.7	53.3-122		%REC	1	9/23/2014 4:50:01 PM	15413
Surr: 4-Terphenyl-d14	78.7	51.8-133		%REC	1	9/23/2014 4:50:01 PM	15413
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst:	cadg
Benzene	ND	0.50		ppm	10	9/22/2014 12:52:44 PM	15378
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	9/22/2014 12:52:44 PM	15378
2-Butanone	ND	200		ppm	10	9/22/2014 12:52:44 PM	15378
Carbon tetrachloride	ND	0.50		ppm	10	9/22/2014 12:52:44 PM	15378
Chlorobenzene	ND	100		ppm	10	9/22/2014 12:52:44 PM	15378
Chloroform	ND	6.0		ppm	10	9/22/2014 12:52:44 PM	15378
1,4-Dichlorobenzene	ND	7.5		ppm	10	9/22/2014 12:52:44 PM	15378
1,1-Dichloroethene	ND	0.70		ppm	10	9/22/2014 12:52:44 PM	15378
Tetrachloroethene (PCE)	ND	0.70		ppm	10	9/22/2014 12:52:44 PM	15378
Trichloroethene (TCE)	ND	0.50		ppm	10	9/22/2014 12:52:44 PM	15378
Vinyl chloride	ND	0.20		ppm	10	9/22/2014 12:52:44 PM	15378
Surr: 1,2-Dichloroethane-d4	99.0	70-130		%REC	10	9/22/2014 12:52:44 PM	15378
Surr: 4-Bromofluorobenzene	109	70-130		%REC	10	9/22/2014 12:52:44 PM	15378
Surr: Dibromofluoromethane	100	70-130		%REC	10	9/22/2014 12:52:44 PM	15378
Surr: Toluene-d8	85.8	70-130		%REC	10	9/22/2014 12:52:44 PM	15378
EPA METHOD 418.1: TPH						Analyst:	JME
Petroleum Hydrocarbons, TR	1900	200		mg/Kg	10	9/19/2014	15373

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Box Area
Lab ID: 1409873-004 **Matrix:** SOIL

Client Sample ID: Box Area Location #4
Collection Date: 9/16/2014 1:35:00 PM
Received Date: 9/17/2014 4:32:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	BCN
Diesel Range Organics (DRO)	790	10		mg/Kg	1	9/19/2014 6:05:30 PM	15363
Surr: DNOP	108	57.9-140		%REC	1	9/19/2014 6:05:30 PM	15363
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	NSB
Gasoline Range Organics (GRO)	390	50		mg/Kg	10	9/23/2014 11:21:14 AM	15378
Surr: BFB	184	80-120	S	%REC	10	9/23/2014 11:21:14 AM	15378
EPA METHOD 8021B: VOLATILES						Analyst:	NSB
Benzene	0.39	0.050		mg/Kg	1	9/22/2014 4:11:15 PM	15378
Toluene	12	0.50		mg/Kg	10	9/23/2014 11:21:14 AM	15378
Ethylbenzene	2.0	0.050		mg/Kg	1	9/22/2014 4:11:15 PM	15378
Xylenes, Total	15	1.0		mg/Kg	10	9/23/2014 11:21:14 AM	15378
Surr: 4-Bromofluorobenzene	169	80-120	S	%REC	1	9/22/2014 4:11:15 PM	15378
MERCURY, TCLP						Analyst:	JLF
Mercury	ND	0.020		mg/L	1	9/23/2014 11:15:29 AM	15428
EPA METHOD 6010B: TCLP METALS						Analyst:	ELS
Arsenic	ND	5.0		mg/L	1	9/20/2014 10:07:11 AM	15406
Barium	ND	100		mg/L	1	9/20/2014 10:07:11 AM	15406
Cadmium	ND	1.0		mg/L	1	9/20/2014 10:07:11 AM	15406
Chromium	ND	5.0		mg/L	1	9/20/2014 10:07:11 AM	15406
Lead	ND	5.0		mg/L	1	9/20/2014 10:07:11 AM	15406
Selenium	ND	1.0		mg/L	1	9/20/2014 10:07:11 AM	15406
Silver	ND	5.0		mg/L	1	9/20/2014 10:07:11 AM	15406
EPA METHOD 8270C TCLP						Analyst:	DAM
2-Methylphenol	ND	200		mg/L	1	9/23/2014 5:19:05 PM	15413
3+4-Methylphenol	ND	200		mg/L	1	9/23/2014 5:19:05 PM	15413
Phenol	ND	200		mg/L	1	9/23/2014 5:19:05 PM	15413
2,4-Dinitrotoluene	ND	0.13		mg/L	1	9/23/2014 5:19:05 PM	15413
Hexachlorobenzene	ND	0.13		mg/L	1	9/23/2014 5:19:05 PM	15413
Hexachlorobutadiene	ND	0.50		mg/L	1	9/23/2014 5:19:05 PM	15413
Hexachloroethane	ND	3.0		mg/L	1	9/23/2014 5:19:05 PM	15413
Nitrobenzene	ND	2.0		mg/L	1	9/23/2014 5:19:05 PM	15413
Pentachlorophenol	ND	100		mg/L	1	9/23/2014 5:19:05 PM	15413
Pyridine	ND	5.0		mg/L	1	9/23/2014 5:19:05 PM	15413
2,4,5-Trichlorophenol	ND	400		mg/L	1	9/23/2014 5:19:05 PM	15413
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	9/23/2014 5:19:05 PM	15413
Cresols, Total	ND	200		mg/L	1	9/23/2014 5:19:05 PM	15413
Surr: 2-Fluorophenol	68.7	25-105		%REC	1	9/23/2014 5:19:05 PM	15413
Surr: Phenol-d5	67.8	22.3-70.3		%REC	1	9/23/2014 5:19:05 PM	15413

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Box Area
Lab ID: 1409873-004 **Matrix:** SOIL

Client Sample ID: Box Area Location #4
Collection Date: 9/16/2014 1:35:00 PM
Received Date: 9/17/2014 4:32:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	84.2	30.4-134		%REC	1	9/23/2014 5:19:05 PM	15413
Surr: Nitrobenzene-d5	95.6	54.8-128		%REC	1	9/23/2014 5:19:05 PM	15413
Surr: 2-Fluorobiphenyl	88.2	53.3-122		%REC	1	9/23/2014 5:19:05 PM	15413
Surr: 4-Terphenyl-d14	95.8	51.8-133		%REC	1	9/23/2014 5:19:05 PM	15413
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **cadg**	
Benzene	ND	0.50		ppm	10	9/22/2014 1:20:59 PM	15378
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	9/22/2014 1:20:59 PM	15378
2-Butanone	ND	200		ppm	10	9/22/2014 1:20:59 PM	15378
Carbon tetrachloride	ND	0.50		ppm	10	9/22/2014 1:20:59 PM	15378
Chlorobenzene	ND	100		ppm	10	9/22/2014 1:20:59 PM	15378
Chloroform	ND	6.0		ppm	10	9/22/2014 1:20:59 PM	15378
1,4-Dichlorobenzene	ND	7.5		ppm	10	9/22/2014 1:20:59 PM	15378
1,1-Dichloroethene	ND	0.70		ppm	10	9/22/2014 1:20:59 PM	15378
Tetrachloroethene (PCE)	ND	0.70		ppm	10	9/22/2014 1:20:59 PM	15378
Trichloroethene (TCE)	ND	0.50		ppm	10	9/22/2014 1:20:59 PM	15378
Vinyl chloride	ND	0.20		ppm	10	9/22/2014 1:20:59 PM	15378
Surr: 1,2-Dichloroethane-d4	84.3	70-130		%REC	10	9/22/2014 1:20:59 PM	15378
Surr: 4-Bromofluorobenzene	106	70-130		%REC	10	9/22/2014 1:20:59 PM	15378
Surr: Dibromofluoromethane	86.1	70-130		%REC	10	9/22/2014 1:20:59 PM	15378
Surr: Toluene-d8	87.4	70-130		%REC	10	9/22/2014 1:20:59 PM	15378
EPA METHOD 418.1: TPH						Analyst: **JME**	
Petroleum Hydrocarbons, TR	710	20		mg/Kg	1	9/19/2014	15373

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

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REPORT OF ANALYSIS

September 24, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L722646-01

Date Received : September 19, 2014
Description :

Site ID :

Sample ID : 1409873-001B BOX AREA LOCATION SW9045B

Project # :

Collected By :
Collection Date : 09/16/14 12:50

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	09/24/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	09/24/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	09/24/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	09/23/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 09/24/14 16:37 Printed: 09/24/14 16:38
L722646-01 (IGNITABILITY) - Did Not Ignite @ 170 F

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REPORT OF ANALYSIS

September 24, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L722646-02

Date Received : September 19, 2014
Description :

Site ID :

Sample ID : 1409873-002B BOX AREA LOCATION SW9045B

Project # :

Collected By :
Collection Date : 09/16/14 13:05

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	09/24/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	09/24/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	09/24/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	09/23/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Reported: 09/24/14 16:37 Printed: 09/24/14 16:38
L722646-02 (IGNITABILITY) - Did Not Ignite @ 170 F

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REPORT OF ANALYSIS

September 24, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L722646-03

Date Received : September 19, 2014
Description :

Site ID :

Sample ID : 1409873-003B BOX AREA LOCATION SW9045B

Project # :

Collected By :
Collection Date : 09/16/14 13:20

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	09/24/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	09/24/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	09/24/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	09/23/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Reported: 09/24/14 16:37 Printed: 09/24/14 16:38
L722646-03 (IGNITABILITY) - Did Not Ignite @ 170 F

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REPORT OF ANALYSIS

September 24, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L722646-04

Date Received : September 19, 2014
Description :

Site ID :

Sample ID : 1409873-004B BOX AREA LOCATION SW9045B

Project # :

Collected By :
Collection Date : 09/16/14 13:35

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9045D	09/24/14	1
Ignitability	See Footnote		Deg. F	D93/1010A	09/24/14	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	09/24/14	1
Reactive Sulf.(SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	09/23/14	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 09/24/14 16:37 Printed: 09/24/14 16:38
L722646-04 (IGNITABILITY) - Did Not Ignite @ 170 F

ESC
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Hall Environmental Analysis Laboratory

4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L722646

September 24, 2014

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Reactive Sulf.(SW846 7.3.4.1)	< 25	mg/kg			WG744384	09/23/14 16:30
Reactive CN (SW846 7.3.3.2)	< .125	mg/kg			WG744385	09/24/14 11:24

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Corrosivity		0.0	0.0	0.0	10	L722646-01	WG744447
Corrosivity		0.0	0.0	0.0	10	L723025-01	WG744447
Reactive Sulf.(SW846 7.3.4.1)	mg/kg	0.0	0.0	0.0	20	L722646-01	WG744384
Ignitability	Deg. F	0.00	0.00	0.00	10	L722242-01	WG744667
Reactive CN (SW846 7.3.3.2)	mg/kg	0.0	0.0	0.0	20	L722646-01	WG744385

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
Corrosivity		6.33	6.30	99.5	98.3-101.7	WG744447
Reactive Sulf.(SW846 7.3.4.1)	mg/kg	100	110.	110.	70-130	WG744384
Ignitability	Deg. F	82	82.0	100.	93-107	WG744667
Reactive CN (SW846 7.3.3.2)	mg/kg	.1	0.106	106.	50-150	WG744385

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
Corrosivity		6.30	6.30	100.	98.3-101.7	0.0	10	WG744447
Reactive Sulf.(SW846 7.3.4.1)	mg/kg	100.	110.	100.	70-130	9.52	20	WG744384
Ignitability	Deg. F	82.0	82.0	100.	93-107	0.00	20	WG744667
Reactive CN (SW846 7.3.3.2)	mg/kg	0.0982	0.106	98.0	50-150	7.64	20	WG744385

Batch number /Run number / Sample number cross reference

WG744447: R2992418: L722646-01 02 03 04
WG744384: R2992475: L722646-01 02 03 04
WG744667: R2992509: L722646-01 02 03 04
WG744385: R2992554: L722646-01 02 03 04

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409873

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID **MB-15373** SampType: **MBLK** TestCode: **EPA Method 418.1: TPH**

Client ID: **PBS** Batch ID: **15373** RunNo: **21288**

Prep Date: **9/18/2014** Analysis Date: **9/19/2014** SeqNo: **621284** 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-15373** SampType: **LCS** TestCode: **EPA Method 418.1: TPH**

Client ID: **LCSS** Batch ID: **15373** RunNo: **21288**

Prep Date: **9/18/2014** Analysis Date: **9/19/2014** SeqNo: **621285** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	96	20	100.0	0	95.8	80	120			

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.
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#: 1409873

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID **MB-15363** SampType: **MBLK** TestCode: **EPA Method 8015D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **15363** RunNo: **21269**

Prep Date: **9/18/2014** Analysis Date: **9/18/2014** SeqNo: **620601** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		100	57.9	140			

Sample ID **LCS-15363** SampType: **LCS** TestCode: **EPA Method 8015D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **15363** RunNo: **21269**

Prep Date: **9/18/2014** Analysis Date: **9/18/2014** SeqNo: **620602** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	62	10	50.00	0	125	68.6	130			
Surr: DNOP	5.2		5.000		104	57.9	140			

Sample ID **LCS-15369** SampType: **LCS** TestCode: **EPA Method 8015D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **15369** RunNo: **21309**

Prep Date: **9/18/2014** Analysis Date: **9/19/2014** SeqNo: **622110** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.0		5.000		100	57.9	140			

Sample ID **MB-15369** SampType: **MBLK** TestCode: **EPA Method 8015D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **15369** RunNo: **21309**

Prep Date: **9/18/2014** Analysis Date: **9/19/2014** SeqNo: **622115** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.9		10.00		89.3	57.9	140			

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.
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#: 1409873

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID **MB-15378** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **15378** RunNo: **21342**

Prep Date: **9/18/2014** Analysis Date: **9/22/2014** SeqNo: **623292** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	940		1000		94.2	80	120			

Sample ID **LCS-15378** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **15378** RunNo: **21342**

Prep Date: **9/18/2014** Analysis Date: **9/22/2014** SeqNo: **623293** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	65.8	139			
Surr: BFB	1000		1000		101	80	120			

Sample ID **5ML RB** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **R21374** RunNo: **21374**

Prep Date: Analysis Date: **9/23/2014** SeqNo: **624891** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	930		1000		92.9	80	120			

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.
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#: 1409873

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID **MB-15378** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **15378** RunNo: **21342**

Prep Date: **9/18/2014** Analysis Date: **9/22/2014** SeqNo: **623326** 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	1.0		1.000		104	80	120			

Sample ID **LCS-15378** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **15378** RunNo: **21342**

Prep Date: **9/18/2014** Analysis Date: **9/22/2014** SeqNo: **623327** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.050	1.000	0	90.6	80	120			
Toluene	0.91	0.050	1.000	0	91.1	80	120			
Ethylbenzene	0.92	0.050	1.000	0	92.4	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.6	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409873

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID **mb-15378** SampType: **MBLK** TestCode: **EPA Method 8260B: TCLP Compounds**

Client ID: **PBS** Batch ID: **15378** RunNo: **21355**

Prep Date: **9/18/2014** Analysis Date: **9/20/2014** SeqNo: **623925** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
2-Butanone	ND	20								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	10								
Chloroform	ND	0.60								
1,4-Dichlorobenzene	ND	0.75								
1,1-Dichloroethene	ND	0.070								
Tetrachloroethene (PCE)	ND	0.070								
Trichloroethene (TCE)	ND	0.050								
Vinyl chloride	ND	0.020								
Surr: 1,2-Dichloroethane-d4	0.41		0.5000		82.2	70	130			
Surr: 4-Bromofluorobenzene	0.37		0.5000		74.2	70	130			
Surr: Dibromofluoromethane	0.42		0.5000		84.4	70	130			
Surr: Toluene-d8	0.47		0.5000		94.6	70	130			

Sample ID **lcs-15378** SampType: **LCS** TestCode: **EPA Method 8260B: TCLP Compounds**

Client ID: **LCSS** Batch ID: **15378** RunNo: **21355**

Prep Date: **9/18/2014** Analysis Date: **9/20/2014** SeqNo: **623926** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.050	1.000	0	96.0	70	130			
Chlorobenzene	1.0	0.50	1.000	0	101	70	130			
1,1-Dichloroethene	1.1	0.070	1.000	0	105	60.5	160			
Trichloroethene (TCE)	0.92	0.050	1.000	0	91.5	58.8	139			
Surr: 1,2-Dichloroethane-d4	0.41		0.5000		82.0	70	130			
Surr: 4-Bromofluorobenzene	0.42		0.5000		84.7	70	130			
Surr: Dibromofluoromethane	0.44		0.5000		88.1	70	130			
Surr: Toluene-d8	0.44		0.5000		87.5	70	130			

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.
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#: 1409873

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID **mb-15413** SampType: **MBLK** TestCode: **EPA Method 8270C TCLP**

Client ID: **PBS** Batch ID: **15413** RunNo: **21387**

Prep Date: **9/22/2014** Analysis Date: **9/23/2014** SeqNo: **624719** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
Phenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Surr: 2-Fluorophenol	0.16		0.2000		78.8	25	105			
Surr: Phenol-d5	0.14		0.2000		68.7	22.3	70.3			
Surr: 2,4,6-Tribromophenol	0.16		0.2000		79.7	30.4	134			
Surr: Nitrobenzene-d5	0.092		0.1000		91.6	54.8	128			
Surr: 2-Fluorobiphenyl	0.086		0.1000		85.6	53.3	122			
Surr: 4-Terphenyl-d14	0.090		0.1000		90.1	51.8	133			

Sample ID **lcs-15413** SampType: **LCS** TestCode: **EPA Method 8270C TCLP**

Client ID: **LCSS** Batch ID: **15413** RunNo: **21387**

Prep Date: **9/22/2014** Analysis Date: **9/23/2014** SeqNo: **624720** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.076	0.010	0.1000	0	75.9	52.2	95.7			
3+4-Methylphenol	0.17	0.010	0.2000	0	85.5	52.4	142			
2,4-Dinitrotoluene	0.067	0.010	0.1000	0	67.1	43.4	110			
Hexachlorobenzene	0.078	0.010	0.1000	0	78.1	43.6	88.4			
Hexachlorobutadiene	0.064	0.010	0.1000	0	63.6	38.6	88.4			
Hexachloroethane	0.074	0.010	0.1000	0	73.7	45.7	83.6			
Nitrobenzene	0.077	0.010	0.1000	0	77.1	51.9	112			
Pentachlorophenol	0.033	0.010	0.1000	0	33.1	15.2	81.5			
Pyridine	0.062	0.010	0.1000	0	61.9	11.2	95.1			
2,4,5-Trichlorophenol	0.067	0.010	0.1000	0	66.8	46.9	110			
2,4,6-Trichlorophenol	0.064	0.010	0.1000	0	64.3	36.1	111			
Cresols, Total	0.25	0.010	0.3000	0	82.3	30	136			
Surr: 2-Fluorophenol	0.14		0.2000		71.6	25	105			
Surr: Phenol-d5	0.14		0.2000		70.7	22.3	70.3			S

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.
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#: 1409873

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID **lcs-15413** SampType: **LCS** TestCode: **EPA Method 8270C TCLP**

Client ID: **LCSS** Batch ID: **15413** RunNo: **21387**

Prep Date: **9/22/2014** Analysis Date: **9/23/2014** SeqNo: **624720** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	0.11		0.2000		56.0	30.4	134			
Surr: Nitrobenzene-d5	0.077		0.1000		76.6	54.8	128			
Surr: 2-Fluorobiphenyl	0.074		0.1000		74.0	53.3	122			
Surr: 4-Terphenyl-d14	0.076		0.1000		75.5	51.8	133			

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.
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#: 1409873

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID **MB-15428** SampType: **MBLK** TestCode: **MERCURY, TCLP**

Client ID: **PBW** Batch ID: **15428** RunNo: **21367**

Prep Date: **9/22/2014** Analysis Date: **9/23/2014** SeqNo: **623963** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Sample ID **LCS-15428** SampType: **LCS** TestCode: **MERCURY, TCLP**

Client ID: **LCSW** Batch ID: **15428** RunNo: **21367**

Prep Date: **9/22/2014** Analysis Date: **9/23/2014** SeqNo: **623964** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	98.4	80	120			

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.
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#: 1409873

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID MB-15406 SampType: MBLK TestCode: EPA Method 6010B: TCLP Metals

Client ID: PBW Batch ID: 15406 RunNo: 21324

Prep Date: 9/19/2014 Analysis Date: 9/20/2014 SeqNo: 622314 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID LCS-15406 SampType: LCS TestCode: EPA Method 6010B: TCLP Metals

Client ID: LCSW Batch ID: 15406 RunNo: 21324

Prep Date: 9/19/2014 Analysis Date: 9/20/2014 SeqNo: 622315 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	109	80	120			
Barium	ND	100	0.5000	0	98.8	80	120			
Cadmium	ND	1.0	0.5000	0	103	80	120			
Chromium	ND	5.0	0.5000	0	97.5	80	120			
Lead	ND	5.0	0.5000	0	96.3	80	120			
Selenium	ND	1.0	0.5000	0	111	80	120			
Silver	ND	5.0	0.1000	0	104	80	120			

Sample ID 1409873-004AMS SampType: MS TestCode: EPA Method 6010B: TCLP Metals

Client ID: Box Area Location # Batch ID: 15406 RunNo: 21324

Prep Date: 9/19/2014 Analysis Date: 9/20/2014 SeqNo: 622320 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	109	75	125			
Barium	ND	100	0.5000	2.455	98.9	75	125			
Cadmium	ND	1.0	0.5000	0	103	75	125			
Chromium	ND	5.0	0.5000	0	95.7	75	125			
Lead	ND	5.0	0.5000	0.004490	94.5	75	125			
Selenium	ND	1.0	0.5000	0	108	75	125			
Silver	ND	5.0	0.1000	0	106	75	125			

Sample ID 1409873-004AMSD SampType: MSD TestCode: EPA Method 6010B: TCLP Metals

Client ID: Box Area Location # Batch ID: 15406 RunNo: 21324

Prep Date: 9/19/2014 Analysis Date: 9/20/2014 SeqNo: 622321 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	107	75	125	0	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.
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#: 1409873

24-Sep-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID **1409873-004AMSD** SampType: **MSD** TestCode: **EPA Method 6010B: TCLP Metals**

Client ID: **Box Area Location #** Batch ID: **15406** RunNo: **21324**

Prep Date: **9/19/2014** Analysis Date: **9/20/2014** SeqNo: **622321** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	100	0.5000	2.455	92.6	75	125	0	20	
Cadmium	ND	1.0	0.5000	0	102	75	125	0	20	
Chromium	ND	5.0	0.5000	0	94.4	75	125	0	20	
Lead	ND	5.0	0.5000	0.004490	93.1	75	125	0	20	
Selenium	ND	1.0	0.5000	0	106	75	125	0	20	
Silver	ND	5.0	0.1000	0	105	75	125	0	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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
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: 1409873 RcptNo: 1

Received by/date: MG 09/17/14

Logged By: Michelle Garcia 9/17/2014 4:32:00 PM Michelle Garcia

Completed By: Michelle Garcia 9/17/2014 6:13:10 PM Michelle Garcia

Reviewed By: 09/18/14

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? Courier

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? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
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? Yes ☑ No ☐
    (If no, notify customer for authorization.)

# 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:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western - Refining

Mailing Address: 92 GIANT CROSSING ROAD
Gallup NM 87301

Phone #: 505 722 3833
email or Fax#: 505 863 0930

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
☐ Other _____
☐ EDD (Type) _____

☐ Standard ☐ Rush _____

Project Name:

Excavation Underground Box Area

Project #:

North of Bullet Tanks

Project Manager:
Beck Larsen

Sampler: A.Dorsey / J. TSO / K.Sanchez

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

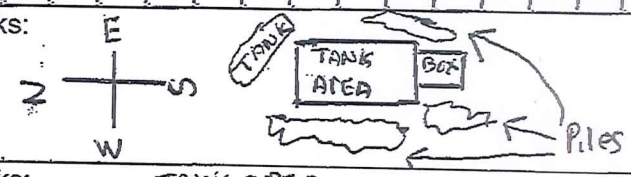
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

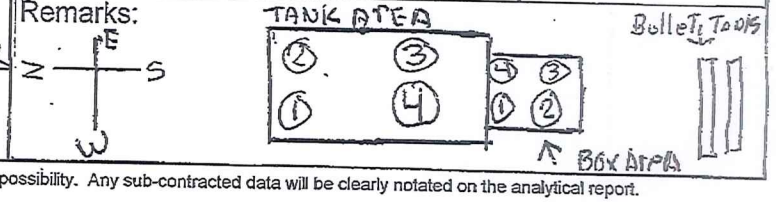
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1409873	BTEX (8021)B	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO/DRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) TCLP	8270 (Semi-VOA) TCLP	RCI	TCLP Metals			Air Bubbles (Y or N)
9/16/2014	12:50	Soil	Box Area Location # 1	9 oz - 3	N/A	-001	X		X	X						X	X	X	X			
9/16/2014	13:05	Soil	Box Area Location # 2	9 oz - 3	N/A	-002	X		X	X						X	X	X	X			
9/16/2014	13:20	Soil	Box Area Location # 3	9 oz - 3	N/A	-003	X		X	X						X	X	X	X			
9/16/2014	13:35	Soil	Box Area Location # 4	9 oz - 3	N/A	-004	X		X	X						X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
09-17-14	14:30	Alvin Dorsey	[signature]	09/17/14	16:32
9/17/14	16:32	[signature]	Received by:	Date	Time

Remarks:



Remarks:



If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Appendix A-5

Hall Environmental Analysis Laboratory, Inc. – November 25, 2014

Analytical Report No. 1411729

11/17/14

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

November 25, 2014

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

RE: Excavation Underground Box Area OrderNo.: 1411729

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory received 4 sample(s) on 11/18/2014 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 qualifers 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Box Area
Lab ID: 1411729-001 **Matrix:** SOIL

Client Sample ID: Box Area Location #A
Collection Date: 11/17/2014 11:45:00 AM
Received Date: 11/18/2014 4:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**BCN**
Diesel Range Organics (DRO)	340	10		mg/Kg	1	11/20/2014 3:09:42 PM	16454
Surr: DNOP	87.4	63.5-128		%REC	1	11/20/2014 3:09:42 PM	16454
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	250	50		mg/Kg	10	11/20/2014 2:47:17 PM	16461
Surr: BFB	122	80-120	S	%REC	10	11/20/2014 2:47:17 PM	16461
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	0.94	0.50		mg/Kg	10	11/20/2014 2:47:17 PM	16461
Toluene	3.9	0.50		mg/Kg	10	11/20/2014 2:47:17 PM	16461
Ethylbenzene	0.92	0.50		mg/Kg	10	11/20/2014 2:47:17 PM	16461
Xylenes, Total	6.3	1.0		mg/Kg	10	11/20/2014 2:47:17 PM	16461
Surr: 4-Bromofluorobenzene	107	80-120		%REC	10	11/20/2014 2:47:17 PM	16461
MERCURY, TCLP						Analyst:	**MMD**
Mercury	ND	0.020		mg/L	1	11/24/2014 2:02:44 PM	16533
EPA METHOD 6010B: TCLP METALS						Analyst:	**ELS**
Arsenic	ND	5.0		mg/L	1	11/22/2014 11:49:11 AM	16515
Barium	ND	100		mg/L	1	11/22/2014 11:49:11 AM	16515
Cadmium	ND	1.0		mg/L	1	11/22/2014 11:49:11 AM	16515
Chromium	ND	5.0		mg/L	1	11/22/2014 11:49:11 AM	16515
Lead	ND	5.0		mg/L	1	11/22/2014 11:49:11 AM	16515
Selenium	ND	1.0		mg/L	1	11/22/2014 11:49:11 AM	16515
Silver	ND	5.0		mg/L	1	11/22/2014 11:49:11 AM	16515
EPA METHOD 8270C TCLP						Analyst:	**DAM**
2-Methylphenol	ND	200		mg/L	1	11/24/2014 3:03:01 PM	16529
3+4-Methylphenol	ND	200		mg/L	1	11/24/2014 3:03:01 PM	16529
Phenol	ND	200		mg/L	1	11/24/2014 3:03:01 PM	16529
2,4-Dinitrotoluene	ND	0.13		mg/L	1	11/24/2014 3:03:01 PM	16529
Hexachlorobenzene	ND	0.13		mg/L	1	11/24/2014 3:03:01 PM	16529
Hexachlorobutadiene	ND	0.50		mg/L	1	11/24/2014 3:03:01 PM	16529
Hexachloroethane	ND	3.0		mg/L	1	11/24/2014 3:03:01 PM	16529
Nitrobenzene	ND	2.0		mg/L	1	11/24/2014 3:03:01 PM	16529
Pentachlorophenol	ND	100		mg/L	1	11/24/2014 3:03:01 PM	16529
Pyridine	ND	5.0		mg/L	1	11/24/2014 3:03:01 PM	16529
2,4,5-Trichlorophenol	ND	400		mg/L	1	11/24/2014 3:03:01 PM	16529
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	11/24/2014 3:03:01 PM	16529
Cresols, Total	ND	200		mg/L	1	11/24/2014 3:03:01 PM	16529
Surr: 2-Fluorophenol	70.0	25-105		%REC	1	11/24/2014 3:03:01 PM	16529
Surr: Phenol-d5	66.3	22.3-70.3		%REC	1	11/24/2014 3:03:01 PM	16529

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Box Area
Lab ID: 1411729-001 **Matrix:** SOIL

Client Sample ID: Box Area Location #A
Collection Date: 11/17/2014 11:45:00 AM
Received Date: 11/18/2014 4:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst:	**DAM**
Surr: 2,4,6-Tribromophenol	92.1	30.4-134		%REC	1	11/24/2014 3:03:01 PM	16529
Surr: Nitrobenzene-d5	94.3	54.8-128		%REC	1	11/24/2014 3:03:01 PM	16529
Surr: 2-Fluorobiphenyl	84.7	53.3-122		%REC	1	11/24/2014 3:03:01 PM	16529
Surr: 4-Terphenyl-d14	86.9	51.8-133		%REC	1	11/24/2014 3:03:01 PM	16529
VOLATILES BY 8260B/1311						Analyst:	**cadg**
Benzene	ND	0.50		mg/L	1	11/21/2014 11:06:37 PM	16505
2-Butanone	ND	200		mg/L	1	11/21/2014 11:06:37 PM	16505
Carbon Tetrachloride	ND	0.50		mg/L	1	11/21/2014 11:06:37 PM	16505
Chlorobenzene	ND	100		mg/L	1	11/21/2014 11:06:37 PM	16505
Chloroform	ND	6.0		mg/L	1	11/21/2014 11:06:37 PM	16505
1,4-Dichlorobenzene	ND	7.5		mg/L	1	11/21/2014 11:06:37 PM	16505
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	11/21/2014 11:06:37 PM	16505
1,1-Dichloroethene	ND	0.70		mg/L	1	11/21/2014 11:06:37 PM	16505
Hexachlorobutadiene	ND	0.50		mg/L	1	11/21/2014 11:06:37 PM	16505
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	11/21/2014 11:06:37 PM	16505
Trichloroethene (TCE)	ND	0.50		mg/L	1	11/21/2014 11:06:37 PM	16505
Vinyl chloride	ND	0.20		mg/L	1	11/21/2014 11:06:37 PM	16505
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	11/21/2014 11:06:37 PM	16505
Surr: 4-Bromofluorobenzene	86.0	70-130		%REC	1	11/21/2014 11:06:37 PM	16505
Surr: Dibromofluoromethane	100	70-130		%REC	1	11/21/2014 11:06:37 PM	16505
Surr: Toluene-d8	105	70-130		%REC	1	11/21/2014 11:06:37 PM	16505
EPA METHOD 418.1: TPH						Analyst:	**BCN**
Petroleum Hydrocarbons, TR	530	20		mg/Kg	1	11/24/2014	16463

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Box Area
Lab ID: 1411729-002 **Matrix:** SOIL

Client Sample ID: Box Area Location #B
Collection Date: 11/17/2014 12:00:00 PM
Received Date: 11/18/2014 4:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**BCN**
Diesel Range Organics (DRO)	300	9.9		mg/Kg	1	11/20/2014 3:33:28 PM	16454
Surr: DNOP	87.9	63.5-128		%REC	1	11/20/2014 3:33:28 PM	16454
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	240	25		mg/Kg	5	11/20/2014 3:15:54 PM	16461
Surr: BFB	158	80-120	S	%REC	5	11/20/2014 3:15:54 PM	16461
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	0.45	0.25		mg/Kg	5	11/20/2014 3:15:54 PM	16461
Toluene	6.2	0.25		mg/Kg	5	11/20/2014 3:15:54 PM	16461
Ethylbenzene	1.5	0.25		mg/Kg	5	11/20/2014 3:15:54 PM	16461
Xylenes, Total	11	0.50		mg/Kg	5	11/20/2014 3:15:54 PM	16461
Surr: 4-Bromofluorobenzene	113	80-120		%REC	5	11/20/2014 3:15:54 PM	16461
MERCURY, TCLP						Analyst:	**MMD**
Mercury	ND	0.020		mg/L	1	11/24/2014 2:04:33 PM	16533
EPA METHOD 6010B: TCLP METALS						Analyst:	**ELS**
Arsenic	ND	5.0		mg/L	1	11/22/2014 11:50:26 AM	16515
Barium	ND	100		mg/L	5	11/22/2014 12:04:16 PM	16515
Cadmium	ND	1.0		mg/L	1	11/22/2014 11:50:26 AM	16515
Chromium	ND	5.0		mg/L	1	11/22/2014 11:50:26 AM	16515
Lead	ND	5.0		mg/L	1	11/22/2014 11:50:26 AM	16515
Selenium	ND	1.0		mg/L	1	11/22/2014 11:50:26 AM	16515
Silver	ND	5.0		mg/L	1	11/22/2014 11:50:26 AM	16515
EPA METHOD 8270C TCLP						Analyst:	**DAM**
2-Methylphenol	ND	200		mg/L	1	11/24/2014 4:25:02 PM	16529
3+4-Methylphenol	ND	200		mg/L	1	11/24/2014 4:25:02 PM	16529
Phenol	ND	200		mg/L	1	11/24/2014 4:25:02 PM	16529
2,4-Dinitrotoluene	ND	0.13		mg/L	1	11/24/2014 4:25:02 PM	16529
Hexachlorobenzene	ND	0.13		mg/L	1	11/24/2014 4:25:02 PM	16529
Hexachlorobutadiene	ND	0.50		mg/L	1	11/24/2014 4:25:02 PM	16529
Hexachloroethane	ND	3.0		mg/L	1	11/24/2014 4:25:02 PM	16529
Nitrobenzene	ND	2.0		mg/L	1	11/24/2014 4:25:02 PM	16529
Pentachlorophenol	ND	100		mg/L	1	11/24/2014 4:25:02 PM	16529
Pyridine	ND	5.0		mg/L	1	11/24/2014 4:25:02 PM	16529
2,4,5-Trichlorophenol	ND	400		mg/L	1	11/24/2014 4:25:02 PM	16529
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	11/24/2014 4:25:02 PM	16529
Cresols, Total	ND	200		mg/L	1	11/24/2014 4:25:02 PM	16529
Surr: 2-Fluorophenol	69.6	25-105		%REC	1	11/24/2014 4:25:02 PM	16529
Surr: Phenol-d5	63.4	22.3-70.3		%REC	1	11/24/2014 4:25:02 PM	16529

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Box Area
Lab ID: 1411729-002 **Matrix:** SOIL

Client Sample ID: Box Area Location #B
Collection Date: 11/17/2014 12:00:00 PM
Received Date: 11/18/2014 4:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst:	**DAM**
Surr: 2,4,6-Tribromophenol	84.5	30.4-134		%REC	1	11/24/2014 4:25:02 PM	16529
Surr: Nitrobenzene-d5	88.6	54.8-128		%REC	1	11/24/2014 4:25:02 PM	16529
Surr: 2-Fluorobiphenyl	77.8	53.3-122		%REC	1	11/24/2014 4:25:02 PM	16529
Surr: 4-Terphenyl-d14	77.8	51.8-133		%REC	1	11/24/2014 4:25:02 PM	16529
VOLATILES BY 8260B/1311						Analyst:	**cadg**
Benzene	ND	0.50		mg/L	1	11/22/2014 1:46:58 AM	16505
2-Butanone	ND	200		mg/L	1	11/22/2014 1:46:58 AM	16505
Carbon Tetrachloride	ND	0.50		mg/L	1	11/22/2014 1:46:58 AM	16505
Chlorobenzene	ND	100		mg/L	1	11/22/2014 1:46:58 AM	16505
Chloroform	ND	6.0		mg/L	1	11/22/2014 1:46:58 AM	16505
1,4-Dichlorobenzene	ND	7.5		mg/L	1	11/22/2014 1:46:58 AM	16505
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	11/22/2014 1:46:58 AM	16505
1,1-Dichloroethene	ND	0.70		mg/L	1	11/22/2014 1:46:58 AM	16505
Hexachlorobutadiene	ND	0.50		mg/L	1	11/22/2014 1:46:58 AM	16505
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	11/22/2014 1:46:58 AM	16505
Trichloroethene (TCE)	ND	0.50		mg/L	1	11/22/2014 1:46:58 AM	16505
Vinyl chloride	ND	0.20		mg/L	1	11/22/2014 1:46:58 AM	16505
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	11/22/2014 1:46:58 AM	16505
Surr: 4-Bromofluorobenzene	109	70-130		%REC	1	11/22/2014 1:46:58 AM	16505
Surr: Dibromofluoromethane	101	70-130		%REC	1	11/22/2014 1:46:58 AM	16505
Surr: Toluene-d8	106	70-130		%REC	1	11/22/2014 1:46:58 AM	16505
EPA METHOD 418.1: TPH						Analyst:	**BCN**
Petroleum Hydrocarbons, TR	920	200		mg/Kg	10	11/24/2014	16463

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Box Area
Lab ID: 1411729-003 **Matrix:** SOIL

Client Sample ID: Box Area Location #C
Collection Date: 11/17/2014 12:25:00 PM
Received Date: 11/18/2014 4:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**BCN**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/20/2014 3:54:50 PM	16454
Surr: DNOP	87.2	63.5-128		%REC	1	11/20/2014 3:54:50 PM	16454
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/20/2014 4:41:54 PM	16461
Surr: BFB	98.6	80-120		%REC	1	11/20/2014 4:41:54 PM	16461
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.050		mg/Kg	1	11/20/2014 4:41:54 PM	16461
Toluene	ND	0.050		mg/Kg	1	11/20/2014 4:41:54 PM	16461
Ethylbenzene	ND	0.050		mg/Kg	1	11/20/2014 4:41:54 PM	16461
Xylenes, Total	ND	0.10		mg/Kg	1	11/20/2014 4:41:54 PM	16461
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	11/20/2014 4:41:54 PM	16461
MERCURY, TCLP						Analyst:	**MMD**
Mercury	ND	0.020		mg/L	1	11/24/2014 2:06:21 PM	16533
EPA METHOD 6010B: TCLP METALS						Analyst:	**ELS**
Arsenic	ND	5.0		mg/L	1	11/22/2014 11:51:40 AM	16515
Barium	ND	100		mg/L	1	11/22/2014 11:51:40 AM	16515
Cadmium	ND	1.0		mg/L	1	11/22/2014 11:51:40 AM	16515
Chromium	ND	5.0		mg/L	1	11/22/2014 11:51:40 AM	16515
Lead	ND	5.0		mg/L	1	11/22/2014 11:51:40 AM	16515
Selenium	ND	1.0		mg/L	1	11/22/2014 11:51:40 AM	16515
Silver	ND	5.0		mg/L	1	11/22/2014 11:51:40 AM	16515
EPA METHOD 8270C TCLP						Analyst:	**DAM**
2-Methylphenol	ND	200		mg/L	1	11/25/2014 1:20:06 PM	16529
3+4-Methylphenol	ND	200		mg/L	1	11/25/2014 1:20:06 PM	16529
Phenol	ND	200		mg/L	1	11/25/2014 1:20:06 PM	16529
2,4-Dinitrotoluene	ND	0.13		mg/L	1	11/24/2014 4:52:15 PM	16529
Hexachlorobenzene	ND	0.13		mg/L	1	11/24/2014 4:52:15 PM	16529
Hexachlorobutadiene	ND	0.50		mg/L	1	11/24/2014 4:52:15 PM	16529
Hexachloroethane	ND	3.0		mg/L	1	11/24/2014 4:52:15 PM	16529
Nitrobenzene	ND	2.0		mg/L	1	11/24/2014 4:52:15 PM	16529
Pentachlorophenol	ND	100		mg/L	1	11/25/2014 1:20:06 PM	16529
Pyridine	ND	5.0		mg/L	1	11/24/2014 4:52:15 PM	16529
2,4,5-Trichlorophenol	ND	400		mg/L	1	11/25/2014 1:20:06 PM	16529
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	11/25/2014 1:20:06 PM	16529
Cresols, Total	ND	200		mg/L	1	11/25/2014 1:20:06 PM	16529
Surr: 2-Fluorophenol	40.2	25-105		%REC	1	11/25/2014 1:20:06 PM	16529
Surr: Phenol-d5	29.8	22.3-70.3		%REC	1	11/25/2014 1:20:06 PM	16529

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Box Area
Lab ID: 1411729-003 **Matrix:** SOIL

Client Sample ID: Box Area Location #C
Collection Date: 11/17/2014 12:25:00 PM
Received Date: 11/18/2014 4:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst:	**DAM**
Surr: 2,4,6-Tribromophenol	60.1	30.4-134		%REC	1	11/25/2014 1:20:06 PM	16529
Surr: Nitrobenzene-d5	89.5	54.8-128		%REC	1	11/24/2014 4:52:15 PM	16529
Surr: 2-Fluorobiphenyl	89.3	53.3-122		%REC	1	11/24/2014 4:52:15 PM	16529
Surr: 4-Terphenyl-d14	90.2	51.8-133		%REC	1	11/24/2014 4:52:15 PM	16529
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst:	**cadg**
Benzene	ND	0.50		ppm	10	11/22/2014 3:33:49 AM	16461
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	11/22/2014 3:33:49 AM	16461
2-Butanone	ND	200		ppm	10	11/22/2014 3:33:49 AM	16461
Carbon tetrachloride	ND	0.50		ppm	10	11/22/2014 3:33:49 AM	16461
Chlorobenzene	ND	100		ppm	10	11/22/2014 3:33:49 AM	16461
Chloroform	ND	6.0		ppm	10	11/22/2014 3:33:49 AM	16461
1,4-Dichlorobenzene	ND	7.5		ppm	10	11/22/2014 3:33:49 AM	16461
1,1-Dichloroethene	ND	0.70		ppm	10	11/22/2014 3:33:49 AM	16461
Tetrachloroethene (PCE)	ND	0.70		ppm	10	11/22/2014 3:33:49 AM	16461
Trichloroethene (TCE)	ND	0.50		ppm	10	11/22/2014 3:33:49 AM	16461
Vinyl chloride	ND	0.20		ppm	10	11/22/2014 3:33:49 AM	16461
Surr: 1,2-Dichloroethane-d4	95.4	70-130		%REC	10	11/22/2014 3:33:49 AM	16461
Surr: 4-Bromofluorobenzene	115	70-130		%REC	10	11/22/2014 3:33:49 AM	16461
Surr: Dibromofluoromethane	82.4	70-130		%REC	10	11/22/2014 3:33:49 AM	16461
Surr: Toluene-d8	99.4	70-130		%REC	10	11/22/2014 3:33:49 AM	16461
EPA METHOD 418.1: TPH						Analyst:	**BCN**
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	11/24/2014	16463

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Box Area
Lab ID: 1411729-004 **Matrix:** SOIL

Client Sample ID: Box Area Location #D
Collection Date: 11/17/2014 12:35:00 PM
Received Date: 11/18/2014 4:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**BCN**
Diesel Range Organics (DRO)	170	10		mg/Kg	1	11/20/2014 4:16:49 PM	16454
Surr: DNOP	84.0	63.5-128		%REC	1	11/20/2014 4:16:49 PM	16454
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	1000	50		mg/Kg	10	11/20/2014 9:57:28 PM	16461
Surr: BFB	147	80-120	S	%REC	10	11/20/2014 9:57:28 PM	16461
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	3.5	0.50		mg/Kg	10	11/20/2014 9:57:28 PM	16461
Toluene	15	0.50		mg/Kg	10	11/20/2014 9:57:28 PM	16461
Ethylbenzene	3.2	0.50		mg/Kg	10	11/20/2014 9:57:28 PM	16461
Xylenes, Total	24	1.0		mg/Kg	10	11/20/2014 9:57:28 PM	16461
Surr: 4-Bromofluorobenzene	112	80-120		%REC	10	11/20/2014 9:57:28 PM	16461
MERCURY, TCLP						Analyst:	**MMD**
Mercury	ND	0.020		mg/L	1	11/24/2014 2:11:55 PM	16533
EPA METHOD 6010B: TCLP METALS						Analyst:	**ELS**
Arsenic	ND	5.0		mg/L	1	11/22/2014 11:52:55 AM	16515
Barium	ND	100		mg/L	1	11/22/2014 11:52:55 AM	16515
Cadmium	ND	1.0		mg/L	1	11/22/2014 11:52:55 AM	16515
Chromium	ND	5.0		mg/L	1	11/22/2014 11:52:55 AM	16515
Lead	ND	5.0		mg/L	1	11/22/2014 11:52:55 AM	16515
Selenium	ND	1.0		mg/L	1	11/22/2014 11:52:55 AM	16515
Silver	ND	5.0		mg/L	1	11/22/2014 11:52:55 AM	16515
EPA METHOD 8270C TCLP						Analyst:	**DAM**
2-Methylphenol	ND	200		mg/L	1	11/24/2014 5:19:28 PM	16529
3+4-Methylphenol	ND	200		mg/L	1	11/24/2014 5:19:28 PM	16529
Phenol	ND	200		mg/L	1	11/24/2014 5:19:28 PM	16529
2,4-Dinitrotoluene	ND	0.13		mg/L	1	11/24/2014 5:19:28 PM	16529
Hexachlorobenzene	ND	0.13		mg/L	1	11/24/2014 5:19:28 PM	16529
Hexachlorobutadiene	ND	0.50		mg/L	1	11/24/2014 5:19:28 PM	16529
Hexachloroethane	ND	3.0		mg/L	1	11/24/2014 5:19:28 PM	16529
Nitrobenzene	ND	2.0		mg/L	1	11/24/2014 5:19:28 PM	16529
Pentachlorophenol	ND	100		mg/L	1	11/24/2014 5:19:28 PM	16529
Pyridine	ND	5.0		mg/L	1	11/24/2014 5:19:28 PM	16529
2,4,5-Trichlorophenol	ND	400		mg/L	1	11/24/2014 5:19:28 PM	16529
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	11/24/2014 5:19:28 PM	16529
Cresols, Total	ND	200		mg/L	1	11/24/2014 5:19:28 PM	16529
Surr: 2-Fluorophenol	73.0	25-105		%REC	1	11/24/2014 5:19:28 PM	16529
Surr: Phenol-d5	68.4	22.3-70.3		%REC	1	11/24/2014 5:19:28 PM	16529

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Excavation Underground Box Area
Lab ID: 1411729-004 **Matrix:** SOIL

Client Sample ID: Box Area Location #D
Collection Date: 11/17/2014 12:35:00 PM
Received Date: 11/18/2014 4:15:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Surr: 2,4,6-Tribromophenol	94.2	30.4-134		%REC	1	11/24/2014 5:19:28 PM	16529
Surr: Nitrobenzene-d5	90.2	54.8-128		%REC	1	11/24/2014 5:19:28 PM	16529
Surr: 2-Fluorobiphenyl	78.8	53.3-122		%REC	1	11/24/2014 5:19:28 PM	16529
Surr: 4-Terphenyl-d14	84.0	51.8-133		%REC	1	11/24/2014 5:19:28 PM	16529
VOLATILES BY 8260B/1311						Analyst: **cadg**	
Benzene	ND	0.50		mg/L	1	11/22/2014 2:13:36 AM	16505
2-Butanone	ND	200		mg/L	1	11/22/2014 2:13:36 AM	16505
Carbon Tetrachloride	ND	0.50		mg/L	1	11/22/2014 2:13:36 AM	16505
Chlorobenzene	ND	100		mg/L	1	11/22/2014 2:13:36 AM	16505
Chloroform	ND	6.0		mg/L	1	11/22/2014 2:13:36 AM	16505
1,4-Dichlorobenzene	ND	7.5		mg/L	1	11/22/2014 2:13:36 AM	16505
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	11/22/2014 2:13:36 AM	16505
1,1-Dichloroethene	ND	0.70		mg/L	1	11/22/2014 2:13:36 AM	16505
Hexachlorobutadiene	ND	0.50		mg/L	1	11/22/2014 2:13:36 AM	16505
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	11/22/2014 2:13:36 AM	16505
Trichloroethene (TCE)	ND	0.50		mg/L	1	11/22/2014 2:13:36 AM	16505
Vinyl chloride	ND	0.20		mg/L	1	11/22/2014 2:13:36 AM	16505
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	11/22/2014 2:13:36 AM	16505
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	11/22/2014 2:13:36 AM	16505
Surr: Dibromofluoromethane	96.7	70-130		%REC	1	11/22/2014 2:13:36 AM	16505
Surr: Toluene-d8	99.8	70-130		%REC	1	11/22/2014 2:13:36 AM	16505
EPA METHOD 418.1: TPH						Analyst: **BCN**	
Petroleum Hydrocarbons, TR	380	20		mg/Kg	1	11/24/2014	16463

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Anatek Labs, Inc.

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

Batch #: 141120033
Project Name: 1411729

Analytical Results Report

Sample Number 141120033-001 **Sampling Date** 11/17/2014 **Date/Time Received** 11/20/2014 12:45 PM
Client Sample ID 1411729-001B / BOX AREA LOCATION #A **Sampling Time** 1:45 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	11/24/2014	CRW	SW846 CH7	
Ignitability	Negative			11/24/2014	JWC	EPA 1030	
pH	7.81	ph Units		11/21/2014	KJS	EPA 9045	
Reactive sulfide	37.1	mg/kg	12.4	11/24/2014	HSW	SW846 CH7	

Sample Number 141120033-002 **Sampling Date** 11/17/2014 **Date/Time Received** 11/20/2014 12:45 PM
Client Sample ID 1411729-002B / BOX AREA LOCATION #B **Sampling Time** 12:00 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	11/24/2014	CRW	SW846 CH7	
Ignitability	Negative			11/24/2014	JWC	EPA 1030	
pH	7.52	ph Units		11/21/2014	KJS	EPA 9045	
Reactive sulfide	34.0	mg/kg	12.2	11/24/2014	HSW	SW846 CH7	

Sample Number 141120033-003 **Sampling Date** 11/17/2014 **Date/Time Received** 11/20/2014 12:45 PM
Client Sample ID 1411729-003B / BOX AREA LOCATION #C **Sampling Time** 12:25 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	11/24/2014	CRW	SW846 CH7	
Ignitability	Negative			11/24/2014	JWC	EPA 1030	
pH	9.08	ph Units		11/21/2014	KJS	EPA 9045	
Reactive sulfide	19.8	mg/kg	12.4	11/24/2014	HSW	SW846 CH7	

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0026; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

Anatek Labs, Inc.

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

Batch #: 141120033
Project Name: 1411729

Analytical Results Report
Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Reactive sulfide	0.180	mg/kg	0.2	90.0	80-120	11/24/2014	11/24/2014
Cyanide (reactive)	0.531	mg/kg	0.5	106.2	70-130	11/24/2014	11/24/2014

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
141120033-001	Reactive sulfide	37.1	56.8	mg/kg	24.7	79.8	70-130	11/24/2014	11/24/2014
141120033-001	Cyanide (reactive)	ND	10.4	mg/kg	12.3	84.6	70-130	11/24/2014	11/24/2014

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide (reactive)	10.1	mg/kg	12.3	82.1	2.9	0-25	11/24/2014	11/24/2014

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide (reactive)	ND	mg/Kg	1	11/24/2014	11/24/2014
Reactive sulfide	ND	mg/kg	10	11/24/2014	11/24/2014

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; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

Anatek Labs, Inc.

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

Batch #: 141120033
Project Name: 1411729

Analytical Results Report

Sample Number 141120033-004 **Sampling Date** 11/17/2014 **Date/Time Received** 11/20/2014 12:45 PM
Client Sample ID 1411729-004B / BOX AREA LOCATION #D **Sampling Time** 12:35 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	11/24/2014	CRW	SW846 CH7	
Ignitability	Negative			11/24/2014	JWC	EPA 1030	
pH	8.61	ph Units		11/21/2014	KJS	EPA 9045	
Reactive sulfide	26.7	mg/kg	12.2	11/24/2014	HSW	SW846 CH7	

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.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411729

25-Nov-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID **MB-16463** SampType: **MBLK** TestCode: **EPA Method 418.1: TPH**

Client ID: **PBS** Batch ID: **16463** RunNo: **22737**

Prep Date: **11/19/2014** Analysis Date: **11/24/2014** SeqNo: **670894** 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-16463** SampType: **LCS** TestCode: **EPA Method 418.1: TPH**

Client ID: **LCSS** Batch ID: **16463** RunNo: **22737**

Prep Date: **11/19/2014** Analysis Date: **11/24/2014** SeqNo: **670895** 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	102	80	120			

Sample ID **LCSD-16463** SampType: **LCSD** TestCode: **EPA Method 418.1: TPH**

Client ID: **LCSS02** Batch ID: **16463** RunNo: **22737**

Prep Date: **11/19/2014** Analysis Date: **11/24/2014** SeqNo: **670896** 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	1.50	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.
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#: 1411729

25-Nov-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID **MB-16454** SampType: **MBLK** TestCode: **EPA Method 8015D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **16454** RunNo: **22625**

Prep Date: **11/19/2014** Analysis Date: **11/19/2014** SeqNo: **667375** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	7.4		10.00		73.6	63.5	128			

Sample ID **LCS-16454** SampType: **LCS** TestCode: **EPA Method 8015D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **16454** RunNo: **22625**

Prep Date: **11/19/2014** Analysis Date: **11/19/2014** SeqNo: **667464** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.8	68.6	130			
Surr: DNOP	4.2		5.000		83.4	63.5	128			

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.
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#: 1411729

25-Nov-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID **MB-16461** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **16461** RunNo: **22668**

Prep Date: **11/19/2014** Analysis Date: **11/20/2014** SeqNo: **668846** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		89.1	80	120			

Sample ID **LCS-16461** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **16461** RunNo: **22668**

Prep Date: **11/19/2014** Analysis Date: **11/20/2014** SeqNo: **668849** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.8	65.8	139			
Surr: BFB	1000		1000		99.6	80	120			

Sample ID **1411729-003AMS** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **Box Area Location #** Batch ID: **16461** RunNo: **22668**

Prep Date: **11/19/2014** Analysis Date: **11/20/2014** SeqNo: **668853** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	24.90	3.230	78.7	71.8	132			
Surr: BFB	1000		996.0		104	80	120			

Sample ID **1411729-003AMSD** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **Box Area Location #** Batch ID: **16461** RunNo: **22668**

Prep Date: **11/19/2014** Analysis Date: **11/20/2014** SeqNo: **668854** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	34	5.0	24.90	3.230	123	71.8	132	39.0	20	R
Surr: BFB	1100		996.0		115	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.
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#: 1411729

25-Nov-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID **MB-16461** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **16461** RunNo: **22668**

Prep Date: **11/19/2014** Analysis Date: **11/20/2014** SeqNo: **668869** 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-16461** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **16461** RunNo: **22668**

Prep Date: **11/19/2014** Analysis Date: **11/20/2014** SeqNo: **668870** 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	104	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID **1411729-002AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **Box Area Location #** Batch ID: **16461** RunNo: **22668**

Prep Date: **11/19/2014** Analysis Date: **11/20/2014** SeqNo: **668873** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.6	0.25	0.9980	0.4538	113	77.4	142			
Toluene	9.9	0.25	0.9980	6.152	376	77	132			S
Ethylbenzene	3.5	0.25	0.9980	1.493	204	77.6	134			S
Xylenes, Total	20	0.50	2.994	10.82	311	77.4	132			S
Surr: 4-Bromofluorobenzene	5.9		4.990		118	80	120			

Sample ID **1411729-002AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **Box Area Location #** Batch ID: **16461** RunNo: **22668**

Prep Date: **11/19/2014** Analysis Date: **11/20/2014** SeqNo: **668874** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.6	0.25	0.9980	0.4538	118	77.4	142	3.49	20	
Toluene	6.0	0.25	0.9980	6.152	-12.2	77	132	48.6	20	RS
Ethylbenzene	2.8	0.25	0.9980	1.493	135	77.6	134	21.5	20	RS
Xylenes, Total	15	0.50	2.994	10.82	135	77.4	132	30.3	20	RS
Surr: 4-Bromofluorobenzene	5.7		4.990		115	80	120	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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411729

25-Nov-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID **mb-16461** SampType: **MBLK** TestCode: **EPA Method 8260B: TCLP Compounds**

Client ID: **PBS** Batch ID: **16461** RunNo: **22714**

Prep Date: **11/19/2014** Analysis Date: **11/22/2014** SeqNo: **669932** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
2-Butanone	ND	20								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	10								
Chloroform	ND	0.60								
1,4-Dichlorobenzene	ND	0.75								
1,1-Dichloroethene	ND	0.070								
Tetrachloroethene (PCE)	ND	0.070								
Trichloroethene (TCE)	ND	0.050								
Vinyl chloride	ND	0.020								
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		97.8	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		99.1	70	130			
Surr: Toluene-d8	0.46		0.5000		92.3	70	130			

Sample ID **lcs-16461** SampType: **LCS** TestCode: **EPA Method 8260B: TCLP Compounds**

Client ID: **LCSS** Batch ID: **16461** RunNo: **22714**

Prep Date: **11/19/2014** Analysis Date: **11/22/2014** SeqNo: **669933** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	101	70	130			
Chlorobenzene	0.93	0.10	1.000	0	92.9	70	130			
1,1-Dichloroethene	0.93	0.070	1.000	0	93.4	60.5	160			
Trichloroethene (TCE)	0.84	0.050	1.000	0	83.8	58.8	139			
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.47		0.5000		93.7	70	130			

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.
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#: 1411729

25-Nov-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID **mb-16505** SampType: **MBLK** TestCode: **Volatiles by 8260B/1311**

Client ID: **PBS** Batch ID: **16505** RunNo: **22714**

Prep Date: **11/20/2014** Analysis Date: **11/21/2014** SeqNo: **669969** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.50								
2-Butanone	ND	200								
Carbon Tetrachloride	ND	0.50								
Chlorobenzene	ND	100								
Chloroform	ND	6.0								
1,4-Dichlorobenzene	ND	7.5								
1,2-Dichloroethane (EDC)	ND	0.50								
1,1-Dichloroethene	ND	0.70								
Hexachlorobutadiene	ND	0.50								
Tetrachloroethene (PCE)	ND	0.70								
Trichloroethene (TCE)	ND	0.50								
Vinyl chloride	ND	0.20								
Surr: 1,2-Dichloroethane-d4	0.20		0.2000		99.2	70	130			
Surr: 4-Bromofluorobenzene	0.26		0.2000		128	70	130			
Surr: Dibromofluoromethane	0.19		0.2000		96.4	70	130			
Surr: Toluene-d8	0.21		0.2000		106	70	130			

Sample ID **lcs-16505** SampType: **LCS** TestCode: **Volatiles by 8260B/1311**

Client ID: **LCSS** Batch ID: **16505** RunNo: **22714**

Prep Date: **11/20/2014** Analysis Date: **11/21/2014** SeqNo: **669970** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.41	0.10	0.4000	0	102	51.1	171			
Chlorobenzene	0.37	0.10	0.4000	0	93.3	36.1	191			
1,1-Dichloroethene	0.36	0.10	0.4000	0	89.2	49.1	162			
Trichloroethene (TCE)	0.35	0.10	0.4000	0	86.4	41.2	166			
Surr: 1,2-Dichloroethane-d4	0.20		0.2000		98.8	70	130			
Surr: 4-Bromofluorobenzene	0.26		0.2000		129	70	130			
Surr: Dibromofluoromethane	0.18		0.2000		91.9	70	130			
Surr: Toluene-d8	0.21		0.2000		103	70	130			

Sample ID **1411729-001ams** SampType: **MS** TestCode: **Volatiles by 8260B/1311**

Client ID: **Box Area Location #** Batch ID: **16505** RunNo: **22714**

Prep Date: **11/20/2014** Analysis Date: **11/21/2014** SeqNo: **669973** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.52	0.10	0.3995	0.1294	97.9	51.1	171			
Chlorobenzene	0.40	0.10	0.3995	0	100	36.1	191			
1,1-Dichloroethene	0.37	0.10	0.3995	0	91.5	49.1	162			
Trichloroethene (TCE)	0.36	0.10	0.3995	0	90.6	41.2	166			

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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411729

25-Nov-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID **1411729-001ams** SampType: **MS** TestCode: **Volatiles by 8260B/1311**

Client ID: **Box Area Location #** Batch ID: **16505** RunNo: **22714**

Prep Date: **11/20/2014** Analysis Date: **11/21/2014** SeqNo: **669973** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.20		0.1998		101	70	130			
Surr: 4-Bromofluorobenzene	0.17		0.1998		85.3	70	130			
Surr: Dibromofluoromethane	0.19		0.1998		93.4	70	130			
Surr: Toluene-d8	0.20		0.1998		102	70	130			

Sample ID **1411729-001amsd** SampType: **MSD** TestCode: **Volatiles by 8260B/1311**

Client ID: **Box Area Location #** Batch ID: **16505** RunNo: **22714**

Prep Date: **11/20/2014** Analysis Date: **11/22/2014** SeqNo: **669974** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.50	0.10	0.3995	0.1294	91.9	51.1	171	4.75	20	
Chlorobenzene	0.39	0.10	0.3995	0	98.0	36.1	191	2.47	20	
1,1-Dichloroethene	0.33	0.10	0.3995	0	82.4	49.1	162	10.5	20	
Trichloroethene (TCE)	0.32	0.10	0.3995	0	79.9	41.2	166	12.6	20	
Surr: 1,2-Dichloroethane-d4	0.19		0.1998		94.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.16		0.1998		81.4	70	130	0	0	
Surr: Dibromofluoromethane	0.18		0.1998		88.7	70	130	0	0	
Surr: Toluene-d8	0.20		0.1998		101	70	130	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.
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#: 1411729

25-Nov-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID **mb-16529** SampType: **MBLK** TestCode: **EPA Method 8270C TCLP**

Client ID: **PBS** Batch ID: **16529** RunNo: **22768**

Prep Date: **11/23/2014** Analysis Date: **11/24/2014** SeqNo: **671898** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
Phenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Surr: 2-Fluorophenol	0.17		0.2000		87.2	25	105			
Surr: Phenol-d5	0.18		0.2000		90.3	22.3	70.3			S
Surr: 2,4,6-Tribromophenol	0.19		0.2000		96.7	30.4	134			
Surr: Nitrobenzene-d5	0.092		0.1000		92.1	54.8	128			
Surr: 2-Fluorobiphenyl	0.089		0.1000		88.6	53.3	122			
Surr: 4-Terphenyl-d14	0.093		0.1000		93.1	51.8	133			

Sample ID **lcs-16529** SampType: **LCS** TestCode: **EPA Method 8270C TCLP**

Client ID: **LCSS** Batch ID: **16529** RunNo: **22768**

Prep Date: **11/23/2014** Analysis Date: **11/24/2014** SeqNo: **671901** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.073	0.010	0.1000	0	72.8	52.2	95.7			
3+4-Methylphenol	0.19	0.010	0.2000	0	97.0	52.4	142			
2,4-Dinitrotoluene	0.070	0.010	0.1000	0	70.0	43.4	110			
Hexachlorobenzene	0.081	0.010	0.1000	0	80.7	43.6	88.4			
Hexachlorobutadiene	0.069	0.010	0.1000	0	69.2	38.6	88.4			
Hexachloroethane	0.075	0.010	0.1000	0	74.5	45.7	83.6			
Nitrobenzene	0.068	0.010	0.1000	0	67.6	51.9	112			
Pentachlorophenol	0.065	0.010	0.1000	0	65.4	15.2	81.5			
Pyridine	0.072	0.010	0.1000	0	72.0	11.2	95.1			
2,4,5-Trichlorophenol	0.085	0.010	0.1000	0	84.7	46.9	110			
2,4,6-Trichlorophenol	0.082	0.010	0.1000	0	81.8	36.1	111			
Cresols, Total	0.27	0.010	0.3000	0	88.9	30	136			
Surr: 2-Fluorophenol	0.14		0.2000		69.3	25	105			
Surr: Phenol-d5	0.14		0.2000		72.1	22.3	70.3			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
- S Spike Recovery 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.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411729

25-Nov-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID **lcs-16529** SampType: **LCS** TestCode: **EPA Method 8270C TCLP**

Client ID: **LCSS** Batch ID: **16529** RunNo: **22768**

Prep Date: **11/23/2014** Analysis Date: **11/24/2014** SeqNo: **671901** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	0.17		0.2000		84.2	30.4	134			
Surr: Nitrobenzene-d5	0.077		0.1000		77.0	54.8	128			
Surr: 2-Fluorobiphenyl	0.072		0.1000		72.2	53.3	122			
Surr: 4-Terphenyl-d14	0.083		0.1000		82.9	51.8	133			

Sample ID **1411729-001Ams** SampType: **MS** TestCode: **EPA Method 8270C TCLP**

Client ID: **Box Area Location #** Batch ID: **16529** RunNo: **22768**

Prep Date: **11/23/2014** Analysis Date: **11/24/2014** SeqNo: **671920** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.073	0.010	0.1000	0	72.9	43.1	114			
3+4-Methylphenol	0.19	0.010	0.2000	0	93.5	37.8	128			
2,4-Dinitrotoluene	0.069	0.010	0.1000	0	69.3	36.5	125			
Hexachlorobenzene	0.089	0.010	0.1000	0	89.0	41.4	108			
Hexachlorobutadiene	0.064	0.010	0.1000	0	64.2	30.4	101			
Hexachloroethane	0.069	0.010	0.1000	0	68.7	37.3	115			
Nitrobenzene	0.070	0.010	0.1000	0	69.8	40.2	132			
Pentachlorophenol	0.031	0.010	0.1000	0	31.1	8.72	103			
Pyridine	0.063	0.010	0.1000	0	62.8	9.36	106			
2,4,5-Trichlorophenol	0.080	0.010	0.1000	0	79.8	16.5	123			
2,4,6-Trichlorophenol	0.069	0.010	0.1000	0	69.1	11.3	117			
Cresols, Total	0.26	0.010	0.3000	0	86.7	23.2	151			
Surr: 2-Fluorophenol	0.10		0.2000		52.1	25	105			
Surr: Phenol-d5	0.11		0.2000		54.7	22.3	70.3			
Surr: 2,4,6-Tribromophenol	0.14		0.2000		71.8	30.4	134			
Surr: Nitrobenzene-d5	0.072		0.1000		71.6	54.8	128			
Surr: 2-Fluorobiphenyl	0.068		0.1000		67.5	53.3	122			
Surr: 4-Terphenyl-d14	0.078		0.1000		78.5	51.8	133			

Sample ID **1411729-001Amsd** SampType: **MSD** TestCode: **EPA Method 8270C TCLP**

Client ID: **Box Area Location #** Batch ID: **16529** RunNo: **22768**

Prep Date: **11/23/2014** Analysis Date: **11/24/2014** SeqNo: **671925** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.076	0.010	0.1000	0	75.6	43.1	114	3.64	28.4	
3+4-Methylphenol	0.20	0.010	0.2000	0	99.2	37.8	128	5.84	29.4	
2,4-Dinitrotoluene	0.074	0.010	0.1000	0	74.1	36.5	125	6.75	24.7	
Hexachlorobenzene	0.093	0.010	0.1000	0	93.3	41.4	108	4.74	20	
Hexachlorobutadiene	0.067	0.010	0.1000	0	67.2	30.4	101	4.63	29	
Hexachloroethane	0.071	0.010	0.1000	0	70.5	37.3	115	2.59	25.2	

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.
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#: 1411729

25-Nov-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID **1411729-001Amsd** SampType: **MSD** TestCode: **EPA Method 8270C TCLP**

Client ID: **Box Area Location #** Batch ID: **16529** RunNo: **22768**

Prep Date: **11/23/2014** Analysis Date: **11/24/2014** SeqNo: **671925** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrobenzene	0.070	0.010	0.1000	0	69.6	40.2	132	0.258	26.9	
Pentachlorophenol	0.049	0.010	0.1000	0	48.6	8.72	103	43.8	59.2	
Pyridine	0.066	0.010	0.1000	0	66.2	9.36	106	5.21	48	
2,4,5-Trichlorophenol	0.087	0.010	0.1000	0	87.1	16.5	123	8.75	70.8	
2,4,6-Trichlorophenol	0.074	0.010	0.1000	0	74.5	11.3	117	7.49	78	
Cresols, Total	0.27	0.010	0.3000	0	91.3	23.2	151	5.23	30.8	
Surr: 2-Fluorophenol	0.11		0.2000		56.1	25	105	0	0	
Surr: Phenol-d5	0.11		0.2000		57.2	22.3	70.3	0	0	
Surr: 2,4,6-Tribromophenol	0.18		0.2000		88.4	30.4	134	0	0	
Surr: Nitrobenzene-d5	0.074		0.1000		74.3	54.8	128	0	0	
Surr: 2-Fluorobiphenyl	0.072		0.1000		71.6	53.3	122	0	0	
Surr: 4-Terphenyl-d14	0.091		0.1000		91.0	51.8	133	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.
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#: 1411729

25-Nov-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID	MB-16533	SampType:	MBLK		TestCode:	MERCURY, TCLP					
Client ID:	PBW	Batch ID:	16533		RunNo:	22751					
Prep Date:	11/24/2014	Analysis Date:	11/24/2014		SeqNo:	671290	Units:	mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		ND	0.020								

Sample ID	LCS-16533	SampType:	LCS		TestCode:	MERCURY, TCLP					
Client ID:	LCSW	Batch ID:	16533		RunNo:	22751					
Prep Date:	11/24/2014	Analysis Date:	11/24/2014		SeqNo:	671291	Units:	mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		ND	0.020	0.005000	0	110	80	120			

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.
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#: 1411729

25-Nov-14

Client: Western Refining Southwest, Gallup

Project: Excavation Underground Box Area

Sample ID **MB-16515** SampType: **MBLK** TestCode: **EPA Method 6010B: TCLP Metals**

Client ID: **PBW** Batch ID: **16515** RunNo: **22718**

Prep Date: **11/21/2014** Analysis Date: **11/22/2014** SeqNo: **670181** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID **LCS-16515** SampType: **LCS** TestCode: **EPA Method 6010B: TCLP Metals**

Client ID: **LCSW** Batch ID: **16515** RunNo: **22718**

Prep Date: **11/21/2014** Analysis Date: **11/22/2014** SeqNo: **670182** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	106	80	120			
Barium	ND	100	0.5000	0	98.3	80	120			
Cadmium	ND	1.0	0.5000	0	103	80	120			
Chromium	ND	5.0	0.5000	0	97.5	80	120			
Lead	ND	5.0	0.5000	0	95.1	80	120			
Selenium	ND	1.0	0.5000	0	106	80	120			
Silver	ND	5.0	0.1000	0	104	80	120			

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.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
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: **1411729** RcptNo: **1**

Received by/date: 11/18/14

Logged By: **Ashley Gallegos** **11/18/2014 4:15:00 PM**

Completed By: **Ashley Gallegos** **11/18/2014 4:54:09 PM**

Reviewed By: CS 11/19/14

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? Courier

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? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
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? Yes ☑ No ☐
    (If no, notify customer for authorization.)

# 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:

18. **Cooler Information**

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

Chain-of-Custody Record

Client: Western - Refining

Mailing Address: 92 GIANT CROSSING ROAD

Gallup NM 87301

Phone #: 505 722 3833

email or Fax#: 505 863 0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

☐ Other _____

☐ EDD (Type) _____

☐ Standard ☒ Rush _____

Project Name:

Excavation Underground Box Area

Project #:

North of Bullet Tanks

Project Manager:

Beck Larsen

Sampler: A.Dorsey / J. TSO / K.Sanchez

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

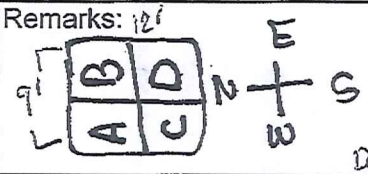
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1411729	BTEX (8021)B	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO/DRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) TCLP	8270 (Semi-VOA) TCLP	RCI	TCLP Metals			Air Bubbles (Y or N)
11/17/2014	11:45	Soil	Box Area Location # A	9 oz - 2	N/A	-001	X		X	X						X	X	X	X			
11/17/2014	12:00	Soil	Box Area Location # B	9 oz - 2	N/A	-002	X		X	X						X	X	X	X			
11/17/2014	12:25	Soil	Box Area Location # C	9 oz - 2	N/A	-003	X		X	X						X	X	X	X			
11/17/2014	12:35	Soil	Box Area Location # D	9 oz - 2	N/A	-004	X		X	X						X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date Time
11-18-14	14:00	Alvin Dorsey	[signature]	11-18-14 2:00
	Time:	Relinquished by:	Received by:	Date Time
			[signature]	11/18/14 1615

Remarks: 12'



DEPTH 6'

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

11-18-14 1615 [signature]

Appendix A-6

Hall Environmental Analysis Laboratory, Inc. –

April 24, 2015

Analytical Report No. 1504856

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

April 24, 2015

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

RE: Excavation of Underground Tank Area-Confirmation Samples OrderNo.: 1504856

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/20/2015 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 qualifers 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1504856**
Date Reported: **4/24/2015**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Box Area Location #A
Project: Excavation of Underground Tank Area-C
Collection Date: 4/17/2015 11:45:00 AM
Lab ID: 1504856-001 **Matrix:** SLUDGE **Received Date:** 4/20/2015 4:25:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**KJH**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/22/2015 6:51:39 PM	18786
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/22/2015 6:51:39 PM	18786
Surr: DNOP	94.0	57.9-140		%REC	1	4/22/2015 6:51:39 PM	18786
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/22/2015 4:03:10 PM	18803
Surr: BFB	93.8	80-120		%REC	1	4/22/2015 4:03:10 PM	18803
EPA METHOD 7471: MERCURY						Analyst:	**MED**
Mercury	ND	0.032		mg/Kg	1	4/24/2015 9:48:55 AM	18856
EPA METHOD 6010B: SOIL METALS						Analyst:	**ELS**
Arsenic	ND	5.1		mg/Kg	2	4/22/2015 9:48:19 AM	18813
Barium	280	0.21		mg/Kg	2	4/22/2015 9:48:19 AM	18813
Cadmium	ND	0.21		mg/Kg	2	4/22/2015 9:48:19 AM	18813
Chromium	15	0.62		mg/Kg	2	4/22/2015 9:48:19 AM	18813
Lead	5.2	0.51		mg/Kg	2	4/22/2015 9:48:19 AM	18813
Selenium	ND	5.1		mg/Kg	2	4/22/2015 9:48:19 AM	18813
Silver	ND	0.51		mg/Kg	2	4/22/2015 9:48:19 AM	18813
EPA METHOD 8260B: VOLATILES						Analyst:	**cadg**
Benzene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Toluene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Ethylbenzene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Methyl tert-butyl ether (MTBE)	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
1,2,4-Trimethylbenzene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
1,3,5-Trimethylbenzene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
1,2-Dichloroethane (EDC)	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
1,2-Dibromoethane (EDB)	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Naphthalene	ND	0.096		mg/Kg	1	4/23/2015 5:24:23 AM	18803
1-Methylnaphthalene	ND	0.19		mg/Kg	1	4/23/2015 5:24:23 AM	18803
2-Methylnaphthalene	ND	0.19		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Acetone	ND	0.72		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Bromobenzene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Bromodichloromethane	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Bromoform	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Bromomethane	ND	0.14		mg/Kg	1	4/23/2015 5:24:23 AM	18803
2-Butanone	ND	0.48		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Carbon disulfide	ND	0.48		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Carbon tetrachloride	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Chlorobenzene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Box Area Location #A
Project: Excavation of Underground Tank Area-C
Collection Date: 4/17/2015 11:45:00 AM
Lab ID: 1504856-001
Matrix: SLUDGE
Received Date: 4/20/2015 4:25:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
Chloroethane	ND	0.096		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Chloroform	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Chloromethane	ND	0.14		mg/Kg	1	4/23/2015 5:24:23 AM	18803
2-Chlorotoluene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
4-Chlorotoluene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
cis-1,2-DCE	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
cis-1,3-Dichloropropene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
1,2-Dibromo-3-chloropropane	ND	0.096		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Dibromochloromethane	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Dibromomethane	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
1,2-Dichlorobenzene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
1,3-Dichlorobenzene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
1,4-Dichlorobenzene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Dichlorodifluoromethane	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
1,1-Dichloroethane	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
1,1-Dichloroethene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
1,2-Dichloropropane	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
1,3-Dichloropropane	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
2,2-Dichloropropane	ND	0.096		mg/Kg	1	4/23/2015 5:24:23 AM	18803
1,1-Dichloropropene	ND	0.096		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Hexachlorobutadiene	ND	0.096		mg/Kg	1	4/23/2015 5:24:23 AM	18803
2-Hexanone	ND	0.48		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Isopropylbenzene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
4-Isopropyltoluene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
4-Methyl-2-pentanone	ND	0.48		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Methylene chloride	ND	0.14		mg/Kg	1	4/23/2015 5:24:23 AM	18803
n-Butylbenzene	ND	0.14		mg/Kg	1	4/23/2015 5:24:23 AM	18803
n-Propylbenzene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
sec-Butylbenzene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Styrene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
tert-Butylbenzene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
1,1,1,2-Tetrachloroethane	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
1,1,2,2-Tetrachloroethane	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Tetrachloroethene (PCE)	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
trans-1,2-DCE	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
trans-1,3-Dichloropropene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
1,2,3-Trichlorobenzene	ND	0.096		mg/Kg	1	4/23/2015 5:24:23 AM	18803
1,2,4-Trichlorobenzene	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
1,1,1-Trichloroethane	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Box Area Location #A
Project: Excavation of Underground Tank Area-C
Collection Date: 4/17/2015 11:45:00 AM
Lab ID: 1504856-001
Matrix: SLUDGE
Received Date: 4/20/2015 4:25:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
1,1,2-Trichloroethane	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Trichloroethene (TCE)	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Trichlorofluoromethane	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
1,2,3-Trichloropropane	ND	0.096		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Vinyl chloride	ND	0.048		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Xylenes, Total	ND	0.096		mg/Kg	1	4/23/2015 5:24:23 AM	18803
Surr: Dibromofluoromethane	109	70-130		%REC	1	4/23/2015 5:24:23 AM	18803
Surr: 1,2-Dichloroethane-d4	106	70-130		%REC	1	4/23/2015 5:24:23 AM	18803
Surr: Toluene-d8	93.6	70-130		%REC	1	4/23/2015 5:24:23 AM	18803
Surr: 4-Bromofluorobenzene	99.0	70-130		%REC	1	4/23/2015 5:24:23 AM	18803

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Box Area Location #B
Project: Excavation of Underground Tank Area-C
Collection Date: 4/17/2015 12:00:00 PM
Lab ID: 1504856-002 **Matrix:** SLUDGE **Received Date:** 4/20/2015 4:25:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**KJH**
Diesel Range Organics (DRO)	36	9.8		mg/Kg	1	4/22/2015 7:56:16 PM	18786
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/22/2015 7:56:16 PM	18786
Surr: DNOP	100	57.9-140		%REC	1	4/22/2015 7:56:16 PM	18786
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/22/2015 11:13:40 PM	18803
Surr: BFB	86.7	80-120		%REC	1	4/22/2015 11:13:40 PM	18803
EPA METHOD 7471: MERCURY						Analyst:	**MED**
Mercury	ND	0.034		mg/Kg	1	4/24/2015 9:50:40 AM	18856
EPA METHOD 6010B: SOIL METALS						Analyst:	**ELS**
Arsenic	ND	5.0		mg/Kg	2	4/22/2015 9:49:33 AM	18813
Barium	300	0.20		mg/Kg	2	4/22/2015 9:49:33 AM	18813
Cadmium	ND	0.20		mg/Kg	2	4/22/2015 9:49:33 AM	18813
Chromium	11	0.60		mg/Kg	2	4/22/2015 9:49:33 AM	18813
Lead	5.2	0.50		mg/Kg	2	4/22/2015 9:49:33 AM	18813
Selenium	ND	5.0		mg/Kg	2	4/22/2015 9:49:33 AM	18813
Silver	ND	0.50		mg/Kg	2	4/22/2015 9:49:33 AM	18813
EPA METHOD 8260B: VOLATILES						Analyst:	**cadg**
Benzene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Toluene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Ethylbenzene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Methyl tert-butyl ether (MTBE)	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
1,2,4-Trimethylbenzene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
1,3,5-Trimethylbenzene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
1,2-Dichloroethane (EDC)	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
1,2-Dibromoethane (EDB)	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Naphthalene	ND	0.095		mg/Kg	1	4/23/2015 5:53:11 AM	18803
1-Methylnaphthalene	ND	0.19		mg/Kg	1	4/23/2015 5:53:11 AM	18803
2-Methylnaphthalene	ND	0.19		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Acetone	ND	0.71		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Bromobenzene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Bromodichloromethane	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Bromoform	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Bromomethane	ND	0.14		mg/Kg	1	4/23/2015 5:53:11 AM	18803
2-Butanone	ND	0.48		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Carbon disulfide	ND	0.48		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Carbon tetrachloride	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Chlorobenzene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Box Area Location #B
Project: Excavation of Underground Tank Area-C
Collection Date: 4/17/2015 12:00:00 PM
Lab ID: 1504856-002
Matrix: SLUDGE
Received Date: 4/20/2015 4:25:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
Chloroethane	ND	0.095		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Chloroform	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Chloromethane	ND	0.14		mg/Kg	1	4/23/2015 5:53:11 AM	18803
2-Chlorotoluene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
4-Chlorotoluene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
cis-1,2-DCE	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
cis-1,3-Dichloropropene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
1,2-Dibromo-3-chloropropane	ND	0.095		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Dibromochloromethane	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Dibromomethane	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
1,2-Dichlorobenzene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
1,3-Dichlorobenzene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
1,4-Dichlorobenzene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Dichlorodifluoromethane	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
1,1-Dichloroethane	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
1,1-Dichloroethene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
1,2-Dichloropropane	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
1,3-Dichloropropane	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
2,2-Dichloropropane	ND	0.095		mg/Kg	1	4/23/2015 5:53:11 AM	18803
1,1-Dichloropropene	ND	0.095		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Hexachlorobutadiene	ND	0.095		mg/Kg	1	4/23/2015 5:53:11 AM	18803
2-Hexanone	ND	0.48		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Isopropylbenzene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
4-Isopropyltoluene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
4-Methyl-2-pentanone	ND	0.48		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Methylene chloride	ND	0.14		mg/Kg	1	4/23/2015 5:53:11 AM	18803
n-Butylbenzene	ND	0.14		mg/Kg	1	4/23/2015 5:53:11 AM	18803
n-Propylbenzene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
sec-Butylbenzene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Styrene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
tert-Butylbenzene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
1,1,1,2-Tetrachloroethane	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
1,1,2,2-Tetrachloroethane	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Tetrachloroethene (PCE)	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
trans-1,2-DCE	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
trans-1,3-Dichloropropene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
1,2,3-Trichlorobenzene	ND	0.095		mg/Kg	1	4/23/2015 5:53:11 AM	18803
1,2,4-Trichlorobenzene	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
1,1,1-Trichloroethane	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Box Area Location #B
Project: Excavation of Underground Tank Area-C
Collection Date: 4/17/2015 12:00:00 PM
Lab ID: 1504856-002
Matrix: SLUDGE
Received Date: 4/20/2015 4:25:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
1,1,2-Trichloroethane	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Trichloroethene (TCE)	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Trichlorofluoromethane	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
1,2,3-Trichloropropane	ND	0.095		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Vinyl chloride	ND	0.048		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Xylenes, Total	ND	0.095		mg/Kg	1	4/23/2015 5:53:11 AM	18803
Surr: Dibromofluoromethane	104	70-130		%REC	1	4/23/2015 5:53:11 AM	18803
Surr: 1,2-Dichloroethane-d4	97.7	70-130		%REC	1	4/23/2015 5:53:11 AM	18803
Surr: Toluene-d8	91.0	70-130		%REC	1	4/23/2015 5:53:11 AM	18803
Surr: 4-Bromofluorobenzene	96.7	70-130		%REC	1	4/23/2015 5:53:11 AM	18803

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Box Area Location #C
Project: Excavation of Underground Tank Area-C
Collection Date: 4/17/2015 12:25:00 PM
Lab ID: 1504856-003 **Matrix:** SLUDGE **Received Date:** 4/20/2015 4:25:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**KJH**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/22/2015 8:17:35 PM	18786
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/22/2015 8:17:35 PM	18786
Surr: DNOP	112	57.9-140		%REC	1	4/22/2015 8:17:35 PM	18786
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/22/2015 11:42:18 PM	18803
Surr: BFB	88.7	80-120		%REC	1	4/22/2015 11:42:18 PM	18803
EPA METHOD 7471: MERCURY						Analyst:	**MED**
Mercury	ND	0.032		mg/Kg	1	4/24/2015 9:52:27 AM	18856
EPA METHOD 6010B: SOIL METALS						Analyst:	**ELS**
Arsenic	ND	4.9		mg/Kg	2	4/22/2015 9:50:47 AM	18813
Barium	240	0.20		mg/Kg	2	4/22/2015 9:50:47 AM	18813
Cadmium	ND	0.20		mg/Kg	2	4/22/2015 9:50:47 AM	18813
Chromium	13	0.59		mg/Kg	2	4/22/2015 9:50:47 AM	18813
Lead	5.6	0.49		mg/Kg	2	4/22/2015 9:50:47 AM	18813
Selenium	ND	4.9		mg/Kg	2	4/22/2015 9:50:47 AM	18813
Silver	ND	0.49		mg/Kg	2	4/22/2015 9:50:47 AM	18813
EPA METHOD 8260B: VOLATILES						Analyst:	**cadg**
Benzene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Toluene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Ethylbenzene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Methyl tert-butyl ether (MTBE)	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
1,2,4-Trimethylbenzene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
1,3,5-Trimethylbenzene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
1,2-Dichloroethane (EDC)	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
1,2-Dibromoethane (EDB)	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Naphthalene	ND	0.099		mg/Kg	1	4/23/2015 6:21:59 AM	18803
1-Methylnaphthalene	ND	0.20		mg/Kg	1	4/23/2015 6:21:59 AM	18803
2-Methylnaphthalene	ND	0.20		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Acetone	ND	0.74		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Bromobenzene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Bromodichloromethane	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Bromoform	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Bromomethane	ND	0.15		mg/Kg	1	4/23/2015 6:21:59 AM	18803
2-Butanone	ND	0.49		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Carbon disulfide	ND	0.49		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Carbon tetrachloride	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Chlorobenzene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Box Area Location #C
Project: Excavation of Underground Tank Area-C
Collection Date: 4/17/2015 12:25:00 PM
Lab ID: 1504856-003 **Matrix:** SLUDGE **Received Date:** 4/20/2015 4:25:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
Chloroethane	ND	0.099		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Chloroform	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Chloromethane	ND	0.15		mg/Kg	1	4/23/2015 6:21:59 AM	18803
2-Chlorotoluene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
4-Chlorotoluene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
cis-1,2-DCE	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
cis-1,3-Dichloropropene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
1,2-Dibromo-3-chloropropane	ND	0.099		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Dibromochloromethane	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Dibromomethane	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
1,2-Dichlorobenzene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
1,3-Dichlorobenzene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
1,4-Dichlorobenzene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Dichlorodifluoromethane	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
1,1-Dichloroethane	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
1,1-Dichloroethene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
1,2-Dichloropropane	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
1,3-Dichloropropane	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
2,2-Dichloropropane	ND	0.099		mg/Kg	1	4/23/2015 6:21:59 AM	18803
1,1-Dichloropropene	ND	0.099		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Hexachlorobutadiene	ND	0.099		mg/Kg	1	4/23/2015 6:21:59 AM	18803
2-Hexanone	ND	0.49		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Isopropylbenzene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
4-Isopropyltoluene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
4-Methyl-2-pentanone	ND	0.49		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Methylene chloride	ND	0.15		mg/Kg	1	4/23/2015 6:21:59 AM	18803
n-Butylbenzene	ND	0.15		mg/Kg	1	4/23/2015 6:21:59 AM	18803
n-Propylbenzene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
sec-Butylbenzene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Styrene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
tert-Butylbenzene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
1,1,1,2-Tetrachloroethane	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
1,1,2,2-Tetrachloroethane	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Tetrachloroethene (PCE)	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
trans-1,2-DCE	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
trans-1,3-Dichloropropene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
1,2,3-Trichlorobenzene	ND	0.099		mg/Kg	1	4/23/2015 6:21:59 AM	18803
1,2,4-Trichlorobenzene	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
1,1,1-Trichloroethane	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803

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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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Box Area Location #C
Project: Excavation of Underground Tank Area-C
Collection Date: 4/17/2015 12:25:00 PM
Lab ID: 1504856-003
Matrix: SLUDGE
Received Date: 4/20/2015 4:25:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
1,1,2-Trichloroethane	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Trichloroethene (TCE)	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Trichlorofluoromethane	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
1,2,3-Trichloropropane	ND	0.099		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Vinyl chloride	ND	0.049		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Xylenes, Total	ND	0.099		mg/Kg	1	4/23/2015 6:21:59 AM	18803
Surr: Dibromofluoromethane	112	70-130		%REC	1	4/23/2015 6:21:59 AM	18803
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	4/23/2015 6:21:59 AM	18803
Surr: Toluene-d8	91.4	70-130		%REC	1	4/23/2015 6:21:59 AM	18803
Surr: 4-Bromofluorobenzene	97.2	70-130		%REC	1	4/23/2015 6:21:59 AM	18803

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Box Area Location #D
Project: Excavation of Underground Tank Area-C
Collection Date: 4/17/2015 12:35:00 PM
Lab ID: 1504856-004 **Matrix:** SLUDGE **Received Date:** 4/20/2015 4:25:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**KJH**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/22/2015 8:39:02 PM	18786
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/22/2015 8:39:02 PM	18786
Surr: DNOP	108	57.9-140		%REC	1	4/22/2015 8:39:02 PM	18786
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/23/2015 12:10:57 AM	18803
Surr: BFB	88.4	80-120		%REC	1	4/23/2015 12:10:57 AM	18803
EPA METHOD 7471: MERCURY						Analyst:	**MED**
Mercury	ND	0.032		mg/Kg	1	4/24/2015 9:54:13 AM	18856
EPA METHOD 6010B: SOIL METALS						Analyst:	**ELS**
Arsenic	ND	2.5		mg/Kg	1	4/22/2015 9:30:48 AM	18813
Barium	320	0.20		mg/Kg	2	4/22/2015 9:52:00 AM	18813
Cadmium	ND	0.10		mg/Kg	1	4/22/2015 9:30:48 AM	18813
Chromium	10	0.30		mg/Kg	1	4/22/2015 9:30:48 AM	18813
Lead	4.4	0.25		mg/Kg	1	4/22/2015 9:30:48 AM	18813
Selenium	ND	2.5		mg/Kg	1	4/22/2015 9:30:48 AM	18813
Silver	ND	0.25		mg/Kg	1	4/22/2015 9:30:48 AM	18813
EPA METHOD 8260B: VOLATILES						Analyst:	**cadg**
Benzene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Toluene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Ethylbenzene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Methyl tert-butyl ether (MTBE)	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
1,2,4-Trimethylbenzene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
1,3,5-Trimethylbenzene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
1,2-Dichloroethane (EDC)	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
1,2-Dibromoethane (EDB)	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Naphthalene	ND	0.094		mg/Kg	1	4/23/2015 6:50:49 AM	18803
1-Methylnaphthalene	ND	0.19		mg/Kg	1	4/23/2015 6:50:49 AM	18803
2-Methylnaphthalene	ND	0.19		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Acetone	ND	0.71		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Bromobenzene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Bromodichloromethane	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Bromoform	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Bromomethane	ND	0.14		mg/Kg	1	4/23/2015 6:50:49 AM	18803
2-Butanone	ND	0.47		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Carbon disulfide	ND	0.47		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Carbon tetrachloride	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Chlorobenzene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Box Area Location #D
Project: Excavation of Underground Tank Area-C
Collection Date: 4/17/2015 12:35:00 PM
Lab ID: 1504856-004
Matrix: SLUDGE
Received Date: 4/20/2015 4:25:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
Chloroethane	ND	0.094		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Chloroform	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Chloromethane	ND	0.14		mg/Kg	1	4/23/2015 6:50:49 AM	18803
2-Chlorotoluene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
4-Chlorotoluene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
cis-1,2-DCE	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
cis-1,3-Dichloropropene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
1,2-Dibromo-3-chloropropane	ND	0.094		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Dibromochloromethane	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Dibromomethane	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
1,2-Dichlorobenzene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
1,3-Dichlorobenzene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
1,4-Dichlorobenzene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Dichlorodifluoromethane	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
1,1-Dichloroethane	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
1,1-Dichloroethene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
1,2-Dichloropropane	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
1,3-Dichloropropane	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
2,2-Dichloropropane	ND	0.094		mg/Kg	1	4/23/2015 6:50:49 AM	18803
1,1-Dichloropropene	ND	0.094		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Hexachlorobutadiene	ND	0.094		mg/Kg	1	4/23/2015 6:50:49 AM	18803
2-Hexanone	ND	0.47		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Isopropylbenzene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
4-Isopropyltoluene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
4-Methyl-2-pentanone	ND	0.47		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Methylene chloride	ND	0.14		mg/Kg	1	4/23/2015 6:50:49 AM	18803
n-Butylbenzene	ND	0.14		mg/Kg	1	4/23/2015 6:50:49 AM	18803
n-Propylbenzene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
sec-Butylbenzene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Styrene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
tert-Butylbenzene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
1,1,1,2-Tetrachloroethane	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
1,1,2,2-Tetrachloroethane	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Tetrachloroethene (PCE)	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
trans-1,2-DCE	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
trans-1,3-Dichloropropene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
1,2,3-Trichlorobenzene	ND	0.094		mg/Kg	1	4/23/2015 6:50:49 AM	18803
1,2,4-Trichlorobenzene	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
1,1,1-Trichloroethane	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Box Area Location #D
Project: Excavation of Underground Tank Area-C
Collection Date: 4/17/2015 12:35:00 PM
Lab ID: 1504856-004
Matrix: SLUDGE
Received Date: 4/20/2015 4:25:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **cadg**	
1,1,2-Trichloroethane	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Trichloroethene (TCE)	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Trichlorofluoromethane	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
1,2,3-Trichloropropane	ND	0.094		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Vinyl chloride	ND	0.047		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Xylenes, Total	ND	0.094		mg/Kg	1	4/23/2015 6:50:49 AM	18803
Surr: Dibromofluoromethane	110	70-130		%REC	1	4/23/2015 6:50:49 AM	18803
Surr: 1,2-Dichloroethane-d4	106	70-130		%REC	1	4/23/2015 6:50:49 AM	18803
Surr: Toluene-d8	90.1	70-130		%REC	1	4/23/2015 6:50:49 AM	18803
Surr: 4-Bromofluorobenzene	97.9	70-130		%REC	1	4/23/2015 6:50:49 AM	18803

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Anatek Labs, Inc.

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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 #: 150422033
Project Name: 1504856

Analytical Results Report

Sample Number 150422033-001 **Sampling Date** 4/17/2015 **Date/Time Received** 4/22/2015 11:05 AM
Client Sample ID 1504856-001C / BOX AREA LOCATION #A **Sampling Time** 11:45 AM
Matrix Solid **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	0.247	4/23/2015	CRW	SW846 CH7	
Ignitability	Negative			4/24/2015	JWC	EPA 1030	
pH	8.80	ph Units		4/23/2015	KJS	EPA 9045	
Reactive sulfide	24.7	mg/kg	24.7	4/23/2015	KJS	SW846 CH7	
%moisture	3.7	Percent		4/22/2015	KJS	%moisture	

Sample Number 150422033-002 **Sampling Date** 4/17/2015 **Date/Time Received** 4/22/2015 11:05 AM
Client Sample ID 1504856-002C / BOX AREA LOCATION #B **Sampling Time** 12:00 PM
Matrix Solid **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	0.247	4/23/2015	CRW	SW846 CH7	
Ignitability	Negative			4/24/2015	JWC	EPA 1030	
pH	9.54	ph Units		4/23/2015	KJS	EPA 9045	
Reactive sulfide	29.6	mg/kg	24.7	4/23/2015	KJS	SW846 CH7	
%moisture	15	Percent		4/22/2015	KJS	%moisture	

Sample Number 150422033-003 **Sampling Date** 4/17/2015 **Date/Time Received** 4/22/2015 11:05 AM
Client Sample ID 1504856-003C / BOX AREA LOCATION #C **Sampling Time** 12:25 PM
Matrix Solid **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	0.281	mg/Kg	0.247	4/23/2015	CRW	SW846 CH7	
Ignitability	Negative			4/24/2015	JWC	EPA 1030	
pH	9.56	ph Units		4/23/2015	KJS	EPA 9045	
Reactive sulfide	29.6	mg/kg	24.7	4/23/2015	KJS	SW846 CH7	
%moisture	5.4	Percent		4/22/2015	KJS	%moisture	

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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 #: 150422033
Project Name: 1504856

Analytical Results Report

Sample Number 150422033-004 **Sampling Date** 4/17/2015 **Date/Time Received** 4/22/2015 11:05 AM
Client Sample ID 1504856-004C / BOX AREA LOCATION #D **Sampling Time** 12:35 PM
Matrix Solid **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	0.234	4/23/2015	CRW	SW846 CH7	
Ignitability	Negative			4/24/2015	JWC	EPA 1030	
pH	8.92	ph Units		4/23/2015	KJS	EPA 9045	
Reactive sulfide	28.1	mg/kg	23.4	4/23/2015	KJS	SW846 CH7	
%moisture	18.2	Percent		4/22/2015	KJS	%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.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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

Batch #: 150422033
Project Name: 1504856

Analytical Results Report

Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Reactive sulfide	0.2	mg/kg	0.2	100.0	70-130	4/23/2015	4/23/2015
Cyanide (reactive)	0.487	mg/kg	0.5	97.4	90-110	4/23/2015	4/23/2015

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
150422033-002	Reactive sulfide	29.6	69.2	mg/kg	49.4	80.2	70-130	4/23/2015	4/23/2015
150422033-001	Cyanide (reactive)	ND	11.5	mg/kg	12.35	93.1	80-120	4/23/2015	4/23/2015

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide (reactive)	11.3	mg/kg	12.35	91.5	1.8	0-25	4/23/2015	4/23/2015

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide (reactive)	ND	mg/Kg	1	4/23/2015	4/23/2015
Reactive sulfide	ND	mg/kg	1	4/23/2015	4/23/2015

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; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1504856**
24-Apr-15

Client: Western Refining Southwest, Gallup
Project: Excavation of Underground Tank Area-Confirm

Sample ID **LCS-18786** SampType: **LCS** TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **18786** RunNo: **25664**
Prep Date: **4/20/2015** Analysis Date: **4/22/2015** SeqNo: **761215** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.9	67.8	130			
Surr: DNOP	5.3		5.000		107	57.9	140			

Sample ID **1504856-001AMS** SampType: **MS** TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **Box Area Location #** Batch ID: **18786** RunNo: **25664**
Prep Date: **4/20/2015** Analysis Date: **4/22/2015** SeqNo: **761217** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	65	9.8	49.07	6.495	119	29.2	176			
Surr: DNOP	5.6		4.907		115	57.9	140			

Sample ID **1504856-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **Box Area Location #** Batch ID: **18786** RunNo: **25664**
Prep Date: **4/20/2015** Analysis Date: **4/22/2015** SeqNo: **761218** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	9.9	49.31	6.495	95.1	29.2	176	19.3	23	
Surr: DNOP	4.7		4.931		95.5	57.9	140	0	0	

Sample ID **MB-18786** SampType: **MBLK** TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **18786** RunNo: **25664**
Prep Date: **4/20/2015** Analysis Date: **4/22/2015** SeqNo: **761222** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.8		10.00		87.6	57.9	140			

Sample ID **MB-18847** SampType: **MBLK** TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **18847** RunNo: **25692**
Prep Date: **4/23/2015** Analysis Date: **4/23/2015** SeqNo: **762321** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.8		10.00		77.8	57.9	140			

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 Not In Range
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#: **1504856**
24-Apr-15

Client: Western Refining Southwest, Gallup
Project: Excavation of Underground Tank Area-Confirm

Sample ID **MB-18803** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **18803** RunNo: **25665**
Prep Date: **4/21/2015** Analysis Date: **4/22/2015** SeqNo: **761162** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	850		1000		85.0	80	120			

Sample ID **LCS-18803** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **18803** RunNo: **25665**
Prep Date: **4/21/2015** Analysis Date: **4/22/2015** SeqNo: **761163** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.6	64	130			
Surr: BFB	940		1000		94.4	80	120			

Sample ID **1504856-001AMS** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **Box Area Location #** Batch ID: **18803** RunNo: **25665**
Prep Date: **4/21/2015** Analysis Date: **4/22/2015** SeqNo: **761165** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.8	24.08	2.089	103	47.9	144			
Surr: BFB	940		963.4		97.2	80	120			

Sample ID **1504856-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **Box Area Location #** Batch ID: **18803** RunNo: **25665**
Prep Date: **4/21/2015** Analysis Date: **4/22/2015** SeqNo: **761166** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	4.8	24.11	2.089	109	47.9	144	5.36	29.9	
Surr: BFB	930		964.3		96.2	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 Not In Range
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#: **1504856**
24-Apr-15

Client: Western Refining Southwest, Gallup
Project: Excavation of Underground Tank Area-Confirm

Sample ID **mb-18803**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles**			
Client ID: **PBS**	Batch ID: **18803**	RunNo: **25687**			
Prep Date: **4/21/2015**	Analysis Date: **4/23/2015**	SeqNo: **761249**	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	0.050								
Chlorobenzene	ND	0.050								
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	0.050								
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	0.050								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								

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 Not In Range
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#: **1504856**
24-Apr-15

Client: Western Refining Southwest, Gallup
Project: Excavation of Underground Tank Area-Confirm

Sample ID **mb-18803** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **PBS** Batch ID: **18803** RunNo: **25687**
Prep Date: **4/21/2015** Analysis Date: **4/23/2015** SeqNo: **761249** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
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: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.44		0.5000		87.8	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.3	70	130			

Sample ID **lcs-18803** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **LCSS** Batch ID: **18803** RunNo: **25687**
Prep Date: **4/21/2015** Analysis Date: **4/23/2015** SeqNo: **761250** 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	106	70	130			
Toluene	0.87	0.050	1.000	0	87.3	70	130			
Chlorobenzene	0.98	0.050	1.000	0	97.9	70	130			

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 Not In Range
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#: **1504856**
24-Apr-15

Client: Western Refining Southwest, Gallup
Project: Excavation of Underground Tank Area-Confirm

Sample ID **lcs-18803** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles**
Client ID: **LCSS** Batch ID: **18803** RunNo: **25687**
Prep Date: **4/21/2015** Analysis Date: **4/23/2015** SeqNo: **761250** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	1.3	0.050	1.000	0	126	60.6	134			
Trichloroethene (TCE)	0.88	0.050	1.000	0	88.4	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		107	70	130			
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.44		0.5000		87.6	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.8	70	130			

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 Not In Range
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#: **1504856**
24-Apr-15

Client: Western Refining Southwest, Gallup
Project: Excavation of Underground Tank Area-Confirm

Sample ID	**MB-18856**	SampType:	**MBLK**	TestCode:	**EPA Method 7471: Mercury**
Client ID:	**PBS**	Batch ID:	**18856**	RunNo:	**25719**
Prep Date:	**4/23/2015**	Analysis Date:	**4/24/2015**	SeqNo:	**762496** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	**LCS-18856**	SampType:	**LCS**	TestCode:	**EPA Method 7471: Mercury**
Client ID:	**LCSS**	Batch ID:	**18856**	RunNo:	**25719**
Prep Date:	**4/23/2015**	Analysis Date:	**4/24/2015**	SeqNo:	**762497** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1667	0	108	80	120			

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 Not In Range
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#: **1504856**
24-Apr-15

Client: Western Refining Southwest, Gallup
Project: Excavation of Underground Tank Area-Confirm

Sample ID	**MB-18813**	SampType:	**MBLK**	TestCode:	**EPA Method 6010B: Soil Metals**
Client ID:	**PBS**	Batch ID:	**18813**	RunNo:	**25662**
Prep Date:	**4/21/2015**	Analysis Date:	**4/22/2015**	SeqNo:	**760566** 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								
Lead	ND	0.25								
Selenium	ND	2.5								
Silver	ND	0.25								

Sample ID	**LCS-18813**	SampType:	**LCS**	TestCode:	**EPA Method 6010B: Soil Metals**
Client ID:	**LCSS**	Batch ID:	**18813**	RunNo:	**25662**
Prep Date:	**4/21/2015**	Analysis Date:	**4/22/2015**	SeqNo:	**760567** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	25	2.5	25.00	0	98.1	80	120			
Barium	25	0.10	25.00	0	98.7	80	120			
Cadmium	24	0.10	25.00	0	96.6	80	120			
Chromium	25	0.30	25.00	0	99.5	80	120			
Lead	25	0.25	25.00	0	99.0	80	120			
Selenium	25	2.5	25.00	0	98.6	80	120			
Silver	5.2	0.25	5.000	0	103	80	120			

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 Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
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: **1504856** RcptNo: 1

Received by/date: CS 04/20/15

Logged By: **Ashley Gallegos** **4/20/2015 4:25:00 PM** AG

Completed By: **Ashley Gallegos** **4/21/2015 8:59:58 AM** AG

Reviewed By: CS 04/21/15

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? Courier

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? Yes ☑ No ☐ # of preserved bottles checked for pH: (<2 or >12 unless noted)
    (Note discrepancies on chain of custody)
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? Yes ☑ No ☐ Checked by:
    (If no, notify customer for authorization.)

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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.6	Good	Yes			

Chain-of-Custody Record

Client: Western - Refining

Mailing Address: 92 GIANT CROSSING ROAD

Gallup NM 87301

Phone #: 505 722 3833

email or Fax#: 505 863 0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☐ Standard ☒ Rush _____

Project Name:

Excavation of Underground Tank Area- Confirmation Samples

Project #:

North of Bullet Tanks

Project Manager:

Beck Larsen

Sampler: K.Sanchez (ACT)

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.6°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

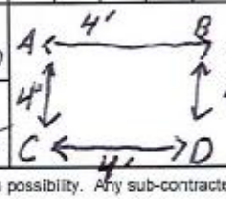
4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1504856	BTEX (8021B)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO/DRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH (8310 or 8270SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) Totals		RCI	Metals			Air Bubbles (Y or N)
4/17/2015	11:45	Soil	Box Area Location # A	9 oz - 3	None	-001			X							X		X	X			
4/17/2015	12:00	Soil	Box Area Location # B	9 oz - 3	None	-002			X							X		X	X			
4/17/2015	12:25	Soil	Box Area Location # C	9 oz - 3	None	-003			X							X		X	X			
4/17/2015	12:35	Soil	Box Area Location # D	9 oz - 3	None	-004			X							X		X	X			

Date	Time	Relinquished by	Received by	Date	Time
~~4/17/2015~~ 4-20-15	Time: 13:00	[signature]	[signature]	4-20-15 ~~4/20/14~~	1300
Date:	Time:	Relinquished by:	Received by: [signature]	04/20/15	1625



Remarks:
Comfirmation Samples

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Appendix B

Photographs

Photo 1

JUNCTION BOX

Photo 2

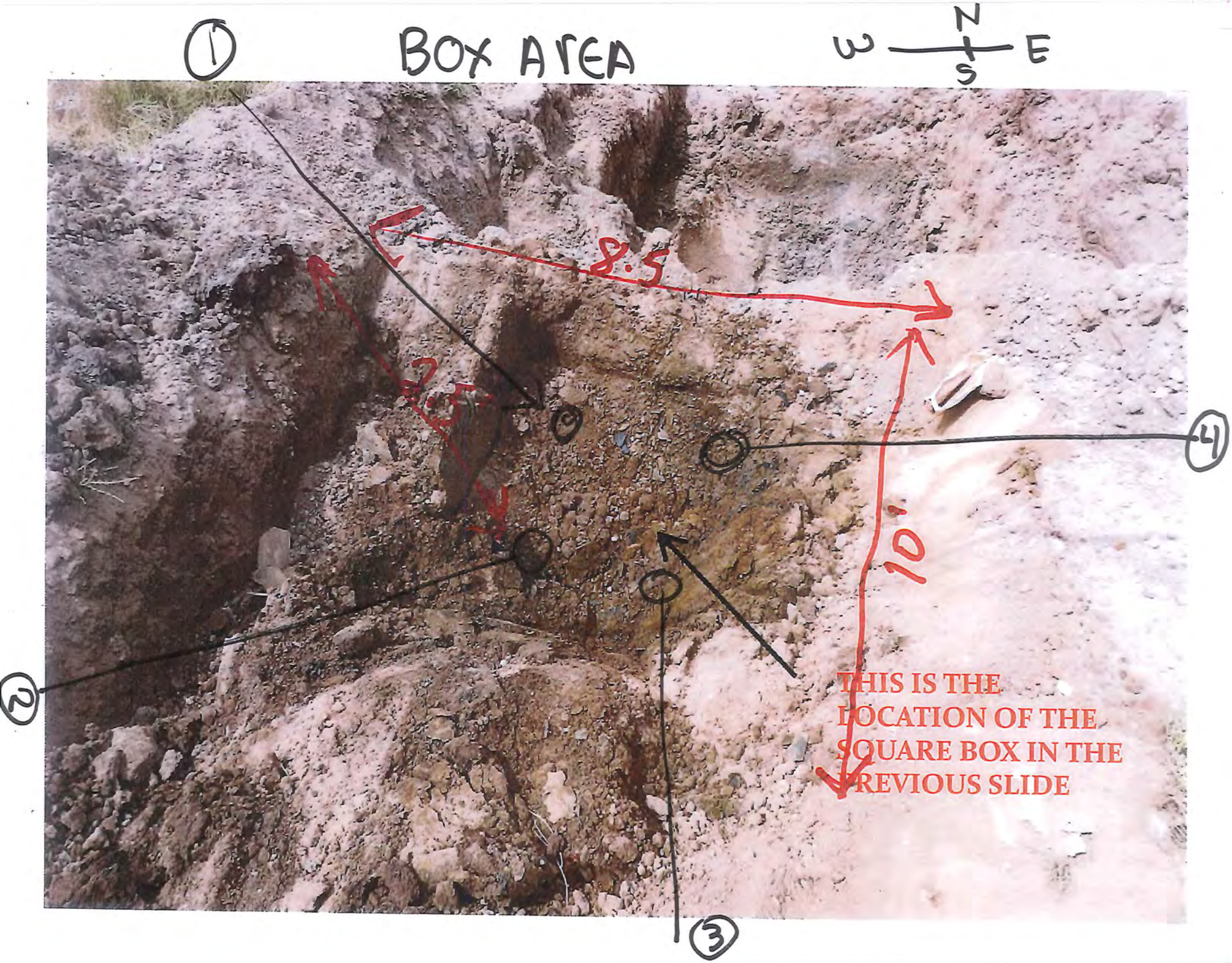
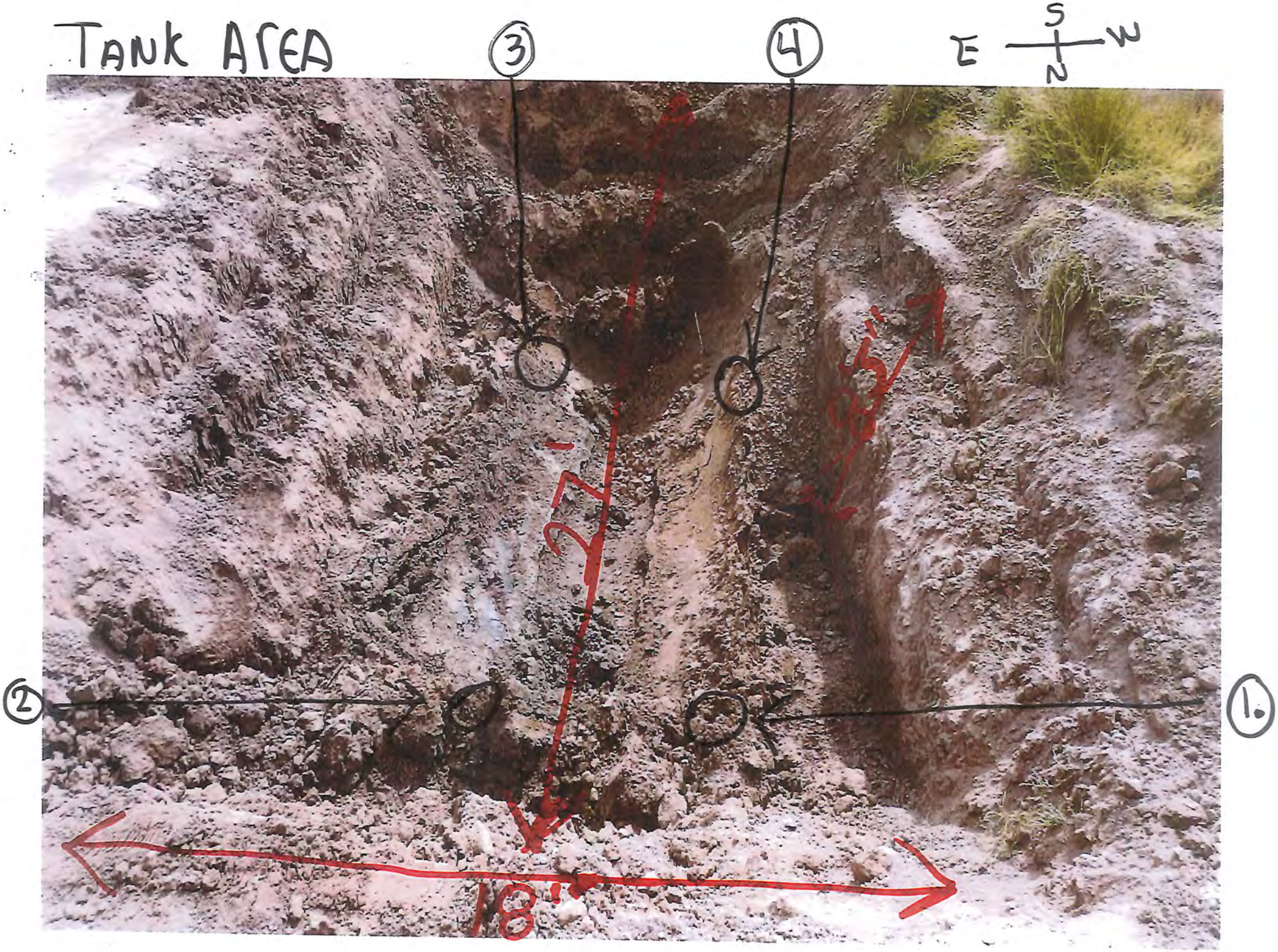

1
BOX AREA
N
W
E
S
8.5
8.5
10'
2
3
4
THIS IS THE
LOCATION OF THE
SQUARE BOX IN THE
PREVIOUS SLIDE

Photo 3

TANK AREA



Appendix C

Waste Manifests

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: NMD000033211

Manifest Document No.: 068914

2. Page 1 of 1

3. Generator's Name and Mailing Address
WESTERN REFINING SOUTHWEST GALLUP REFINING
I-40 exit 39 Route 3 Box 7
Jamestown, NM 87347

4. Generator's Phone ( ) 505 722 0258

5. Transporter 1 Company Name: Advanced Chemical Transport Inc. (SV)

6. US EPA ID Number: CAR000070540

A. State Transporter's ID

B. Transporter 1 Phone: 408-548-5050

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
RED ROCK LANDFILL
101 RED MESA BLUFF DRIVE
THOREAU, NM 87323

10. US EPA ID Number: SWM0517405P

E. State Facility's ID

F. Facility's Phone

11. WASTE DESCRIPTION	Containers No.	Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non-RCRA/Non-DOT Regulated Material Solid (TPH SOIL)	1	CM	12.06 / 18	T ~~TON~~
b.				
c.				
d.				

GENERATOR

G. Additional Descriptions for Materials Listed Above
Project Number 60235
1)ERG#; TPH-RR-UGT WER-
UST

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
24 hour emergency contact:
CHEMTREC 800-424-9300
Gen # A20-024

NON-HAZARDOUS WASTE

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Alvin Dorsey
Signature: Alvin Dorsey
Date: Month 12 Day 02 Year 14

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: John Grey
Signature
Date: Month 12 Day 02 Year 14

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.
Printed/Typed Name
Signature
Date: Month Day Year

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101 Red Mesa Bluffs Drive
PO Box 1330
Thoreau, NM 87323

003475 WESTERN REFINERY
PO BOX 62558
PHOENIX AZ 85082-2558

SITE	TICKET	GRID	WEIGHMASTER
02	058643		MARK

DATE IN	DATE OUT	TIME IN	TIME OUT	VEHICLE	ROLL OFF
12/02/14	12/02/14	14:20	15:01		

REFERENCE	ORIGIN
20820025	MCKINLEY COUNTY

Manual Gross Wt.	64180	LB	Inbound - Charge ticket
Manual Tare Wt.	40060	LB	
Net Weight	24120	LB	

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
12.06	TON	P C S	45.00	542.70	0.00	542.70

Operating hours 8AM to 4:30PM Monday thru Friday. This is to certify that this load does not contain any hazardous materials, medical waste or liquids of any type.
Driver was ON/OFF vehicle during weighing.
Comment ACT TRK#81 D68914
GPS N35.25.493 W108.06.585 EL7074

TAX	0.00
Scale Fee	0.00
NET AMOUNT	542.70
TENDERED	
CHANGE	
CHECK NO.	

WWGTI TO REORDER CONTACT CAROLINA SOFTWARE (910) 799-6767 SIGNATURE

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: NMD000333211

Manifest Document No.: DL 8560

2. Page 1 of 1

3. Generator's Name and Mailing Address
WESTERN REFINING SOUTHWEST GALLUP REFINING
I-40 exit 39 Route 3 Box 7
Jamestown, NM 87347

4. Generator's Phone (505 722 0258

5. Transporter 1 Company Name: Advanced Chemical Transport Inc. (SV)

6. US EPA ID Number: CAR000070540

A. State Transporter's ID

B. Transporter 1 Phone: 408-548-5060

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
RED ROCK LANDFILL
101 RED MESA BLUFF DRIVE
THOREAU, NM 87323

10. US EPA ID Number: SWM0517405P

E. State Facility's ID

F. Facility's Phone

GENERATOR

11. WASTE DESCRIPTION	Containers No.	Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non-RCRA/Non-DOT Regulated Material Solid (TPH SOIL)	1	CM	14.40 18	TON
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above
Project Number 60102
UERG#; TPH-RR-UGT WER-

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
24 hour emergency contact:
CHEMTREC 800-424-9300
TANK Excavation
BIN#20B-27

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: JANICE TSO
Signature:
Date: Month 11 Day 04 Year 14

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Chris Lopez
Signature:
Date: Month 11 Day 4 Year 14

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.
Printed/Typed Name
Signature
Date: Month Day Year

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PRINTED WITH SOY INK

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NMD000033211

Manifest Document No. 068805

2. Page 1 of 1

3. Generator's Name and Mailing Address
WESTERN REFINING SOUTHWEST GALLUP REFINING
I-40 exit 39 Route 3 Box 7
Jamestown, NM 87347

4. Generator's Phone (505 722 0258)

5. Transporter 1 Company Name: Advanced Chemical Transport Inc. (SV)

6. US EPA ID Number: CAR000070540

A. State Transporter's ID

B. Transporter 1 Phone: 408-548-5050

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
RED ROCK LANDFILL
101 RED MESA BLUFF DRIVE
THOREAU, NM 87323

10. US EPA ID Number: SWM051740SP

E. State Facility's ID

F. Facility's Phone

11. WASTE DESCRIPTION	Containers No.	Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non-RCRA/Non-DOT Regulated Material Solid (TPH SOIL)	1	CM	14.53	TON
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above
Project Number 60103
LIERG#; TPH-RR-UGT WER:

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
24 hour emergency contact:
CHEMTREC 800-424-9300
TANK Excavation
BIN # 20 B-001

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: JANICE TSO
Signature
Date: Month 11 Day 05 Year 14

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Chris Lopez
Signature
Date: Month 11 Day 5 Year 14

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.
Printed/Typed Name
Signature
Date: Month Day Year

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY

PRINTED ON RECYCLED PAPER USING SOYBEAN INK
PRINTED WITH SOY INK

101 Red Mesa Bluffs Drive
PO Box 1330
Thoreau, NM 87323

003475 WESTERN REFINERY
PO BOX 62558
PHOENIX AZ 85082-2558

SITE	TICKET	GRID	WEIGHMASTER
02	057648		MARK

DATE IN	DATE OUT	TIME IN	TIME OUT	VEHICLE	ROLL OFF
✓11/04/14	11/04/14	14:37	15:22		

REFERENCE	ORIGIN
20820025	MCKINLEY COUNTY

Scale 1 Gross Wt. 67160 LB
Scale 1 Tare Wt. 38360 LB
Net Weight 28800 LB

Inbound - Charge ticket

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
✓14.40	TON	P C S	45.00	648.00	0.00	648.00

Operating hours 8AM to 4:30PM Monday thru Friday. This is TAX 0.00
certify that this load does not contain any hazardous Scale Fee 0.00
materials; medical waste or liquids of any type.
Driver was ON/OFF vehicle during weighing.
Comment ACT TRK#T51 D68804
GPS N35.25.493 W108.06.585 EL7074

NET AMOUNT 648.00
TENDERED
CHANGE
CHECK NO.

WWGTI TO REORDER CONTACT CAROLINA SOFTWARE (910) 799-6767 SIGNATURE

101 Red Mesa Bluffs Drive
PO Box 1330
Thoreau, NM 87323

003475 WESTERN REFINERY
PO BOX 62558
PHOENIX AZ 85082-2558

SITE	TICKET	GRID	WEIGHMASTER
02	057678		MARK

DATE IN	DATE OUT	TIME IN	TIME OUT	VEHICLE	ROLL OFF
✓11/05/14	11/05/14	13:42	14:39		

REFERENCE	ORIGIN
20820025	MCKINLEY COUNTY

Scale 1 Gross Wt. 69000 LB
Scale 1 Tare Wt. 39940 LB
Net Weight 29060 LB

Inbound - Charge ticket

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
✓14.53	TON	P C S	45.00	653.85	0.00	653.85

Operating hours 8AM to 4:30PM Monday thru Friday. This is TAX 0.00
certify that this load does not contain any hazardous Scale Fee 0.00
materials, medical waste or liquids of any type.
Driver was ON/OFF vehicle during weighing.
Comment ACT TRK#T51 D68805
GPS N35.25.493 W108.06.585 EL7074

NET AMOUNT 653.85
TENDERED
CHANGE
CHECK NO.

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NMD000333211

Manifest Document No. 068514

2. Page 1 of 1

3. Generator's Name and Mailing Address
WESTERN REFINING SOUTHWEST GALLUP REFINING
I-40 exit 39 Route 3 Box 7
Jamestown, NM 87347

4. Generator's Phone (505 722 0258)

5. Transporter 1 Company Name: Advanced Chemical Transport Inc. (SV)

6. US EPA ID Number: CAD000070540

A. State Transporter's ID

B. Transporter 1 Phone: 406-548-5000

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
RED ROCK LANDFILL
101 RED MESA BLUFF DRIVE
THOREAU, NM 87323

10. US EPA ID Number: NVR051740 5P

E. State Facility's ID

F. Facility's Phone

11. WASTE DESCRIPTION	Containers No.	Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non-RCRA/Non-DOT Regulated Material Solid (TPH SOIL)	1	CM	13.35	TON
b.			13.126	
c.				
d.				

GENERATOR

G. Additional Descriptions for Materials Listed Above
Project Number 591817
LERG#; TPH-RR-UST WER-
Underground Tank Excavation Bin 20B-027

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
CHEMTREC 800-424-9300

NON-HAZARDOUS WASTE

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: JANICE TSO | Signature | Date Month 10 Day 31 Year 14

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Justin Gray | Signature | Date Month 10 Day 31 Year 14

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.
Printed/Typed Name | Signature | Date Month Day Year

2430 lb/yd³ → 24252 # = 10.8 yd³

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NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NMD000033211

Manifest Document No. D68510

2. Page 1 of 1

3. Generator's Name and Mailing Address
WESTERN REFINING SOUTHWEST GALLUP REFINING
I-40 exit 39 Route 3 Box 7
Jamestown, NM 87347

4. Generator's Phone (505 722 0258)

5. Transporter 1 Company Name: Advanced Chemical Transport Inc. (SV)

6. US EPA ID Number: CAR000070540

A. State Transporter's ID

B. Transporter 1 Phone: 408-548-5050

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
RED ROCK LANDFILL
101 RED MESA BLUFF DRIVE
THOREAU, NM 87323

10. US EPA ID Number: SWM0517405P

E. State Facility's ID

F. Facility's Phone

GENERATOR

11. WASTE DESCRIPTION	Containers No.	Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non-RCRA/Non-DOT Regulated Material Solid (TPH SOIL)	1	CM	14.60 13620	TON
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above
Project Number 59505
UERG#: TPH-RR-UGT WER- ACT-2016
Under ground Tank ~~Exavation~~ Excavation

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
CHEMTREC 800-424-9300

NON-HAZARDOUS WASTE

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: JAMES TIO | Signature | Date: Month 10 Day 31 Year 14

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: John Gray | Signature | Date: Month 10 Day 31 Year 14

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.
Printed/Typed Name | Signature | Date: Month Day Year

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PRINTED WITH SOY INK

101 Red Mesa Bluffs Drive
PO Box 1330
Thoreau, NM 87323

003475 WESTERN REFINERY
PO BOX 62558
PHOENIX AZ 85082-2558

SITE	TICKET	GRID	WEIGHMASTER
02	057521		Bren

DATE IN	DATE OUT	TIME IN	TIME OUT	VEHICLE	ROLL OFF
10/31/14	10/31/14	16:55	16:55		

REFERENCE	ORIGIN
2082025	MCKINLEY COUNTY

Manual Gross Wt.	68480	LB
Manual Tare Wt.	41780	LB
Net Weight	26700	LB

Inbound - Charge ticket

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
13.35	TON	P C S	45.00	600.75	0.00	600.75

Operating hours 8AM to 4:30PM Monday thru Friday. This is to certify that this load does not contain any hazardous materials, medical waste or liquids of any type.
Driver was ON/OFF vehicle during weighing.
Comment ACTT#T89 D68510
GPS N35.25.493 W108.06.585 EL7074

TAX	0.00
Scale Fee	0.00

NET AMOUNT 600.75
TENDERED
CHANGE
CHECK NO.

WW6TI TO REORDER CONTACT CAROLINA SOFTWARE (910) 799-6767 SIGNATURE _____

101 Red Mesa Bluffs Drive
PO Box 1330
Thoreau, NM 87323

003475 WESTERN REFINERY
PO BOX 62558
PHOENIX AZ 85082-2558

SITE	TICKET	GRID	WEIGHMASTER
02	057518		Bren

DATE IN	DATE OUT	TIME IN	TIME OUT	VEHICLE	ROLL OFF
10/31/14	10/31/14	16:49	16:49		

REFERENCE	ORIGIN
20820025	MCKINLEY COUNTY

Manual Gross Wt.	72200	LB
Manual Tare Wt.	43000	LB
Net Weight	29200	LB

Inbound - Charge ticket

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
14.60	TON	P C S	45.00	657.00	0.00	657.00

Operating hours 8AM to 4:30PM Monday thru Friday. This is to certify that this load does not contain any hazardous materials, medical waste or liquids of any type.
Driver was ON/OFF vehicle during weighing.
Comment ACTTK#T89 D68514
GPS N35.25.493 W108.06585 EL7074

TAX	0.00
Scale Fee	0.00

NET AMOUNT 657.00
TENDERED
CHANGE
CHECK NO.

WW6TI TO REORDER CONTACT CAROLINA SOFTWARE (910) 799-6767 SIGNATURE